Proceedings of the 2nd Borobudur International Symposium on Humanities and Social Sciences

18 November 2020
Magelang, Central Java, Indonesia

BIS-HSS 2020

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Preface: Covid-19 Pandemic, We Should Adapt and Overcome!!!

The Covid-19 pandemic has changed our activities, like teaching, researching, and socializing. We are confused because we haven’t experienced before. However, as Earth's smartest inhabitants, we can adapt new ways to survive the pandemic without losing enthusiasm. Therefore, even in pandemic conditions, we can still have scientific discussions, even virtually.

The main theme of this symposium is "Reinforcement of the Sustainable Development Goals Post Pandemic" as a part of the masterplan of United Nations for sustainable development goals in 2030. Let me inform you that this symposium is attended by 348 presenters from Indonesia, Malaysia, UK, Scotland, Thailand, Taiwan, Tanzania and Timor Leste.

Certainly, this event will not be successful without the support of co-hosts. On behalf of the Committee, we thank the co-hosts: Universitas Muhammadiyah Purworejo; Universitas Muhammadiyah Ponorogo; Universitas Muhammadiyah Pekajangan Pekalongan; Universitas Muhammadiyah Maluku Utara; Universitas Muhammadiyah Lampung; Universitas Lambung Mangkurat; Universitas Islam 45 Bekasi; Universitas Bhayangkara Jakarta Raya; STIKES Muhammadiyah Gombong; Sekolah Tinggi Ilmu Ekonomi YPPI Rembang; Sekolah Tinggi Ilmu Ekonomi Syariah Indonesia Purwakarta; Politeknik Pikesi Ganesh Bandung; Politeknik Negeri Samarinda; Politeknik Dharma Patria Kebumen; Politeknik Energi dan Mineral Akamigas Blora; Institut Agama Islam Negeri Purwokerto; and Institut Agama Islam Muhammadiyah Sinjai.

Because of the importance of this symposium, we present world-class keynote speakers whom able to capture these scientific topics, they are:
First, Assoc. Prof. Pensri Jaroenwanit, Ph.D. from Khon Kaen Business School, Thailand. Second, Dr. Heni Setyowati Esti Rahayu, Dean of Faculty of Health Science, Universitas Muhammadiyah Magelang. Third, Prof. Yinghuei Chen, Dean of International College, Asia University, Taiwan. Finally, Assoc. Prof. Dr. Eng. Thomas Kivevele, from Nelson Mandela African Institute of Science and Technology, Tanzania.

Furthermore, we are delighted to introduce the proceedings of the 2nd Borobudur Symposium Borobudur on Humanities and Social Sciences 2020 (2nd BIS-HSS 2020), which include: Art & Linguistics; Communication; Economics; Education; Government Studies; Health Administration; Hospitality; International Relations; Law; Political Studies; Psychology; Public Health; Religious Studies; Sociology; Health Sciences; and Selected Applied Sciences. We hope our later discussion may result transfer of experiences and research findings from participants to others and from keynote speakers to participants. Also, we hope this event can create further research network.

Muji Setiyo, Zulfikar Bagus Pambuko, Chrisna Bagus Pambuko, Agus Setiawan, Veni Soraya Dewi, Fitiana Yuliastuti
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Validation of the Indonesian Version of the Future Time Perspective (FTP-I) Scale: Study on Student Sample

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Abstract. There is growing attention in the measurement of future time perspective in the last couple of decades. This concept has been demonstrated to help people manage and achieve goals, including acquiring knowledge, extending social networks, and managing positive emotional experiences. The scale was initially developed in the Occidental countries and widely used there. The authors aimed to translate and validate the Future Time Perspective (FTP) scale into the Indonesian language and test the scale’s psychometric properties. Four hundred thirty-one psychology students were recruited to complete the Indonesian version of the scale. Analysis of the scale’s internal consistency, construct, and factorial validity was performed using the Exploratory Factor Analysis (EFA). The EFA analysis confirmed the two-factor model of the 10-item FTP-I scale as the best solution. Implications and future recommendations of the current study are discussed.

Keywords: Future time perspective, Exploratory factor analysis, Student, Validation

1 Introduction

Future time perspective (FTP) is an important concept associated with people's quality of life. FTP defines as individuals' view of personal future, including perceived opportunities and limitations they are expected to encounter in the future [1]. It is characterized by extension and valence [2]; [3]. Extension refers to the period in the future in which an event is represented in someone's perspective. While valence means one's attempt to value future goals as something meaningful, FTP might be considered a personality trait involving people's thoughts, feelings, and actions related to their futures [4]. FTP involves the degree and manner in which the future is integrated into present lives through defining objectives [3]. FTP is an individual disposition to value opportunities, even though they would achieve a distant future [5]. In early studies, Lewin [1] argued that FTP is considered a psychological variable because individuals' life space consists of geographical and social surroundings but also a time dimension. Times provides people to set their activities along with their time range. Time also provides individuals with a point of reference [7]; [8] interprets past, present, and anticipate future experiences. FTP helps people planning their goals and commitments [9]. Therefore, individuals need to acknowledge their own pace in life based on time anticipation that they are perceived.

The characteristic measurement of FTP is the scale of 10 points by Carstensen [10]. He pointed out that FTP could be seen as a unidimensional and simultaneously bipolar idea that can be measured from a 'limited' future (a perception that it takes a short time to live) to a 'open'
future (an perception that life is ahead of us) [12]. Within the socio-emotional selectivity theory (SST), the FTP scale was developed to ensure a homogenous and one-factorial measurement of the later mental representations in life.

Scholars suggest that the measurement of FTP based on a multidimensional approach is best to describe this concept. Contrary to the previous notion about the range bipolar concept on the future perspective scale, Cate & John (2007) suggested FTP could be understood by focusing on the opportunities and the limiting factors. Cate & John (2007) provided evidence for these two-dimensional FTP after doing several studies. Previous studies also provide evidence for this concept's two-dimensional nature [13],[14]. Several non-Western countries have indicated that the FTP scale has two-factor solutions (e.g., the Chinese FTP version by Lyu & Huang [16]. The multidimensional model also gives the researcher opportunities to explore the FTP concept and other variables, such as age variances.

Most of the studies on FTP scale adaptation were primarily conducted in the occidental nation's context. The oriental country, only Chinese (mainland, Hongkong, & Taiwan) and Japan, were identified in the literature. This concept has not been systematically developed in Indonesia. Developing an Indonesian version of FTP would potentially assist future research and stakeholders to understand this concept better.

This study aims to develop the Indonesian version of the FTP scale using the translate-back translate approach and investigate its psychometric properties. The analysis would include internal consistency and exploratory factor analysis (EFA). This study was the first in the Indonesian version to develop and validate the FTP.

2 Methods

2.1 Participants

Participants were 431 (79% females and 21% males) psychology students recruited across the country. The online survey was initiated due to social interaction restriction regulation applied during the COVID-19 pandemic. The majority of the respondents (95%) were lived with their families, and the rest were lived alone (5%). The three largest groups were those 19 years-old (25%), 20 years-old (27%), and 21 years-old (20%).

2.2 Measures

The online survey consists of an information sheet, consent form, demographic questions, and translated versions of the Future Time Perspective scale were presented to the respondents.

2.3 Future time perspective Indonesian version scale FTP-I

The FTP-I scale was developed and administered in the researchers' online form to 431 psychology participants from across the country. The original FTP scale was initially developed by Lang [17]. The scale includes ten items rated on a 7-point Likert scale (from 1 = very untrue to 7 = very true). The last three items (Item 8, 9, 10) were coded reversed. Participants' mean scores were used to indicate their FTP level. The internal consistency of this scale was satisfactory (Cronbach's $\alpha = .80$). The FTP has been successfully adapted and validated in other languages (e.g., Chinese, Italian, Japanese, & Turkish) with good psychometric results.
2.4 Data collection

Data have been collected via an online survey. All participants were informed of the confidentiality of the study and requested their consent to take part in this study. The battery consisted of study information and a short report. Participants were encouraged through publications on social media platforms (such as WhatsApp, Facebook, Instagram), public university emails and professional networks of authors by providing a link to an online survey.

2.5 Study design

The data were analysed with an Exploratory Factor (EFA) to determine the underlying factor structure of the scale. The analysis of the psychometric properties of the scale with the alpha of Cronbach. Three indicators used for factor retention in the EFA are, 1) Factors had initial eigenvalues > 1.0; 2) The changes of point of inflection in the scree plot; and 3) Parallel analysis (PA). Horn's PA would be used to confirm FTP factors' dimensionality by comparing the empirical correlation matrix's eigenvalues to eigenvalues resulted from random correlation matrices [18]. In SPSS version 25, preliminary assumption checks were applied to the data. There was no missing FTP-I data.

3 Results and Discussion

3.1 Result

3.1.1 Exploratory factor analysis

There was no missing FTP-I data. The 10 items in the Indonesian Future Time Perspective Scale (FTP-I) version were reviewed using SPSS version 25 exploratory factor analysis. The best factor structure of the scale was achieved through an iterative method. The main component analysis (PCA) with varimax rotation was carried out resulting in a Keiser-Meyer-Olkin sample factorability adequacy measure (α = .87), with a Bartlett χ² test (36) = 1093.9 and a p <.001 confirming that an exploratory model is satisfactory. This EFA analysis produced two factors with their own values compared to Kaisers 1 criterion, which explained 50.59% of the total variability of the structure. There was no cross-loading of items across other factors. The observation confirmed this two-factor solution on the scree plot graph and Horn's parallel analysis. Horn's parallel analysis was performed in SPSS version 25 using the syntax function written by [19]. As presented in Table 1, this simulation test proved the first two eigenvalues from the actual data (3.74 and 1.31) were higher than those retrieved from the first three bootstrapping data, with eigenvalues of 1.24, 1.66, and 1.11.
Table 1. Item and factor loadings of the FTP-I (10 Items)

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<td>2</td>
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<td></td>
<td>Factor 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>ftp1 Many opportunities await me in the future</td>
<td>.806</td>
<td>-.076</td>
</tr>
<tr>
<td>2</td>
<td>ftp2 I expect that I will set many new goals in the future</td>
<td>.694</td>
<td>-.028</td>
</tr>
<tr>
<td>3</td>
<td>ftp3 My future is filled with possibilities</td>
<td>.670</td>
<td>-.021</td>
</tr>
<tr>
<td>4</td>
<td>ftp4 Most of my life lies ahead of me</td>
<td>.699</td>
<td>-.262</td>
</tr>
<tr>
<td>5</td>
<td>ftp5 My future seems infinite to me</td>
<td>.736</td>
<td>-.217</td>
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<tr>
<td>6</td>
<td>ftp6 I could do anything I want in the future</td>
<td>.713</td>
<td>-.076</td>
</tr>
<tr>
<td>7</td>
<td>ftp7 There is plenty of time left in my life to make new plans</td>
<td>.634</td>
<td>.077</td>
</tr>
<tr>
<td></td>
<td>Factor 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>ftp8 I have the sense time is running out.</td>
<td>.263</td>
<td>.706</td>
</tr>
<tr>
<td>9</td>
<td>ftp9 There are only limited possibilities in my future</td>
<td>.392</td>
<td>.682</td>
</tr>
<tr>
<td>10</td>
<td>ftp10 As I get older, I begin to experience time as limited</td>
<td>-.022</td>
<td>.465</td>
</tr>
<tr>
<td></td>
<td>Eigenvalues</td>
<td>3.74</td>
<td>1.31</td>
</tr>
</tbody>
</table>

3.2 Discussion

This current study develops and tests the psychometric properties of the Indonesian version of FTP (FTP-I). The result demonstrated that the FTP-I was a reliable and valid tool. The exploratory factor analysis findings indicated that the FTP-I has a two-factor structure consist of 10 items. This scale was different from the original FTP, which has a one-factor structure. This finding added evidence towards the multidimensional approach suggested by a more recent study of FTP. The FTP-I also has a proper internal consistency.

The primary intention of developing an Indonesian version of the scale was to provide further evidence for its validity and improve the current literature supporting its use. As suggested before, the findings stated two factors loading through measurement and no evidence of a one-factor model. The two eigenvalues from the actual data emphasized the limited and future factors are best to measure the FTP in the Indonesian context. The first factor was defined by items that describe opportunities for future outcomes, and the second factor defined the limited perspective of times. The two factors were remarkably distinct; seven items showed substantial loading on future outcomes factor, and three items were related to limited times perspective. FTP-I leads to focus on present-oriented outcomes with time-limited and open-ended FTP to more future outcomes. The FTP-I was developed based on the respective socio-cultural context. As such, this current scale would potentially capture the construct in a more precise way.

4 Conclusion

In summary, this study provides evidence supporting the psychometric properties of the FTP-I scale. The findings support the explanation of the multidimensional approach to be used in Indonesia. The FTP construct's theoretical relevance suggests that a valid multidimensional assessment tool would further explore research and policy development for the years ahead.
Future studies should consider further post hoc analysis using CFA might strengthen the validation of this tool. This model will explain whether the two factors fit the data rather than the one-factor model. The result would show both factors' independence or suggest the bipolar continuum suggested by Carstensen and Lang FTP scales.

Acknowledgments

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References


Age as the Moderating Variable in the Relationship Between Risk Taker Personality and Aberrant Driving Behavior of Drivers in Semarang City

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Abstract. Semarang is one of the cities with a high number of accident cases. The majority of traffic accidents can be attributed to driving behavior. Aberrant driving behavior can arise from the driver's personality and attitude. Accidents among adolescents were caused due to the nature of risk taking rather than the driving skills they possess. Therefore, this study aims to determine whether age can affect the relationship between risk-taking personality and aberrant driving behavior. This research used cross sectional method and applied the Risk-Taking Questionnaire and the Aberrant Driving Behavior Questionnaire. A number of 215 people, who lived in Semarang City, aged 17-45 years, had driving license(s), and had actively driving for the last one year, were participated in this study. Moderated Regression Analysis statistical test was run for young and adult participants to reveal the relationship differentiation between them. The study results show an increase in the coefficient of determination (R²) from 0.078 (df = 1) to 0.222 (df = 3), which indicates that age plays a significant role in influencing the strength of the relationship between risk-taker personality and deviant driving behavior.

Keywords: Risk taker personality, aberrant driving behavior, RT-18, DBQ, young driver, moderating variable

1 Introduction

1.1 Background

In this era, the need for transportation is increasing, especially in urban areas [1]. This is seen from the increasing number of motor vehicles that exist to date which also leads to an increase in traffic congestion. Increased traffic congestion and lack of awareness and experience in driving leads to high rates of traffic accidents. The Global Status Report on Road Safety mentioned that every year, around the world, traffic accident is still a serious problem. The report shows that every 24 seconds, one life is lost in a traffic accident. Every year there are more than 1.35 million deaths from traffic accidents [2].

Central Java Police Department data shows that Semarang is one of the cities that recorded a high number of accident cases. Figure 1 shows the number of accidents of several cities in Central Java in the age range of 17-35 years [3].
The increase in the number of traffic accidents is largely due to traffic violation behavior. According to [4] the form of aberrant driving behaviors is divided into three types, i.e. Errors, Lapses, and Violations. Errors reflect errors in driving involving failure in observing traffic signs and misjudgment of traffic conditions. Lapses refer to attention and memory disorders that are relatively harmless. Meanwhile, Violations refer to contraventions made intentionally by the driver.

Because behavior is a form of external response of an individual to his or her mental activity, and it has also been proven that various aberrant driving behaviors can arise from the internal factors of the rider such as the person's particular attitude and psychological traits. Lewin's research in [5] showed that the internal factors of motorists (individual factors), which significantly is close to 90%, were the predictors of the emergence of traffic accidents. Later the [6] research showed that people with high impulsiveness and weak empathy tend to make mistakes while driving. Impulsiveness is strongly related to risk-taker traits. Risk-taking behavior can be useful, necessary, and appropriate under certain conditions, but it can also be dangerous to do. The result of risk-taking behavior is subjective and partly depends on the individual's circumstances; many decisions in life require a balance between risk and anticipated rewards [7].

Risk-taking behavior has been considered a personality characteristic, a learnable behavior, and is a process of the self-development phase. As a characteristic or personality trait, risk-taking distinguishes each individual [8]. According to [9], risk taking behavior is how a person behaves in risky situations, where this situation contains a high degree of uncertainty and possible harm. Furthermore, [10] stated that behavior is the result of a series of processes: the identification of options and the identification of the consequences of each choice. It evaluates the possibilities of each consequence, checks everything that is common to each consequence, and combines all the information obtained to make a decision.

The majority of traffic accidents can be attributed to driver behavior. However, [11] showed that most young driver accidents are due to risk-taking rather than lack of skills. Therefore, the research supports that one of the factors influencing the nature of risk-taking is age. Research shows that teenagers are more likely to be risk-taker compared to adults [12] [13]. This is because teenagers tend to have unstable emotions.

According to [14] behavior is a response or reaction of a person to stimulus (external stimuli). According to National Traffic Law of Indonesia No. 22 of 2009, the driver is the person who

![Fig. 1. Accidents cases number in several cities in Central Java.](image-url)
driving the motor vehicle on the road who already has a driver's license [15]. According to [16], driving behavior is defined as the behavior of the owner or user of the vehicle in driving and caring for his vehicle. There are several factors that affect driving. Plant [17] stated that factors that influence traffic behavior include: (a) Environmental factors such as potholes and traffic accidents; and (b) Internal factors that are at risk of influencing the driver's behavior, such as behavioral factors, risk-taking, stress, disorders, fatigue, experience, age, alcohol, drugs, and disease.

Aberrant driving behavior will certainly be a threat to other road users. One important factor that causes high number of traffic-related injuries and deaths in teenagers is a lack of experience in driving, including experience in recognizing, assessing, and responding to existing hazards [18]. In this study, we will determine the influence of age on the relationship between risk-taking personality and aberrant driving behavior.

1.2 Problem statement

Figure 2 shows conceptual model explaining the interconnectedness between variables used in this study.

![Conceptual model of this study](image)

Fig. 2. Conceptual model of this study.

Problems are identified using preliminary studies of previous research, which finds that there is a suspicion that teenagers tend to drive unsafely due to susceptible in controlling emotions and the lack of experience. Risk-taking behaviors that teenagers tend to do also influences unsafe driving behavior. Therefore, the identification of the problem in this study is to understand the effect of age on the relationship between risk-taking and driving behavior.
1.3 Boundaries

Some boundaries applied in this research were as follows:

- Participants were motorcyclists who already have a driver's license either driver's license A or driver's license C.
- Participants were 17-25 years old.
- Research area is limited to city of Semarang.
- Participants were limited to motorcycle and car drivers.
- Risk-taker personality tendencies were measured by the RT-18 Questionnaire, while driving behavior was measured by DBQ which measured the error rate, deviations and violations committed by drivers.

2 Methods

2.1 Risk-taking questionnaire 18 items (RT-18)

In this study, risk taker was quantified by Risk-Taking Questionnaire-18 from [19]. This questionnaire consisted of 18 question items that adopt several sub scales of the previous risk-taking questionnaire, while the sub-scale was impulsiveness and venturesomeness, novelty seeking, and impulsive sensation seeking. These sub-scales were selected from different types of scales and questionnaires, as they reflected the properties associated with risk-taking. This questionnaire was measured by 6 points of ordinal scale starting from 1 (strongly disagree) to 6 (strongly agree).

2.2 Driving behavior questionnaire

DBQ Questionnaire of [20] was used in this study. This questionnaire was useful for measuring aberrant driving behavior in the form of errors, lapses or violations. This questionnaire consisted of 40 statements that include 3 variables namely Error (E), Lapses (L), and Violation (V). This questionnaire was measured by 6 points of ordinal scale starting from 1 (never) to 6 (always).

2.3 Data processing

To find out if age can affect the strength of the relationship between risk-taker personality and aberrant driving behavior, Moderation Regression Analysis was used. A particular implementation of linear multiple regression was the Moderated Regression Analysis (MRA) or interaction evaluation, where the regression equation includes an aspect of interaction (multiplication of two or more independent variables) with the following equation formula [21]:

\[ Y = a + b_1X_1 + b_2X_2 + b_3X_1X_2 + e \]  

(1)

Variable multiplication between \( X_1 \) and \( X_2 \) was called a moderate variable because it described the effect of moderating \( X_2 \) variables on the relationship of \( X_1 \) and \( Y \). While variables \( X_1 \) and \( X_2 \) are a direct influence of variables \( X_1 \) and \( X_2 \) on \( Y \). A moderating variable was an
independent variable that served to strengthen or weaken the relationship between an independent variable to a dependent variable [21].

3 Results and Discussion

3.1 Demographic data overview

The recapitulation of the demographic data of participants who filled out this research questionnaire is shown in Table 1.

Table 1. Demographic data recapitulation of participants

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Frequency (Person)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17-25</td>
<td>112</td>
<td>52%</td>
</tr>
<tr>
<td>26-35</td>
<td>66</td>
<td>31%</td>
</tr>
<tr>
<td>36-45</td>
<td>37</td>
<td>17%</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>111</td>
<td>52%</td>
</tr>
<tr>
<td>Female</td>
<td>104</td>
<td>48%</td>
</tr>
</tbody>
</table>

Some demographic characteristics of drivers could affect driving safety behavior. Some included age, gender, and driving experience [22]. Based on Table 1, it could be implied that the majority of participants were teen drivers with a range of ages 17-25 years. The data supported participants’ focus on this study, which is teenagers. By gender, male respondents were 111 while women were 104.

3.2 Age influence

Output comparison of regression test results before and after added variable moderating age is presented in Table 2.

Table 2. Regression test result comparison output

<table>
<thead>
<tr>
<th>Output</th>
<th>Before adding “age” as moderate variable</th>
<th>After adding “age” as moderate variable</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>R</td>
<td>0.280</td>
<td>0.472</td>
<td>An increase in the value of the determination coefficient occurs</td>
</tr>
<tr>
<td>R square</td>
<td>0.078</td>
<td>0.222</td>
<td></td>
</tr>
<tr>
<td>Sig.</td>
<td>0.000</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>df</td>
<td>1</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

So, here was the linear regression equation before a moderating variable was added:

\[ Y = a + b_1X_1 \]  

\[ DBQ = 1.525 + 0.197 \, RT \]  

and after adding moderate variables, the equation became as follow:

\[ Y = a + b_1X_1 + b_2Z + b_3X_1Z \]
Based on Table 2, it could be inferred from linear regression test results in significance less than 0.05 both before and after added moderating variables which means significant regression test results. The R value was a symbol of the correlation coefficient, from Table 2 it showed that the value of R before adding a moderating variable of 0.280 which indicated the relationship of the two research variables was in the low or weak category and after added a moderating variable of 0.472 indicating the relationship of the two research variables existed in the moderate category, then the value of the determining coefficient of R Square which indicated how well the regression model was formed by the interaction of free variables and bound variables. The R Square value obtained from the regression test results before the moderating variable was added by 7.8% which could be interpreted that the risk taker personality variable \((X_1)\) had a 7.8% contribution influence to the driving behavior variable \((Y)\) and after being added a moderating variable of 22.2% which meant an increase in the influence of contributions to 22.2% between risk taker personality variables \((X_1)\) on driving behavior \((Y)\) and the rest was influenced by other factors. With the increase in the value of R Square in the first regression by 0.078 to 0.222 in the second regression, it could be concluded that the age \((Z)\) influenced the personality relationship of risk taker \((X_1)\) to driving behavior \((Y)\). The greater the value of R square, the stronger the relationship between the two variables. Then judging by the regression equation, there was a regression coefficient value of minus \((-\)) so it could be said that age \((Z)\) negatively affects the relationship between personality risk taker \((X_1)\) and driving behavior \((Y)\).

Age variables were moderator between personality level and driving behavior. Because it directly influenced driving behavior, and so did the interaction between those variables, therefore age variables were quasi-moderators. Quasi moderator was a variable that moderates the relationship between an independent variable and a dependent variable in which a pseudo moderation variable interacts with an independent variable while being an independent variable. It meant that the older the person, the stronger the personality effect on driving behavior.

The data processing showed that age influenced the strength of the relationship between personality risk taker to aberrant driving behavior. The older the age was, the lower the influence of taker risk behavior on aberrant driving behavior. These results were in line with [23] findings, which found that age negatively affects traffic violations. Older drivers were more aware and cautious of the value of safety, particularly in situations where they no longer consider themselves as young, so sight and hearing and attention started to decline as the physical state was no longer productive, making them more attentive in driving. The results of [24] found that older people displayed improved driving behavior (driving slowly and comfortably and retaining the idea of better slow origin survive) while his physical strength and mental well-being started to decline as a person grew older (e.g. vision, hearing and emotional) so that he became more vigilant in driving.

The findings in this study explained that age differences can provide personality differences, as well as influence driving behavior. This meant that the same personality can have implications on driving behavior at different age levels towards different motorists. At a young age, riders who are patient, calm, friendly, tolerant, and happy to avoid conflict could act carelessly when on the road and were happy to commit traffic violations until an accident, which is also potentially involved in legal problems, as well as financial losses. Conversely, older motorists were more likely to commit speed and traffic offences, so the likelihood of an accident, and legal problems with traffic accidents and the effect of material harm will be smaller.
3.3 Solution recommendations

Based on the results of the discussion, age can affect the relationship between personality risk taker and aberrant driving behavior, the results also showed that age negatively affects the relationship. This meant that the older the age is, the lower the risk of aberrant driving behavior. Therefore, it could be said that in teenagers have the highest likelihood of having a personality risk taker and aberrant driving behavior. The solution that can be provided on this issue is the provision of education and training through educational institutions as a form of new safety plan policy to improve the driving safety in Indonesia.

The teenager's behavior can be due to a lack of experience and knowledge about driving and in dealing with risks arising from their personality or behavior. Knowledge of driving safety is gained by a person through both personal and other experiences and literature. Drivers with minimal experience and lack of safe driving skills are at high risk for accidents and high risk for accidents and injuries [25]. Knowledge of the high risk of an accident in a motorcyclist who is in teen age can make the driver rethink when wanting to ride a motorcycle [26]. This understanding not only applies to motorists, but also applies to parents of motorists, especially to educate their children to always drive safely [27].

Alternative intervention strategies which can be implemented are to let the teen driver know that they need to change their behavior and give them the opportunity to understand how to change it. In the research conducted by [28] the group which implement this strategy has proven to decrease the number of accidents up to 50%, compared to the one in the control activities group. The implementation of this strategy has benefitted that the decision is made personally and individually. The disadvantage will be if the implementation is done unsupervised, then there will be unwanted consequences regarding the aberrant driving behavior. In driving, this solution may applicable when driver is accompanied by passenger(s). However, one must make sure that actively speaking passenger maybe lead into higher risk in traffic accident due to decreasing driver attention [29]. Considering the personality, risk-accepting passenger would higher the probability of risky driving [30].

4 Conclusion

Based on the results of the analysis, it could be concluded that there was an increase in the coefficient of determination in the linear regression test between personality risk taker to aberrant driving behavior from 0.078 (df = 1) to 0.222 (df = 3). It is indicating that age played a significant role in influencing the strength of the relationship between risk taker personality and deviant driving behavior. The older the driver, the lower the influence of risk taker behavior on deviant driving behavior which resulted in positive implications on driving behavior and will ultimately lead to improved driver safety.

The solution recommended is to implement a new safety plan policy according to the age of the driver to improve the safety in Indonesia in the form of providing knowledge and education on how to drive safely, as there should be restrictions for teenage drivers to control risky personalities that impact their driver's safety awareness.
Acknowledgements

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References


Reconstruction of Death Penalty Sanctions for Corruption Perpetrators in Indonesian Law

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Abstract. Corruption has been through an uncontrollable development, even in criminological studies, perpetrators of corruption have prepared legal instruments to deceive the prosecution of the public prosecutor because corruption seems to be a legitimate and legal transaction. In committing corruption, often it is not done by an individual, even in groups, in a congregation with many relatives, especially in institutions, agencies such as the legislature. Seeing it is done together or in one group as if at first the act was against the law, then it becomes the act that is not illegal was done because many people did it. This is what is interesting to study, in order the perpetrators are deterred and effective in preventing criminal acts of corruption, which in Law Number 31 of 1999 concerning Eradication of Corruption Article 2 Paragraph (2) In the case of criminal acts of corruption as referred to in paragraph (1) carried out in certain circumstances, the death penalty may be imposed. What is meant by “certain circumstances” in this provision is meant as a deterrent to the perpetrator of the criminal act of corruption if the criminal act is committed when the country is in a state of danger under the applicable law when a natural disaster that affects state as a whole occurs, as a repetition of the criminal act of corruption, or when the country is in a state of economic and monetary crisis. In this case, the researcher is interested in taking the formulation of the problem of proper reconstruction for Article 2 paragraph (2) of Law Number 31 of 1999 concerning Eradication of Corruption to be effective. The legal methodology used is the juridical normative method. The approach used is the statute approach and the comparative approach. Types and sources of legal materials used are primary legal materials, in the form of legislation and secondary legal materials in the form of libraries in the field of law and scientific articles from both newspapers and the internet.

Keywords: Corruption, death penalty sanctions, indonesian law

1 Introduction

When talking about corruption, the people from the lower level to the top of society have recognized and it becomes a hot yet exciting conversation because it is reported on television, which means that people in Indonesia can easily access information from television media. Because it has become a public discussion by the society so that the public is "not surprised anymore" if there are corruption cases that are revealed and reported on television. Corruption is also still a hot issue and has become a campaign material and has even become a commodity in order to gain populist legitimacy with promises to eradicate corruption for Presidential Candidates. In other words, the corruption theme is very down to earth. However,
on the other hand, it raises new concerns, because the term corruption is so popular, it has the potential to shift the meaning of corruption itself. Especially amid the reality of the incessant eradication of corruption which is deemed incapable of reducing the level of corruption itself. Such conditions may place that corruption, which should be classified as a serious crime and must be condemned, can shift into something that seems normal. If this happens, it will be increasingly difficult to eradicate corruption, because society can be led to permissiveness and apathy in responding to the phenomenon of corruption. [1]

From here, several politicians took advantage of the momentum and made promises regarding the eradication of corruption. Providing promises to the people, that it will make a clean government free from corruption and carry out law enforcement and impose penalties for corruptors. Even though the presence of politicians is expected to be able to solve various problems they face, including the problem of corruption that has taken state money, which results in the people being disadvantaged in the hope that the perpetrators of corruption will receive a severe punishment [7].

The increasing frequency of the death penalty in Indonesia is more dominated by the distribution and trafficking of illegal drugs such types drugs (narcotics, psychotropic substances, and addictive substances) compared to the increase in violent crime. In an impartial record, for the period 1998-2008, narcotics and psychotropic cases were cases with quite a several death sentences, namely 68 cases, followed by 32 cases of murder offenses. [2]

The difficulty in overcoming corruption can be seen from the many acquittals of the accused in corruption cases or the minimum amount of punishment the defendant has borne. This is very detrimental to the state and hinders nation-building. If this happens continuously for a long time, it can negate the sense of justice and a sense of trust in the laws and regulations by society. The problem of corruption is a national problem that is not simple. Several factors make this happen, at least because the actors who commit corruption crimes are people who have a lot of money and extensive networks. So that when they get caught up in the law, they will use their money and power to avoid or buy the law [3]. In this case, the author takes the formulation of the problem how is the proper reconstruction of Article 2 paragraph (2) of Law Number 31 of 1999 in conjunction with Law Number 20 of 2001 concerning the Eradication of Corruption to be effective?

2 Methods

The legal methodology used is normative juridical. The approach method used is the statue approach and the comparative approach. Types and sources of legal materials used are primary legal materials, which is legislation, and secondary legal materials libraries in the field of law and scientific articles from both newspapers and the internet. Technique collection of legal materials used is literature study and access Internet. The legal material analysis technique is using the content method analysis and the conceptual definitions used are the Corruption Crime, the Death Penalty, and the attempt to reconstruct Article 2 paragraph (2) of Law Number 31 Year 1999 concerning Corruption Eradication.
3 Results and Discussion

To tackle the crime of corruption as an extraordinary crime, legislators formulate several important things that are considered to be used as tools to ensnare and bring a deterrent effect to the perpetrator, namely the principle of reversal of proof and severe sanctions, including capital punishment. The policy for the formulation of articles relating to these two matters is certainly based on thoughts and is motivated by the desire to eradicate the criminal act of corruption. However, this formulation policy is not followed by an application policy. As the principle of reverse proof is reluctant to be applied in trials of corruption crimes, judges of corruption are also reluctant to impose the death penalty against the perpetrators of criminal acts, even though the state has lost billions, even trillions of rupiah, and many members of the society have lost the opportunity to enjoy the welfare resulting from the crime.

Article 2 paragraph (1) and (2) of the Corruption Eradication Law which regulates that a perpetrator can be convicted of death has never been applied because certain conditions are not fulfilled by corruptors. This indicates that, apart from repetition of criminal acts, the imposition of capital punishment against corruptors can only be done if the state is in an "extraordinary" situation, namely the state is in a state of danger under the applicable law, such as a national natural disaster, or when the country is in a state of economic and monetary crisis. An unusual condition, the parameters of which require a long debate. [4]

Can be sentenced to death to any person who illegally commits an act of enriching himself or another person or a corporation that can harm the state finances or the state economy as stipulated in Article 2 paragraph (2) of Law Number 31 Year 1999 which is carried out in "certain circumstances "is the punishment for the perpetrators of corruption.

Although legally, the application of the death penalty has been regulated since 1999, in practice, until now, no corruptor has been sentenced to death. Indonesia should be able to reflect on China in enforcing the law against corruption, China there is no mercy for corruptors, even Cheng Ke Jie, deputy chairman of the Chinese Parliament was sentenced to death, Ju Rongji, the Prime Minister of China a few years ago said "prepare thousands of coffins for corruptors, but Also prepare a coffin for me, if I am also corrupt, I am ready to be sentenced to death." Ju Rongji's words should inspire Indonesian leaders to be firm in eradicating corruption indiscriminately. [5]

Article 2 paragraph (1) and (2) of the Corruption Eradication Law which regulates that a perpetrator can be convicted of death has never been applied because certain conditions are not fulfilled by corruptors. This indicates that, apart from repetition of criminal acts, the imposition of capital punishment against corruptors can only be done if the state is in an "extraordinary" situation, namely the state is in a state of danger under the applicable law, such as a national natural disaster, or when the country is in a state of economic and monetary crisis. An unusual condition, the parameters of which require a long debate. Based on this reality, the question that then arises is, is it still relevant to formulate the death penalty in future corruption crimes? This is based on the discourse of the need to revise the Corruption Eradication Law because it still has weaknesses, among others, no provision regulates sexual gratification, and reversed proof provisions that law enforcers rarely use. Besides, capital punishment is still maintained in the Draft Criminal Code with certain circumstances and is always threatened with alternatives [6]

From the explanation above, the criminal law instrument must be able to be a means to prevent public morality, so that the people are not led by people who have been given public trust by they yet on the contrary have betrayed them. Thus, law enforcement officers are not only guided by the specificities of the regulation of the law on corruption, the appropriateness of the elements of the article but see the law from the technical side of the law and at the same
time the legal objectives to be achieved. If this is the case, the objectives of justice, legal certainty, and legal benefits will always be reflected in the entire law enforcement process starting from the stage of the investigation, prosecution to implementation of court decisions. The law does require judges to explore and follow the values that live in society. And from the perspective of the community, to punish the perpetrators of corruption as much as possible with relatively heavy penalties, because if the perpetrators of corruption are sentenced to light crimes, even acquitted from all lawsuits, many people consider the ruling to be unfair.

4 Conclusion

In conclusion, Article 2 paragraph (1) and (2) of the Corruption Eradication Law which regulates that a perpetrator can be convicted of death, in fact has never been applied; thus the imposition of capital punishment against corruptors can only be done if the state is in an "extraordinary" situation, namely the state is in a state of danger under the applicable law, such as a national natural disaster, or when the country is in a state of economic and monetary crisis. An unusual condition, the parameters of which require a long debate. While the revision of the Corruption Eradication Law is because it still has weaknesses, among others, no provision regulates sexual gratification and reversed proof provisions that are rarely used by law enforcers. Besides, capital punishment is still maintained in the Draft Criminal Code with a special nature and is always threatened with alternatives. Thus, the criminal law instrument must be able to be a means to prevent public morality, so that the people are not led by people who have been given public trust by they on the contrary have betrayed them. The law does require judges to explore and follow the values that live in society. And from the perspective of the community, to punish the perpetrators of corruption as much as possible with relatively heavy penalties in order to give an effective deterrent effect.

References

Influences of Quality of Work Life (QWL), Work Discipline and Work Motivation on Employee Performance at the Department of Population and Civil Registration of Sumenep Regency

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Abstract. Creating competitive advantage can improve quality of human resources; several advantages such as aspects of human resources are closely related to improve the quality of work life and several important aspects such as discipline of work and work motivation, as well as goals to set goals. This study focuses on examining the impacts of work quality, work discipline and motivation of work on employee performance at the Sumenep Regency Department of Population and Civil Registry. A method used in this study is a quantitative approach, due to limitations, for employees in the department with a population of 80. A saturated sample of 80 participants was applied to a sample determination technique used for the office population. Multiple linear regression using SPSS software was used in a data analysis technique after data quality testing and assumption tests. The results of this study concluded that quality of working life has a significant impact on the performance of workers, variable discipline in the workforce also significant impacts on the performance of employees, and motivation for the work can also make a positive contribution to the population of the Department of Population and Civil Registration of Sumenep Regency.

Keywords: Quality of work life, work discipline, work motivation, employee performance

1 Introduction

The main problems with the management of human resources are how to build a production culture within a company to improve organizational performance [1]. According to Simanjuntak, in the performance aspect, levels of achievement for implementation of certain tasks Improving working life quality is not easy because there are so many challenges in its process; moreover, if not supported by various parties, this effort can fail [2]. Motivation and support from top management are needed in determining employee performance. Effective disciplinary action will encourage individuals to improve performance that benefits for the individuals and also the organization.

The main problem in this research is to complement a previous research, specifically the analysis of community satisfaction at this department. The previous study was still limited to general services to the community, so it is necessary for this study to conduct more in-depth research. This study focuses on how human resources in the office work optimally as it needs
for development in terms of quality of work life, work discipline, and motivation of these employees in serving communities in Sumenep Regency. Another main problem is related to the implementation of Performance at the Sumenep Regency Department of Population and Civil Registration; there are still limited relationships to the implementation of work as there is no a positive reciprocal relationship between leaders and employees. Therefore, this needs for improvement in a better direction such as discipline, motivation or quality. For a better work life, motivation is a stage in achieving goals of effective performance by providing appropriate rewards or compensation, while in the quality of work life it is necessary to have equal participation from all human resources. Work motivation that affects performance and effective discipline will encourage individuals to improve performance that benefits for both the individual or the organization. Based on the discussions above, the variables of quality of work life, work discipline and work motivation are main research points in organizations engaged in the service sector. This study will focus on the performance of employees in the Sumenep Regency Department of Civil Registration. This study looks for how relationships between quality work of life, work discipline, and work motivation at the department.

The purpose of this study is how to provide solutions to problems that exist in an organization, especially in organizations that are engaged in public service with the research process of several predetermined variables. This research method utilizes quantitative methods with multiple linear regression methods. Partial tests and simultaneous tests are used to determine the final study outcome.

2 Methods

Indicators used in this study referred to Walton’s quality work of life that consists of growth and development, participation, innovative reward systems, and work environment [3]. Meanwhile, according to Sudarmato, work discipline variables consist of punctuality, good use of office equipment, high responsibility, and obedience to office rules [4]. Next, work motivation consists of several indicators elaborated by Abraham Maslow into five hierarchies of needs: physiological needs, security needs, social needs, self-esteem and updating [5]. Meanwhile, according to Robbins, performance consists of several dimensions such as quality, quantity, timeliness, effectiveness, independence, and work commitment [6]. From these indicators, the authors developed some statements included in questionnaires to be answered by all research respondents. Next, A scale of data measurement in this study was an ordinal scale using five scales on each variable.

The population in this study were employees who work at this department. Its sampling technique used saturated samples, where all members of the population were sampled. The samples in this study were 80 employees. An analysis technique used in the first stage was conducted by testing the quality of the data by testing their validity and reliability, and then the data was also tested by five assumption tests. A multiple linear regression analysis is performed in order to examine the relationships between variables and to model them. Multiple regression is often used to solve regression analysis problems resulted from the relationships of two or more independent variables, and a related framework of this research can be seen in Figure 1 below.
3 Results and Discussion

3.1 Results of the analysis

3.1.1 Multiple linear regression analysis

The following Table 1 shows how to determine regression equations of this study according to the multiple linear regression analysis test.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficient</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>Constant</td>
<td>4.887</td>
<td>2.962</td>
</tr>
<tr>
<td>X1</td>
<td>.563</td>
<td>.112</td>
</tr>
<tr>
<td>X2</td>
<td>.443</td>
<td>.096</td>
</tr>
<tr>
<td>X3</td>
<td>.210</td>
<td>.091</td>
</tr>
</tbody>
</table>

From table 1 above, it is found that the regression equation is \( Y = 4.887 + 0.563 + 0.443 + 0.210 \); with a conclusion that if the three variables of this study show a constant value, the performance variable has a value of 4.887, with values of each regression coefficient variable, namely 0.563, 0.443 and 0.210.

3.1.2 T test (Test individually)

Individual test or t test is presented in the table below with reference to the t test value and the significance value for each of the following variables.
Table 2. t Test

<table>
<thead>
<tr>
<th>Variable</th>
<th>Test t</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1</td>
<td>5.016</td>
<td>.000</td>
</tr>
<tr>
<td>X2</td>
<td>4.627</td>
<td>.000</td>
</tr>
<tr>
<td>X3</td>
<td>2.312</td>
<td>.023</td>
</tr>
</tbody>
</table>

Based on Table 2, it shows that the value of the quality of work, work discipline and work motivation is less than 0.05. All these variables have a significant impact on the performance of employees.

3.1.3 The calculated F test (simultaneous test)

The joint test or the F test is presented in the table below with reference to the F test value and the significance value of each of these variables.

Table 3. Simultaneous Test (F)

<table>
<thead>
<tr>
<th>Variable</th>
<th>F Test</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1</td>
<td>23,273</td>
<td>.000</td>
</tr>
<tr>
<td>X2</td>
<td>23,273</td>
<td>.000</td>
</tr>
<tr>
<td>X3</td>
<td>23,273</td>
<td>.000</td>
</tr>
</tbody>
</table>

Table 3 shows that the significance value is still below 0.05 Therefore it can be concluded that all variables have an important performance effect.

3.1.4 Test of the coefficient of determination

Table 4 shows how all the independent variables contribute to the dependent variable.

Table 4. Test of the coefficient of determination

<table>
<thead>
<tr>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.692</td>
<td>0.479</td>
<td>0.458</td>
</tr>
</tbody>
</table>

Based on Table 4, the influences of all variables have an effect on performance by 47.9%, while the remaining, 52.1%, is influenced by other variables that cannot be researched.

3.2 Discussion

3.2.1 Effect of quality of work life on employee performance

The quality of work variable has a significant impact on the performance of employees. The quality of the working life of the employee of the service is lower and will reduce their performance. The performance of the employees is determined by how they improve the quality of life at this department.

The results above are also in accordance with Wayne’s study stating that the quality of working life is perceptions of employees that they want to feel safe, feel satisfied, and got opportunity to be able to grow and develop like humans [3]. The results of this study also agree
to several previous research results, including Anugrahini’s study concluding that the quality of work life has a positive effect on employees of the Sampang Regency Industry and Trade Service [7]. Astrianditya's other study indicated that quality of work life has a positive impact on employees' performance, with several supporting factors, such as self-recognition, good working conditions and mutual tolerance, leaders' attitudes, which can promote, and manage, and suitable work placements so that quality of work affects employee performance [8].

Based on the discussions above, it can be a reference that the quality of work life at this department has a very good impact on continuity of working life and for improving performance in the office; This result is also in accordance with several things that occur in the field that several indicators such as development, participation, reward systems and work environment synergize with each other in the office with some evidence such as active participation of employees in carrying out activities every day with consistency of attendance and a conducive working environment, such as mutual intimacy between employees so that with this atmosphere a good work environment can arise and this variable can improve employee performance.

3.2.2 The effect of work discipline on employee performance

This variable shows that they influence employee performance positively. It can therefore be concluded that the work discipline which has become a culture or routine for these employees could improve individual workforce performance. Therefore, if discipline in these employees is declining, it will have an important impact on the performance of the department's employees.

This study found that levels of participation indicated by attendance at this department are in accordance with existing procedures at the office. The attendance factor is a basic reference for increasing employee discipline as attendance and adherence to work standards will have a very high impact on the performance of employees. This study is also supported by a previous theory since Ardana said that the discipline of work is a respect, observance, obedience, and compliance, both in writing and in writing, with the applicable regulations [9].

Meanwhile, another previous study by Rhyme and Bambang also strengthens the results of this study. The Rhyme and Bambang’ study concluded that work discipline of employees is in a good category. Employees are aware that it is important to comply with existing company rules so that the company's work discipline has an important effect on its employee performance [10]. Suparno's study also endorses the positive and significant effect of work discipline on the performance of education employees in Sragen Regency. [11]

3.2.3 The effect of work motivation on performance

The results of several data tests to determine the effect of motivation on the performance of employees in the Department of Population and Civil Register of Sumenep Regency found that motivation for employee work influence the performance of employees. It can be concluded that the work motivation possessed by employees at the service can increase the performance of individual employees in the service; consequently, if there is work motivation on these employees, it will affect the decline of the employee performance at the department.
4 Conclusion

The quality of work life can make a significant contribution to the performance of employees. Many important indicators such as the development, participation and supporting work atmosphere that has become a departmental routine and culture can be seen. These results show that the higher the quality of the work life of employees, the higher the performance of employees in the department. Employee discipline also helps employees in the department as these variables have a positive effect on employee achievement with certain criteria such as attendance, adherence to work standards, awareness, and the motivation for employees to work contributes positively to departmental performance because it shows that motivation for work has an important impact on employee performance.

References

The Intention to Conduct Internal Whistleblowing During Covid-19: Finding the Influencing Factors

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Abstract. This research aims to analyze and examine the effect of each of the variables of ethical relativism orientation, moral intensity, organizational commitment, and professional identity on the intention to carry out internal whistleblowing with legal protection as a moderating variable during the Covid-19 pandemic. The population used in this research were employees of the Government of Sumenep Regency. The samples were determined using purposive sampling method. Data collection used a questionnaire distributed to 100 respondents, but only 75 questionnaires were returned. Data validity test and reliability test were used to test the quality of the data, then the classical assumption test and statistical t test using the SPSS 20 program were used in this research. The results show that the ethical orientation of relativism, moral intensity, organizational commitment, and professional identity are all factors that influence the intention to conduct internal whistleblowing. However, the variable of legal protection can’t moderate these four variables to increase employee intention to conduct internal whistleblowing. The results of this research are expected to be used as new reference material and considerations, especially for the Sumenep Regency Government in the future, regarding several factors that they can maximize in order to encourage each member of the organization to always be motivated to take whistleblowing action.

Keywords: Internal whistleblowing intention, relativism ethical orientation, moral intensity, organizational commitment, professional identity, legal protection

1 Introduction

Whistleblowing is an attempt to reveal the existence of fraudulent practices, illegal practices, or other forms of fraudulent practices committed by individuals or groups that are part of an organization or agency (active members or former members in this case staff/employees) that occur where the person is employed or has worked. Disclosure is made to another person or organization with the hope of taking action against the perpetrator of the fraud [1]. According to Husniati, et al [2] over the last few decades, issues regarding whistleblowing have become a concern by several circles in the global world, because the existence of whistleblowing is considered a means of disclosing fraud cases.

Kreshastuti and Prastiwi [3] add that one way to reveal accounting violations so that it can restore public confidence is to do whistleblowing. Whistleblowing is reporting made by members of the organization (active or non-active) regarding violations, illegal or immoral acts to parties inside or outside the organization. Regulators are trying to restore public confidence in the accounting profession. In Indonesia, the Whistleblowing System (WBS) Reporting
System Guidelines (WBS) were issued by the National Committee on Governance (KNKG) on November 10, 2008. The regulation requires accountants to report management fraud to the appropriate policy makers. So that, either directly or indirectly, a whistleblower in an organization is actually needed by an agency to help reveal the existence of fraud in an agency.

Wahyuni and Nova [4] argue that someone who commits whistleblowing can occur from internal or even external parties from an organization. The difference between the two is to whom the fraud case is reported. Internal whistleblowing is when an employee becomes aware of fraud then reports it to their supervisor. Meanwhile, external whistleblowing occurs when an employee who is aware of fraud in the agency then reports it to parties outside the agency or organization because they think that the fraud has harmed the community. The practice of whistleblowing is very important, but in fact the intention to carry out this practice is still rare in Indonesia, because most of them prefer to remain silent rather than have to report fraud in the hope that they feel more secure in their position if they do not practice this practice. According to Husniati, et al [2] there are four factors that encourage whistleblowing in organizations, namely ethical relativism, moral intensity, organizational commitment, and professional identity. The act of whistleblowing can also be related to prosocial organizational behavior theory.

Whistleblowing is a form of prosocial action by organizational members to convey directions, procedures, or policies which according to them may be unethical, illegal or catastrophic for the long-term goals of the organization to individuals or other bodies in a position to take corrective action. Prosocial organizational behavior theory emphasizes that the whistleblowing action of an employee shows a form of employee commitment to protect the organization from threats of unethical or illegal things.

Several previous studies related to the four factors that encourage whistleblowing, there are still differences in results, such as in the research of Lestari and Yaya [1] with the research of Husniati et., Al [2]. In addition, this research is very important to do because the practice of whistleblower is very important to be carried out and cultivated to disclose acts of fraud that have occurred so that this will also help the Sumenep Regency Government in maintaining the achievement of the Unqualified opinion financial statements obtained in recent years. With the Covid-19 pandemic as it is now, all activities are completely limited, so this also encourages researchers to raise this research during the pandemic to find out the intention of whistleblowing with limited activities.

The problem formulations in this study are: (1) Is the ethical orientation of relativism a factor that influences the intention to conduct internal whistleblowing? (2) Is moral intensity a factor influencing the intention to conduct internal whistleblowing? (3) Is organizational commitment a factor affecting the intention to conduct internal whistleblowing? (4) Is professional identity a factor affecting the intention to conduct internal whistleblowing? (5) Is legal protection a moderating variable for each of the variables of ethical relativism orientation, moral intensity, organizational commitment, and professional identity towards the intention to conduct internal whistleblowing?
2 Methods

2.1 Population and sample

The population in this study were all staff / employees at the Regional Work Unit of Sumenep Regency. The sampling technique uses purposive sampling method, the characteristics of the sampling are as follows: 1. All staff / employees working in the Regional Work Unit of Sumenep Regency 2. The staff / employees who have Group 3 and below (who do not occupy certain positions) 3. Minimum work period of 5 years in the same Regional Work Unit. The type of data used in this study is primary data. Primary data was conducted by survey method, namely primary data collection method using written questions. The survey method used is by distributing questionnaires to respondents in the form of written questions.

2.2 Data collection technique

Data were collected from the results of written answers from respondents. Respondents will be given columns to choose conditions that describe themselves. Respondents simply give a check mark (□) or cross (X) with 5 answer choices, namely STS which means that the respondent strongly disagrees with the question given, TS which means that the respondent does not agree with the question given, N which means that the respondent is neutral towards the question given, the next choice is S which indicates that the respondent agrees to the question given, then the SS choice which indicates that the respondent strongly agrees with the question given. In this study the population used was all staff / employees at the Regional Government Work Unit of the Sumenep Regency Government. The distribution of questionnaires in this study was carried out by giving directly to employees who work in the Regional Government Work Unit of the Sumenep Regency Government. The questionnaire was distributed directly to all Regional Work Units of the Sumenep Regency Government, totaling 25 agencies. Of the 100 questionnaires distributed, 75 returned questionnaires (75%), so that this number is a questionnaire that can be processed by researchers.

2.3 Data analysis

The data analysis used was quantitative data analysis so that descriptive statistical tests, data quality tests, and classic assumption tests were used in this study. Then to test the effect of each variable, the t test is used and the moderation test is used to test whether the moderating variable can moderate each of the independent variables on the dependent variable used.

3 Results and Discussion

3.1 Result

Before testing the effect of each of the factors that affect the intention to conduct internal whistleblowing, the data in this study have been tested for validity, reliability and classical assumption.
3.1.1 Determination coefficient test results (R2)

As for the test results of the coefficient of determination can be presented in the following Table 1.

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.623*</td>
<td>0.388</td>
<td>0.344</td>
<td>1.491</td>
</tr>
</tbody>
</table>

Based on the table, the Adjusted R Square value is 0.344, which means that 34.4% of the intention to do internal whistleblowing can be explained by the variables of ethical relativism orientation, moral intensity, organizational commitment, professional identity and legal protection, while the remaining 65.6% is explained by variables that were not used in this study.

3.1.2. T test results

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>-1.092</td>
<td>3.859</td>
<td>-2.83</td>
<td>0.778</td>
</tr>
<tr>
<td>The ethical orientation of relativism</td>
<td>0.269</td>
<td>0.101</td>
<td>0.257</td>
<td>2.670</td>
</tr>
<tr>
<td>1 Moral intensity</td>
<td>0.397</td>
<td>0.087</td>
<td>0.459</td>
<td>4.587</td>
</tr>
<tr>
<td>Organizational commitment</td>
<td>0.193</td>
<td>0.087</td>
<td>0.225</td>
<td>2.222</td>
</tr>
<tr>
<td>Professional identity</td>
<td>0.292</td>
<td>0.086</td>
<td>0.320</td>
<td>3.396</td>
</tr>
</tbody>
</table>

These results can be interpreted as follows:
- The regression coefficient of the Ethical Relativism Orientation variable shows the number 0.269 with a positive coefficient direction, this indicates that the higher the Relativism Ethical Orientation value of a staff/employee will increase the intention to do internal whistleblowing with a significance value of 0.009 <0.05.
- The regression coefficient of the Moral Intensity variable shows the number 0.397 with a positive coefficient direction, this indicates that the higher the moral intensity of the staff/employees, the more the desire or intention to do internal whistleblowing will increase with a significance value of 0.000 <0.05.
- The regression coefficient of the Organizational Commitment variable shows the number 0.193 in a positive direction, this indicates that the higher value of staff/employee organizational commitment will increase the desire or intention to perform internal whistleblowing with a significance value of 0.029 <0.05.
- The last regression coefficient, variable Professional Identity shows the number 0.292 in a positive direction, this indicates that the higher the value of the professional identity of staff/employees, the more they will increase the desire or intention to perform internal whistleblowing with a significance value of 0.001 <0.05.
3.1.3 Moderation test results

The results of the Moderation Test in the Table 2 indicate that the significance value of each of the moderated variables has a value > 0.05. this shows that legal protection is not a variable that can moderate the Ethical Orientation of Relativism, Moral Intensity, Organizational Commitment, Professional Identity to the intention to conduct internal whistleblowing.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>19,604</td>
<td>2,111</td>
<td>9,286</td>
<td>0.000</td>
</tr>
<tr>
<td>The ethical orientation of relativism_M</td>
<td>0.003</td>
<td>0.005</td>
<td>0.075</td>
<td>0.508</td>
</tr>
<tr>
<td>Moral intensity_M</td>
<td>0.004</td>
<td>0.004</td>
<td>0.161</td>
<td>1.145</td>
</tr>
<tr>
<td>Organizational commitment_M</td>
<td>-0.003</td>
<td>0.004</td>
<td>-0.101</td>
<td>-</td>
</tr>
<tr>
<td>Professional identity_M</td>
<td>0.004</td>
<td>0.004</td>
<td>0.145</td>
<td>0.964</td>
</tr>
</tbody>
</table>

3.2 Discussion

The ethical orientation of relativism is one of the factors that encourages individuals to take internal whistleblowing actions at Regency Regional Work Unit in Sumenep Regency. Ethical relativism is the way individuals view right or wrong actions according to their respective views. The results of this study indicate that employees in the Regency Regional Work Unit of the Sumenep Regency Government view that whistleblowing is an ethical and commendable act because it has helped uncover a crime.

Moral intensity is one of the factors influencing the intention to conduct internal whistleblowing at Regency Regional Work Unit in Sumenep Regency. Every employee in the Sumenep Regency Regional Work Unit who has high moral intensity will tend to do something they think is good and right, including to take whistleblowing. By becoming a whistleblower, someone has tried to prevent the impact of a hidden fraud.

Organizational commitment is one of the factors affecting the intention to conduct internal whistleblowing at Regency Regional Work Unit in Sumenep Regency. Someone who is highly committed will tend to become a whistleblower. someone with high organizational commitment, they will choose to report various acts of fraud which they think will damage the image of the organization. So that becoming a whistleblower is an action to save the good name of an organization. in addition, by reporting an act of fraud to their superiors, employees will have the opportunity to demonstrate their existence to their superiors of a commitment to an institution where they are located.

Professional identity is one of the factors that influence the intention to conduct internal whistleblowing at Regency Regional Work Unit in Sumenep Regency. One of the ways to show the professional identity of employees is by looking at their loyalty when they know that there is an act of fraud or not. Professional identity is the level of individual loyalty to the profession as perceived by the individual. The act of whistleblowing can be described as a process that involves individuals and organizations, so that the higher the professionalism of an individual, they will tend to become a whistleblower.
Legal protection is not a variable that can moderate the Ethical Orientation of Relativism, Moral Intensity, Organizational Commitment, Professional Identity to the intention to conduct internal whistleblowing. The legal protection given to whistleblowers must really be realized. As we know that whistleblowers who are also suspects in the same case cannot be exempted from criminal charges, but their courage to disclose crimes that have occurred is not an easy thing because they must be faced with various risks, therefore, legal protection must be implemented by law enforcement officials or security forces to provide a sense of security both physically and mentally from threats, disturbances, terror and violence from any party or even being freed from legal traps in accordance with the United Nation Convention Against Corruption which is an international legal instrument regarding legal protection against whistleblowers.

4 Conclusion

The conclusions in this study are as follows:

− The ethical orientation of relativism is one of the factors that encourages individuals to take internal whistleblowing actions at Regency Regional Work Unit in Sumenep Regency.
− Moral intensity is one of the factors influencing the intention to conduct internal whistleblowing at Regency Regional Work Unit in Sumenep Regency.
− Organizational commitment is one of the factors affecting the intention to conduct internal whistleblowing at Regency Regional Work Unit in Sumenep Regency.
− Professional identity is one of the factors that influence the intention to conduct internal whistleblowing at Regency Regional Work Unit in Sumenep Regency.
− Legal protection is not a variable that can moderate the Ethical Orientation of Relativism, Moral Intensity, Organizational Commitment, Professional Identity to the intention to conduct internal whistleblowing.
− While the suggestions given in this study are as follows:
  − With the coefficient of determination which is only 34.4%, it is recommended to identify other variables that influence the intention to do internal whistleblowing such as reward, religiosity, and several other variables.
  − Adding an interview element to the research process will strengthen the answers of the respondents.

The research implications of this research is expected to be a reference material for auditors of the inspectorate, especially for the Inspectorate of Sumenep Regency in designing strategies to increase the whistleblowing intention of its employees and designing or perfecting the whistleblowing system at the institution by taking into account the factors that influence the intention to take whistleblowing action. Efforts to increase the intention to take whistleblowing can be done, for example, through ethical training and comprehensive socialization on fraud, the benefits of whistleblowing, and procedures for carrying out appropriate whistleblowing. Through these efforts, it is expected to increase awareness of the impact of serious fraud and increase the positive response of auditors' attitudes towards whistleblowing.
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References

The Process of Making Consumer Purchase Decisions on Halal Cosmetics in Pekalongan City

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Abstract. The purpose of this study was to determine how the consumer decision making process in purchasing halal cosmetics in Pekalongan City. The method used in this research is descriptive method and chi square test. The number of respondents who became the research object was 150 people with a purposive sampling technique. The purchasing decision making process occurs in five stages. At the introduction stage the most influential thing is product quality, advertising models or brand ambassadors, and the influence of price. In the information search stage, namely the expiration date and the source of commercial information. In the alternative evaluation stage, namely halal guarantee, guarantee of the safety and benefits of cosmetic products labeled halal. At the purchase decision stage is the convenience and practicality of the place of purchase. Post-purchase behavior that influences respondents to make purchases is respondent satisfaction and pricing for cosmetic products. There is one variable that has a relationship between the characteristics of the respondent and the factors of the purchase decision, namely the latest education with cultural factors.

Keywords: Cosmetics, Halal label, Purchase decision

1 Introduction

The halal lifestyle has recently been sweeping the world, including Indonesia. One of the halal products that are developing in Indonesia is cosmetic products. The reason consumers choose cosmetics with a halal logo is the safety and quality of the cosmetic content. This is as stated by Majid, Sabir, and Ashaf [1] that awareness, religion and halal certificates affect Muslim consumer purchases because they already feel safe with the cosmetic content and quality of the cosmetics to be used.

According to the Association of Indonesian Cosmetics Companies (Perkosmi) in 2016, out of 500 cosmetic companies, only 70 companies are halal certified. With the increasing number of cosmetic companies emerging in Indonesia, the competition in the cosmetics business is getting tougher. To be able to win the competition so as not to be left behind by consumers, producers must follow the factors behind consumer purchasing decisions for a product.

The consumer behavior model can be seen from the decision-making process, where the decision-making process is influenced by external factors and internal factors at the input process stage. Kotler and Keller [2] state that the stages of consumer purchases go through the stage of identifying needs, searching for information, evaluating alternatives, purchasing decisions and post-buying behavior for halal cosmetic products in Pekalongan. This research is expected to provide a clear picture of the decision-making process for purchasing halal cosmetic products.
products in Pekalongan. This can also be used as a consideration for determining further marketing strategies for halal cosmetic companies.


In addition, several studies regarding the halal label were conducted by Aiedah et al.;[7] who researched a descriptive analysis of the generation Y perceptions on the national halal certification Malaysia; Azreen [8] who examines factors influencing attitude towards halal cosmetic among young adult urban Muslim women: a focus group analysis; Vloreen NM et al., [9] who examined acceptance on halal food among non-Muslim consumers; Endah [10] who examines the buying behavior of cosmetics labeled halal by Indonesian consumers.

2 Method

The type of data used in this study consists of primary data and secondary data. In this study, primary data were obtained from interviews or the results of filling out questionnaires. The questionnaire was structured to identify consumer characteristics and analyze the consumer purchasing decision-making process. Meanwhile, secondary data were obtained from the Central Statistics Agency (BPS), as well as other information related to research obtained from literature books, libraries, and the internet.

The number of respondents who became the object of the study was 150 people with a purposive sampling technique. The consideration in question is that the residents of Pekalongan City are female with a minimum age of 15 years and women who work and use cosmetics every day.

The data analysis used was qualitative and quantitative analysis. Qualitative data processing using descriptive analysis method. Meanwhile, quantitative analysis uses the Chi Square test. The basic Chi Square formula [11] is:

$$X^2 = \frac{\sum (f_0 - f_e)^2}{f_e}$$

Information:
- $X^2$: Chi Square value
- $f_0$: observed frequency
- $f_e$: expected frequency

The hypothesis in this study are:
- $H_0$: There is no relationship between the characteristics of the respondent and the factors in purchasing decisions for cosmetics labeled halal.
- $H_1$: There is a relationship between the characteristics of the respondents and the decision factors for purchasing cosmetics labeled halal.

Chi Square test was performed using SPSS version 24 with a significant level of 0.05. The decisions taken from the Chi Square results are:
- If the p value $< \alpha$, $H_0$ is rejected, it means that the sample data supports a significant
(significant) relationship.

- If the p value $\geq \alpha$, $H_0$ is accepted, it means that the sample data does not support a significant relationship (not significant).

3 Results and Discussion

3.1 Respondent characteristics

Based on the results of the study, it was found that the characteristics of the respondents were based on age, education, occupation, income, expenditure, and frequency of purchases. In this study, the majority of respondents were aged 16 to 25 years with a percentage of 73%. Based on the respondent's latest education, the majority graduated from high school / equivalent with a percentage of 59%. The majority of respondents work as private employees with a percentage of 58%. Based on income, the majority of respondents have an income range of Rp 100,000 - Rp 1,000,000 with a percentage of 51%. Respondents spent an average of Rp 50,000 - Rp 100,000 per month on buying cosmetics. While the frequency of purchasing cosmetics each year the majority of respondents make 4 to 6 purchases.

3.2 Identification of the process of decision making to purchase cosmetics labeled halal

In buying a consumer product through the decision stages. These stages consist of: decision recognition, information search, alternative evaluation, purchase decision, and post-purchase evaluation. Based on the results of the research, the stages of respondents' purchasing decisions for cosmetics labeled halal can be described in the following tables.

3.2.1 Needs introduction

The buying process begins when the respondent realizes a problem or need that is triggered by internal or external stimuli. In this study, the process of identifying respondents included purchase motivation, social factors, and halal label considerations when purchasing cosmetics. Based on Table 1, it is known that the motivation or reason for the majority of respondents to buy cosmetic products labeled halal is because of the appropriate quality, which is 63%. The quality of cosmetic products labeled halal is as expected by the respondents, thus encouraging respondents to make purchases.

The most influence with a percentage of 30% is the advertising model / brand ambassador. For a company, the use of brand ambassadors aims to influence consumers to buy products. 91% of respondents answered that the halal label was a consideration when buying cosmetic products. Meanwhile, another 9% stated that they did not consider halal labels on cosmetics before buying. This means that it is important to include the halal label on the packaging of cosmetic products that has been halal certified.
Table 1. Results of the needs recognition stage

<table>
<thead>
<tr>
<th>Needs Introduction</th>
<th>Information</th>
<th>Amount (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivation</td>
<td>Quality is appropriate</td>
<td>63</td>
</tr>
<tr>
<td></td>
<td>Price</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Easily obtained</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Promotion push</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>11</td>
</tr>
<tr>
<td>Sub-Total</td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>Social factors</td>
<td>Advertising model / brand ambassador</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Friend</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Family</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>Co-workers</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Seller</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Sales representative</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>13</td>
</tr>
<tr>
<td>Sub-Total</td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>Halal label as purchase considerations</td>
<td>Yes</td>
<td>91</td>
</tr>
<tr>
<td>Sub-Total</td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>

3.2.2 Information search

In this research, information search includes searching for information on halal products, information on packaging and sources of information on cosmetic products with halal labels. The results of the information search process can be seen in Table 2.

Table 2. Results of the information search stage

<table>
<thead>
<tr>
<th>Information Search</th>
<th>Information</th>
<th>Amount (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Find out information</td>
<td>halal product</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Not</td>
</tr>
<tr>
<td>Sub-Total</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information on packaging</td>
<td>Expired date</td>
<td>42</td>
</tr>
<tr>
<td></td>
<td>Material composition</td>
<td>38</td>
</tr>
<tr>
<td></td>
<td>Specification</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>How to use</td>
<td>7</td>
</tr>
<tr>
<td>Sub-Total</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resources</td>
<td>Commercial sources</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>Personal sources</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>Public sources</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Source of experience</td>
<td>7</td>
</tr>
<tr>
<td>Sub-Total</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Based on Table 2, it was found that 83% of respondents sought information on the halalness of cosmetic products before buying. Meanwhile, the other 17% buy cosmetic products without first looking for halal information. Information on cosmetic product packaging consists of ingredient composition, expiration date, specifications, and usage method. The most important information on cosmetic packaging is the expiration date with a percentage of 42%, because knowing the expiration of make up is important to ensure that the product is still fit for use or not. The source of information where the respondent for the first time knew that most of the
cosmetics labeled halal were from commercial sources of 60%. Commercial sources include advertisements, salespeople, websites.

Furthermore, respondents mentioned the brand of cosmetic products that first appeared when the word cosmetics was mentioned. Respondents' answers to cosmetic brands by respondents can be seen in Figure 1.

Based on Figure 1, there are several cosmetic brands as responses from respondents about the brands that first come to mind when the word cosmetics is mentioned. The biggest answer is Wardah cosmetic brand with 97, then Make Over with 11, Maybelline with 1. Apart from being asked questions about cosmetic brands, respondents were also asked questions about brands of halal cosmetic products which were their top of mind. Furthermore, the responses of respondents to halal cosmetic brands can be seen in Figure 2.

Based on the graph in Figure 2, there are three cosmetic brands as respondents' answers about cosmetic brands labeled halal which first came to mind. The biggest answer was Wardah cosmetic brand with 111, Safi brand with 27, and Sariayu brand with 6.

### 3.2.3 Alternative evaluation

In this study, the alternative evaluation process includes the basic considerations for choosing cosmetics as well as the respondents' confidence in the safety and benefits of the product. Based on Table 3, 65% of respondents made halal assurance the basis for choosing
cosmetic products. The basis for considering halal assurance in choosing cosmetics can be caused by the high confidence of respondents in the safety and benefits of cosmetics labeled halal, namely 85% for safety beliefs and 87% for confidence in the benefits obtained.

Table 3. Results of the Alternative Evaluation Stage

<table>
<thead>
<tr>
<th>Alternative Evaluation</th>
<th>Information</th>
<th>Amount (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The basis for the balance of choosing cosmetics</td>
<td>Halal guarantee</td>
<td>65</td>
</tr>
<tr>
<td></td>
<td>Brand</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Packaging</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Price</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Choice of Variants</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>-</td>
</tr>
<tr>
<td>Sub-Total</td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>Confidence in the safety of cosmetics labeled halal</td>
<td>Yes</td>
<td>85</td>
</tr>
<tr>
<td></td>
<td>Not</td>
<td>15</td>
</tr>
<tr>
<td>Sub-Total</td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>The belief in the benefits of cosmetics labeled halal</td>
<td>Yes</td>
<td>87</td>
</tr>
<tr>
<td></td>
<td>Not</td>
<td>13</td>
</tr>
<tr>
<td>Sub-Total</td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>

3.2.4 Buying decision

In the purchase decision stage, respondents make purchases of the products they think are most needed. In this study, the purchase decision consists of the place of purchase and the reasons for the choice, and the type of purchase made. The results of the purchasing decision process can be seen in Table 4.

Table 4. Results of the Purchasing Decision Stage

<table>
<thead>
<tr>
<th>Buying decision</th>
<th>Information</th>
<th>Amount (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Where to buy cosmetics</td>
<td>Supermarket</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Convenience store</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Cosmetics specialty shop</td>
<td>81</td>
</tr>
<tr>
<td></td>
<td>Online shop</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>-</td>
</tr>
<tr>
<td>Sub-Total</td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>Reasons for choosing the place of purchase</td>
<td>Close to where to live</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Cheaper prices</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>Conveniant and practical</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>Satisfactory service</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>-</td>
</tr>
<tr>
<td>Sub-Total</td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>Purchase type</td>
<td>Well planned</td>
<td>84</td>
</tr>
<tr>
<td></td>
<td>Unplanned</td>
<td>16</td>
</tr>
<tr>
<td>Sub-Total</td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>

Based on Table 4, as many as 81 respondents bought cosmetic products at cosmetic specialty stores. The choice was made because most respondents felt that the place was comfortable and practical. The type of purchase made by the respondent is a planned purchase, the respondent first determines the product of his choice before making a purchase.
3.2.5 Post-purchase behavior

After making a purchase, if the product performance meets expectations, the respondent is satisfied. If the product performance does not meet the criteria, the respondent will be disappointed. These two things will determine whether the respondent should re-purchase or not. In this study, the post-purchase behavior stage includes respondent satisfaction, action when the product runs out, and action if the price goes up. The results of the post-purchase behavior stage can be seen in Table 5.

Table 5. Results of the Post-Purchase Behavior Stage

<table>
<thead>
<tr>
<th>Buying decision</th>
<th>Information</th>
<th>Amount (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondent satisfaction after buying</td>
<td>Satisfied</td>
<td>97</td>
</tr>
<tr>
<td></td>
<td>Not satisfied</td>
<td>3</td>
</tr>
<tr>
<td>Sub-Total</td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>The action when the product runs out</td>
<td>Look to other stores</td>
<td>71</td>
</tr>
<tr>
<td></td>
<td>Buy a similar product</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>Don't buy</td>
<td>12</td>
</tr>
<tr>
<td>Sub-Total</td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>Action if the price of cosmetics goes up</td>
<td>Keep buying</td>
<td>85</td>
</tr>
<tr>
<td></td>
<td>Buy another product</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Will not buy</td>
<td>2</td>
</tr>
<tr>
<td>Sub-Total</td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>

Based on Table 5, almost all respondents, as many as 97 respondents, were satisfied with the cosmetic products that had been purchased. The respondent's action when the product to be purchased is out of stock as many as 71 respondents will look to other stores and will continue to buy even though the price increases. Both of these can describe the loyalty of respondents to cosmetic products labeled halal which are used quite high. However, even though after the purchase most of them expressed satisfaction, when the price increased, there were some consumers who switched to other similar products by 13%.

4.3 Results of crosstab analysis with chi-square test

Based on the results of the Crosstab analysis, it was found that the characteristics of the respondents as a whole did not have a relationship with the factors of the respondent's purchase decision, but there was one variable that had a significant relationship with the Asymp value. Sig (2-sided) Chi-square <α (0.05 ) namely the last educational variable with cultural factors.

4 Conclusion

The conclusions in this study include the characteristics of the respondents are career women who live in Pekalongan City, are young, with the majority of education, graduated from high school/equivalent, working as a private employee, middle class income range, the average expenditure for cosmetics is fifty thousand rupiah to one hundred thousand rupiah per month with a frequency of purchasing cosmetics four to six times per year. The purchasing decision making process occurs in five stages. At the introduction stage the most influential thing is product quality, Advertising models or brand ambassadors, and the influence of price. At the
information search stage that needs to be considered are the expiration date and the source of commercial information. In the evaluation stage, the alternatives that need to be considered are halal assurance, guarantee of the safety and benefits of cosmetic products labeled halal. The dominant answer at the purchase decision stage is convenience and practicality of the place of purchase. At the post-purchase behavior stage that influences respondents to make purchases is respondent satisfaction and pricing for cosmetic products. The characteristics of the respondents as a whole do not have a relationship with the purchasing decision factors of the respondents, but there is one variable that has a relationship, namely the last education with cultural factors.

Acknowledgement

On this occasion the compilers offer infinite gratitude to Allah SWT, because with His permission, compilers can complete the research in a timely manner. Compiler also would like to thank profusely to all those who helped in the research. thank you to the grant funding scheme for Beginner Lecturer Research DRPM KEMENRISTEKDIKTI Fiscal Year 2020.

References

The Effect of Product Knowledge, Perceive of Fullness and Promotion to Intention to Use Electronic Money Server Based

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Abstract. Money has developed rapidly over time as payment tools. The development of money is also influenced by the development of electronic money generating information technology. The volume of transactions and the value of electronic money have recently increased as customer demands for payment tools have increased. Many factors affect the desire of consumers to use electronic money. The objective of the study is to analyze the effect of product knowledge and promotion on the purpose of using an electronic money-based server. This study was conducted at Muhammadiyah Pekajangan Pekalongan Faculty of Economics and Business University, where a total sample of 183 people were taken using a targeted sampling method. Using analysis data, data processing includes validity tests, trustworthiness tests, normality tests, multicollinearity tests, heteroscedasticity tests, linear regression tests, F-tests, t-tests, and determination coefficients. The results of this study showed that all variables are positive. The usefulness has the greatest influence on purpose as the coefficient of regression is 0.722. and the product knowledge has a coefficient of regression 0.204.

Keywords: Server based electronic money, intention to use, product knowledge, perceived usefulness

1 Introduction

Information technology is a technology used to process data to create quality information, specifically relevant, accurate and up-to-date information for personal, business and government use in a variety of ways.

Informatics is growing rapidly today. The development of information technology can improve performance and allow various activities to be implemented quickly so that productivity is increased and a new way of life is encouraged. The effects of the development of IT are evident in several fields, including the payment system, especially the retail payment system known as electronic money (e-money).

Electronic money according to the Indonesian Bank regulation [1] is a payment tool issued on the basis of the amount of money that was deposited with the issuer in advance, and the amount of money that was electronically stored on a media server or chip. Since its launch in 2007, the use of electronic money has continued to grow in Indonesia. This can be seen from the number of transactions, the amount of money in circulation and the number of electronic
money organizers (www.bi.go.id). In terms of the number of users also experienced per plants reached 77.6% [2].

One way to expand the use of electronic money by embracing the younger generation, especially students. The students' potential for increasing the use of electronic money is both an open attitude to change and an interest in trying new things. A survey conducted by MARS Indonesia institute in 2013 on the level of public awareness of e-money showed the following results: age 18-24 years of age of 16.7%, age 25-34 years of age of 30.9%, age 35-55 years of age of 20.2%. From these results it is unfortunate because the younger generation, especially students should be able to give a big positive influence in terms Electronic money usage. Parastiti Study, et. al [3] shows the low interest of students in the use of e-money due to lack of information about the product and prefer to use cash. Meanwhile, according to Gilbert (2014) quoted from the 6.com, Indonesian consumers are still afraid to use e-money. They prefer interbank transfer and COD (Cash on Demand).

Based on the phenomenon that occurred, encouraged many researchers interested in studying factors related to the interest in e-money use. Ramadhan, et.al [4] examined the perceived use of electronic money by students and showed the results that the use of e-money interests among students if the product is easy to use, has a high level of security and a small risk. However, the perception of benefits shows results that have no significant impact on the interest in e-money. Other research by Candraditya, et.al [5] and Yogananda, et.al [6] showed different results, students are interested in using e-money if a product provides benefits or benefits for transactions that support student activities.

On the basis of the background description above, this study aims: to analyze factors that influence interest in the utilization of server-based e-money in students of the Faculty of Economics and Business, to analyze the impact of product knowledge and to assess the interest of students of Economics and Business in the use of server-based e-money.

2 Methods

The research method was used a quantitative method. The data was collected with distributed questionnaire to respondent. Research population is a college student at Pekalongan University Faculty of Economics and Business. The sampling method was used with criteria for purposeful sampling. Tests performed using SPSS 24 software.

Validity test and reliability test are the method of data analysis in this study. Validity tests are used to assess the feasibility of items in a variable definition list of questions (Sujarwani, 2016).

The reliability test is a measure of the stability and consistency of interviewees in responding to questions related to the structure of questions which are dimensions of a questionnaire (Sujarwani, 2016). Reliability testing of each variable is performed with Cronbach Alpha Coefficient. The data obtained will be reliable if the value of Cronbach Alpha is greater than or equal to 0.6 (Trihendradi, 2011). Normality Test assumption tests are used to determine if variables that are compared to the average are distributed normally. The decision is taken when the p-value value is greater than the significant level, then the distribution of research is normal and testing is done with a parametric statistic. If the p-value value is smaller than the significant level, then the distribution of research is abnormal and testing should be done with non-parametric statistic. In this study, the hypothesis testing uses trajectory analysis to examine the model of a predetermined relation to find no cause. Path analysis can either directly or
indirectly estimate the extent of the causal relationship between a number of variables and the
hierarchy of the position of each variable in a series of causal paths. Direct influence means the
direction of a relationship without passing another variable, while indirectly having to pass
another variable. To see the magnitude of direct influence between variables using a beta
coefficient or standardized regression coefficient

3 Research and Discussion

In the past, to test the hypothesis, product knowledge and full perception of the intention to
utilize electronic money based on the server, the following results from the analysis of research
data using SPSS 23.0 software.

Normality test results show a probability value of 0.200, and this value is more significant
than 0.05. This means that the data is normally distributed. The autocorrelation test results show
a probability value of 0.745, and this value is more significant than 0.05 so that no
autocorrelation occurs. Multicollinearity test results show the tolerance value for X1 (product
knowledge), X2 (perceived of fullness) of 0.517 and 0.324. These values are more significant
than 0.10, which means that there is no multicollinearity problem.

Adjust R Square value of 0.426, which means that intention to use variable can be explained
by independent variables by 42.6%, while the remaining 57.4% is explained by other factors not
examined. Furthermore, based on the F statistical test, it is known that the calculated F value is
9,013, with a significance value of 0.005. This means that the significance value is less than
0.05. So, it can be concluded that simultaneously, the independent variable has a significant
influence on the dependent variable (see Table 1).

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>.426</td>
<td>.967</td>
</tr>
<tr>
<td>Product Knowledge</td>
<td>.204</td>
<td>.055</td>
</tr>
<tr>
<td>Perceived of fullness</td>
<td>.722</td>
<td>.104</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Intention To Use

The t value calculates the knowledge variable of 3.693 > the table t value is 1.9733 (df=179)
for the first hypothesis. Moreover, the value of t is 0.000 < 0.05, so that H0 has been rejected
and H1 accepted. This shows that product knowledge has a positive and significant impact on
the interest of university students in using electronic money based on the server. This is
consistent with previous research [7] and [8].

For the second hypothesis the value t calculates the perception variable of 6.926 > 1.9733 t
value (df= 179). Furthermore, the value of t is 0.000 < 0.05, so that H0 is rejected and H2
is accepted. This indicates that the perception of benefits has a positive and significant impact
on the interest of students to use electronic money based on the server. This is consistent with
previous investigations [9] and [6].
4 Conclusion

Due to the results of information processing using analysis tools, this study shows that product knowledge and perceived completeness have a positive and significant impact on the interest in the use of electronic money based on servers. It can be interpreted that among students, especially FEB UMPP students have an interest in using server-based electronic money, if the product has beneficial benefits while facilitating its work activities. In addition, complete product information and interesting ways of promoting make students interested in using server-based electronic money.

References

The Use of Booklet Media in Managing Bullying Behavior at the Lowest Class School

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Abstract. This study discusses the use of booklet media in overcoming bullying behaviour in low-grade elementary schools. This study uses a 4-D research and development (R&D) method: Define, Design, Develop, and Disseminate. The study results obtained validation from experts in the material, media, and language showed that the booklet that was developed met the valid criteria and was suitable for use. The validation test results by elementary school teachers in Bogor Regency, which consisted of 30 booklet teachers, were very relevant to be used, did not need to be revised. A large-scale trial to grade 3 elementary school students in Bogor obtained that the booklet media was valid and suitable for use. The results of students' understanding of bullying at the beginning were shallow, amounting to only 31.03 percent while after learning given using the booklet media rose to 72.41%. Thus this media booklet can be used as early prevention of bullying deviant behaviour. The use of booklet media with all its weaknesses and advantages is expected to positively influence the loss of bullying behaviour among students so that harmony is established within the school environment and realizing the school as a safe, comfortable, and pleasant place. Also, the school, as an educational institution, becomes a place to gain knowledge and develop one's maturity to show that he is intelligent rationally, emotionally, socially, and spiritually.

Keywords: Booklet, Bullying, Low grade, Elementary school

1 Introduction

The problem of students’ behaviour for several years has become the concern of the government, schools, and society at large. The new public woke up and was shocked when the news about violence in students’ circles became even more alarming. Violence in schools is increasingly diverse, including bullying cases by a student who is carried out in groups or individually against other students in school [1]. A school is a place that is safe, comfortable, and fun, as a place to gain knowledge as well as a place to produce the maturation of a person who can show that he is intelligent, rational, emotional, social, and spiritual [2], [3].

The phenomenon of bullying is no longer a new thing, especially in education at various levels, light, moderate, and severe. The mildest bullying cases can be intense when the bully feels prolonged hurt and harbour feelings of resentment towards someone that leads to death [4], [5]. In Indonesia, the word bullying is known as the word "bullying" which means challenging or difficult. After being given the adjunct of speech, it becomes "bullying" which means bullying, and exploiting or continuing acts of violence [6], [7].
The problem of bullying is increasingly worrying, as reported by the Indonesian Child Protection Commission (KPAI) that currently bullying is in the top rank according to public complaints from 2011 to August 2014. The Indonesian Child Protection Commission noted that there were 369 complaints related to bullying. Of the cases, about 25% came from the education sector, with 1,480 bullying cases, KPAI stated that bullying as a form of violence in schools beats student brawls, educational discrimination, and complaints against illegal payments [8], [9]. Research conducted by Arofa, et al., showed that the results of the study in 3 (three) major cities in Indonesia, namely: Yogyakarta, Surabaya, and Jakarta noted that students in SMP were 66.1% while students from SMA differed only slightly, namely 67.9%, psychological bullying ranks first while verbal bullying ranks second [10].

The case of bullying deviant behaviour does not happen to junior and senior high school students only but has reached elementary school students, such as driving to grade 2 students of Elementary School 07 PagiKebayoran Lama Utara, South Jakarta. The bullying case comes from ridicule during drawing school activities to continue to abuse and make a student die. A similar case also happened to a grade 5 student at Bintara Jaya 2 State Elementary School, Keranji, West Bekasi. The incident occurred during class hours, and the homeroom teacher was leaving the classroom. A student was mistreated by 10 of his friends until he was injured [11].

Based on the various explanations above, bullying deviant behaviour must be stopped to reduce it because it is known that bullying hurts students' survival and even takes victims. Also, the problem of bullying causes stress to students, lack of self-confidence, loneliness, anxiety disorders, affecting social relations, even children who are excluded can withdraw from social relationships, resulting in students not having the opportunity to develop the social skills needed [12].

Another adverse effect is a decrease in enthusiasm for learning so that it results in poor learning outcomes and learning achievement, especially for elementary school students who are in this low class, which will continue in the next grade even after the next level of education [13]. This age period is a short period of child development but a significant period in determining the next phase of life [14]. Therefore, all the potential that the child or students have needs to be encouraged so that the child's potential will develop optimally.

Low-grade students in learning are very operational and concrete. They have unique characteristics [15], which are still dominated by egocentric nature so that they require understanding in interacting with their friends [16]. Thus, if the basic concept given is wrong, it will carry over to adulthood. In this phase, development is influenced by the environment [17], [18]. For this reason, low-grade elementary school children need attention and guidance, especially from various parties, including parents, schools, and teachers, mainly to prevent bullying deviant behaviour.

Various bullying problems that occur at school require a step and action through various learning media to be understood by students that teachers and parents can convey in preventing bullying behaviour as early as possible so that the school becomes a place to gain knowledge that is safe, comfortable and enjoyable, and the creation of educational goals to produce intelligent humans rationally, emotionally, socially and spiritually.

2 Methods

This research uses a development research method called Research and Development (R & D) with a 4-D model. In developing booklet media through expert assessment or validation, two
material experts, two media experts, and two linguists determine whether the resulting product is appropriate or feasible. After the resulting product was assessed as viable and valid by the expert, it was continued with a validation test on 30 elementary school teachers in Bogor Regency and became the basis for determining the final product. [19], [20].

Questionnaire instruments or non-test questions are used to validate the product with the answers provided in a checklist (✓). Besides, open interviews with experts were used. There were 20 questionnaire questions for material experts and media experts and 18 questions for linguists, while the test for teachers used 20 questions. The questionnaire instrument used had 5 answer choices, namely very feasible with a score of 5, possible with 4, entirely possible with a score of 3, less achievable with a score of 2, and not viable with a score of 1. To test the effectiveness of the booklet using multiple-choice questions 20 Problem. This test was carried out by grade III students of Kedunghalang 03 Elementary School in Bogor City, consisting of 29 students with 14 male students and 15 female students.

The results of the answers are then searched for the percentage of the feasibility level of the booklet media developed from the results of the assessment of material experts, media experts, linguists, small-scale tests, and large-scale tests using the following formula [21]:

\[
P = \frac{\sum \text{Score obtained}}{\text{Skor maksimal yang diharapkan}} \times 100\%
\]

The results of the answers are then sought for the average and converted into an assessment statement to determine the quality and level of product validity in the form of booklet media can be seen in Table 1 below.

<table>
<thead>
<tr>
<th>No.</th>
<th>Validity Criteria</th>
<th>Validity Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>04.01 – 05.00</td>
<td>Very valid and very decent, no need to revise</td>
</tr>
<tr>
<td>2.</td>
<td>03.01 – 04.00</td>
<td>Valid and decent but needs a little revision</td>
</tr>
<tr>
<td>3.</td>
<td>02.01 – 03.00</td>
<td>Quite valid, can be used but needs revision</td>
</tr>
<tr>
<td>4.</td>
<td>01.01 – 02.00</td>
<td>Invalid, it is recommended not to use it because it needs a lot of revisions</td>
</tr>
<tr>
<td>5.</td>
<td>00.00 - 01.00</td>
<td>Invalid - may not be used</td>
</tr>
</tbody>
</table>

3 Results and Discussion

The final product of this research is a media development booklet with a drop arrangement as follows: 1) the booklet is entitled "Prevention of Bullying for Elementary School Students", 2) uses the writing of time new romance with a writing size of 10 pt, 3) the number of pages consists of 24 pages with a height of 13.3 cm, a width of 9.5 cm and a thickness of 2.03 cm, 4) cover of the front, inside and back cover, 5) Contents consisting of 7 chapters, 6) introduction, 7) list contents, 8) Conclusions, and 9) bibliography. For the contents, chapter 1 contains an introduction. Chapter 2 contains the meaning of bullying, chapter 3 the impact caused by bullying, chapter 4 signs of being a victim of bullying, chapter 5 with the title so as not to bully, chapter 6 Attitudes and actions for bully handling, and chapter 7 penalties for bullies.

After the draft is made, it is then tested for validation by the experts. The results of the experts' assessment, from the material expert 1 test obtained a score of 81 with an average score of 4.05 and material expert 2 of a score of 87 with an average score of 4.35 from the two experts,
the overall score was 168 with an average score in the range of 4.2 or around 84%. Thus, the results of the material expert's validation are declared valid and very suitable for use, do not need to be revised. The results of the validation of the media expert 1 total amounted to 82 or the average score range 4.1 from the media expert 2 was 85 or the average score was 4.25. The total number of media experts is 167 with an average score of 4.12 and is in the range of 82.4%, so based on the table the criteria for giving the validity value of the results of the media booklet media experts are declared valid and very suitable for use, do not need to be revised. The validation results of linguist 1 is 67 or is at an average of 3.73, and linguist 2 is 71 or an average of 3.95. The two linguists' results obtained a total number of 138 or in the range of 3.84 or in the field of 76.6%. Based on these two linguists, it is declared valid and feasible but needs a little revision. From all the experts, the overall score is obtained by an average of 4.06 so that the booklet according to the experts is declared valid and very suitable for use, it does not need to be revised. Although the experts stated that it was useful and very relevant for help, it did not need to be revised, but the experts provided input so that the title was more interesting, added verses and hadiths that prohibited bullying and the legal basis for bullying.

After being corrected and validated by experts, it was continued with a validation test by elementary school teachers in Bogor Regency, consisting of 30 teachers. The test validation assessment results by elementary school teachers obtained a total number of 2516 with an average of 4.19 or in the range of 83.5%. The test results from elementary school teachers mean that the booklet media is very suitable for use and does not need to be revised. The following is a recapitulation of the experts and teachers shown in Table 2 below.

<table>
<thead>
<tr>
<th>No</th>
<th>Validator</th>
<th>Amount</th>
<th>Average</th>
<th>Percentage</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Material Expert</td>
<td>168</td>
<td>4.2</td>
<td>84</td>
<td>Valid and very decent</td>
</tr>
<tr>
<td>2</td>
<td>Media Expert</td>
<td>167</td>
<td>4.12</td>
<td>82.4</td>
<td>Valid and very decent</td>
</tr>
<tr>
<td>3</td>
<td>Linguist</td>
<td>138</td>
<td>3.84</td>
<td>76.6</td>
<td>Valid and decent but needs a little revision</td>
</tr>
<tr>
<td>4</td>
<td>Teacher</td>
<td>2516</td>
<td>4.19</td>
<td>83.5</td>
<td>Valid and very decent</td>
</tr>
</tbody>
</table>

Based on table 2, the highest assessment is given by material experts and the lowest by linguists, however, all validators state that the booklet in preventing bullying behavior for low-grade students is declared valid and suitable for use. The following is a graph of Figure 1 the results of the validation test from the experts.
Fig. 1. Results of validation recapitulation

Based on the graph in Figure 1, the results of the experts and teachers show that the booklet media is declared practical and effective by considering the number of pages, design, color, type and size of letters, paper quality, message substance, and message content depth so that it is suitable for use.

Based on the experts and teachers' input, improvements were made by changing the cover colour to be more attractive, using language that was easier to understand, and adding pictures and photos about bullying behaviour and student delinquency. Following the booklet's revision, the title was changed to “Let's Make Friends” with the background of elementary school children lining up and a child who covers his face as a sign of shame and sadness. This title and made is made so that low-level school students feel interested in reading it. The inside cover contains the authors and the title, with pictures of elementary school students dancing traditional dances. This picture is intended so that elementary school students can look for positive activities. Still on the inside cover, plus a small inscription "To hurt a friend means to hurt yourself".

Furthermore, the foreword starting with pages i and ii. The table of contents occupies page iii. The content of the booklet consists of six chapters, namely chapter 1 contains an introduction with pages 1 to 2, chapter 2 is given the title of what is bullying starting from pages 3 to 16, pages 17 to 18 contents of chapter 3 about the impact of bullying, chapter 4 contains signs - sign of being a victim of bullying on pages 19 to 21, chapter 5 contains bullying action handlers starting from pages 22 to 27. Chapter 6 starts from page 28 to page 30 with material explaining the law of bullying. Conclusions are on pages 31 and 32. Pages 33 to 35 contain a bibliography. The last page of this booklet includes the verses and hadiths about bullying entitled the bullying perpetrator can be prosecuted in the afterlife. The previouspage contains the author's bio. The inscription is "Let's Make Friends Without Hurting" in small writing on the back cover.

Furthermore, the booklet's final product on prevention of bullying behaviour in low-grade elementary school students is made according to the level of practicality with a paper size of 14.5 cm high and 9.5 cm wide. Using Time New Roman writing in 10 pt font, this is intended to make the writing easy to read. For this Booklet to be substantial, durable, and not easily damaged, the front and back covers use 410-gram art carton. For the contents, 150 grams of matt paper and laminating doof make it stick more firmly. This media booklet was developed
using the Corel Draw 6 application. The following is a booklet image in preventing bullying behaviour in low-grade elementary school students shown in Figure 2.

![Front cover and Table of contents booklet](image)

**Fig. 2. Display booklet**

After the booklet media is finished, the booklet effectiveness test is carried out, which is the final stage. At this stage, 20 multiple choice questions were used for grade 3 students at Kedunghalang 03 Elementary School Bogor City, totalling 29 male students 15 and 14 female students. However, before the booklet is tried out, first test the knowledge and understanding of students' initial understanding of bullying behaviour. Based on the questions given after being examined, the total score was 1640, the highest score was 85, the lowest score was 25, the average was 56.55, and the students who reached the predetermined score were nine students or 31.03%.

After knowing the understanding test, testing the effectiveness of the booklet’s use on low-grade elementary school students. This activity is carried out like learning activities in the preliminary test, but at this stage, the students are divided into several groups and given booklets to be read and understood to be discussed with their groups. The discussion was conducted to see to what extent booklets' effectiveness when used in arguments. The implementation results obtained an overall score of 2360, the highest score of 100, the lowest score of 55, an average of 81.38, and students who reached the predetermined value were 21 students or 72.41%. The comparison of students' understanding after and before using the booklet media can be seen in Table 3 below [23].

| Table 3. Comparison of the results of student understanding before and after the use of booklet |
|---------------------------------|----------------|--------|--------|-------|------------------|
|                                | Amount of Values | The highest score | Lowest Value | Average | Number of students of Percentage |
| Pre-Test                       | 1640            | 85      | 25      | 56.55  | 9                | 31.03            |
| Post-Test                      | 2360            | 100     | 55      | 81.38  | 21               | 72.41            |

Based on Table 3, a comparison diagram can be made between students' initial understanding and after using booklet media which has experienced a significant increase. The following is a comparison diagram which is presented in the diagram in Figure 2.
Based on the diagram in Figure 3, students' understanding of bullying at the beginning was very low, amounting to only 31.03 percent, while after being given learning using booklet media, it increased to 72.41%. Thus, this booklet media is very suitable for low-grade students who try between 6 or 7 to 8 or 9 years.

Based on the validation results from experts, teachers, and practicality and effectiveness tests, it is suitable for use. The results of this study are also following research from Gemilang & Christiana. Febriani & Winingsih's analysis that the media booklet developed for students is expected to: 1) provide alternatives in preventing bullying, 2) to find solutions to prevent bullying, 3) to cut eyes chain of perpetrators and a culture of bullying, 4) to anticipate acts of violence in schools by students, 5) to increase students' sense of concern for their environment, 6) a form of intervention to bullies that bully behaviour is behaviour that is not justified, 7) this approach reintegrates students who have made mistakes into the school community to make students who obey and obey the rules and values, and 8) make the school a safe and comfortable place for students. [24], [25]

The use of booklet media follows the character of low-grade elementary school students in learning, namely 1) concrete, low-grade elementary school students, one of its characteristics is learning from concrete things and gradually moving towards an abstract one with photos in the booklet, 2) Integrative, namely with this booklet media, elementary school students of low grade children still see something as a whole, they cannot separate a concept into parts, 3) Hierarchical, this booklet media makes children's learning methods develop gradually from simple things to more complex things, 4) The use of booklet media in serious but relaxed learning makes learning while playing because at this age students still like to play, 5) Booklet media that can be used in group learning will make students who still enjoy learning with their friends, and 6) Media booklet this makes students of this age-sensitive and rapid to imitate because there are examples or from photographs or images contained in booklets [26], [19].

With the use of this booklet media, low-grade elementary school students have morality when interacting with their peers, can consider other people's feelings when making decisions because moral cultivation is carried out without the students realizing it. Thus, it can encourage self-awareness to act with good morals so that bullying does not happen again.
4 Conclusion

Based on research on the development of a model for overcoming bullying behaviour in schools based on booklet media, it can be concluded as follows: 1) The results of the validation from the material, media, and language experts show that the booklet developed meets valid criteria and is suitable for use. 2) The results of the validation test by elementary school teachers in Bogor Regency which consisted of 30 booklet teachers were very feasible to use and did not need to be revised, 3) The results of large-scale trials for grade 3 students at Kedunghalang 03 Elementary School in Bogor City showed that the media booklet is valid and feasible to use. 4) Thus, this booklet media can be used as an early prevention of bullying deviant behaviour.

Based on the above conclusions, several things should be done: 1) That such studies should be carried out with a broader sample with various school levels. 2) Various delinquency of students must be taken as early as possible, especially since elementary school. 3) With this booklet media, the researcher recommends continued in the broader study such as drugs, free sex, and others.

Acknowledgement

This study would not have been carried out without several parties forming it. Therefore, the authors would like to thank the observers from Bismas 2020, LPPM STKIP Muhammadiyah Bogor, Head of the West Java Language Center, Principal of SDN Kedunghalang 3 Bogor City Mrs Eti Kurniati, S. Pd.

References


The Effect of Promotion Through Social Media on Purchase Decision with Viral Marketing as an Intervening Variable

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Abstract. This study aims to assess the importance of social media promotion in viral marketing buying choices as an interfering variable in XXX Donut and Coffee Kediri consumers. The research method used is the quantitative explanatory method. The number of pupils is unknown. While the sample was determined to be 100 respondents—the sampling technique used nonprobability techniques, namely accidental sampling. Data were collected using a questionnaire, which was then processed using path analysis by first testing the validity and reliability of the questionnaire created. The results demonstrated a significant direct influence between the promotion of purchasing decisions through social media and viral marketing in XXX Donut and Coffee in Kediri. Viral marketing can mediate the effect of promotion on purchasing decisions through social media. It has been shown that there is an indirect influence on buying decisions between promotion through social media. XXX Donut and Kediri Coffee.

Keywords: Promotion, social media, viral marketing, purchasing decisions

1 Introduction

The globalization and digitalization era, on the one hand, makes business opportunities more open. However, on the other hand, it is a challenge because it makes competition in the business world more competitive. Competition is due to technological developments that compete to produce quality products efficiently and changes in systems in trade, marketing, and how to transact, including how to communicate with potential consumers and customers [17]. Therefore, choosing a promotional strategy in marketing products needs to be adjusted to the times. Digital marketing, namely the use of internet facilities and other interactive technologies to create and connect identified dialogs between companies and consumers, is currently considered a marketing strategy that is effective [5]. Digital marketing can reach broad areas and even the whole world and be done 24 hours without stopping by only being connected to the internet [4]. Social media is a means of promotion proven to affect purchasing decisions [18]. Therefore, if the business can adapt to changes in people's behavior, it will open business opportunities that will be more developed, and the market share will be wider [16].

Indonesian people's behavior currently tends to like to linger in front of gadgets by opening applications, especially during the Covid 19 pandemic [15]. This condition is an opportunity for
business people to carry out promotions through social media, which is expected to influence their product purchasing decisions. One of the businesses that take advantage of this opportunity is XXX Donut and Coffee in Kediri. XXX Donut and Coffee Kediri, the leading culinary business in Kediri, increased sales turnover and made an innovation by doing digital marketing through social media. The steps taken are to promote viral products through social media. What has to be answered is whether social media promotion can influence the buying decisions of XXX Donut and coffee users through viral marketing as an interfering variable? The objective of this survey is therefore to determine (1) the significant effect of social media promotion on consumer purchase decisions, (2) the importance of promoting viral marketing promotion via social media at XXX Donut and Coffee, (3) the significant effect of viral marketing on consumer procurement decisions and (4) knowing of the important role of social media promotion in viral marketing purchasing decisions as an interim variable in XXX Donuts and Coffee Consumers.

2 Theoretical Review

2.1 Buying decision

Kotler and Keller [10] suggest the decision to purchase the full customer is a process that from all of their experiences in learning, selecting, using, and even get rid of a product”. Furthermore, Kotler and Keller [11] suggest five stages in purchasing decisions: Problems identifying, searching information, alternative assessments, buying decisions and behavior after purchase.

2.2 Social media

Social media is content which contains information generated by persons who use publishing technology, is extremely easy to access and aims at facilitating communication, influence and interaction with others and the public [13].

2.3 Viral marketing

The internet version of word-of-mouth marketing, which involves creating an email message or a marketing event which is so infectious that customers would like to pass this on to their friends, according to Kotler and Armstrong [11]. Or another understanding is the marketing of the internet version of word-of-mouth marketing, which is strongly related to creating messages or marketing methods which are so contagious that customers can and will pass them to friends. So, the term viral is used to describe the spread of messages very quickly and widely. So, viral marketing is a marketing technique using electronic or social media to achieve a marketing goal that is carried out through a chain of communication processes or reproduce themselves (see Table 1).
Table 1. Viral marketing components

<table>
<thead>
<tr>
<th>Consumer Buzz</th>
<th>Supporting Conditions</th>
</tr>
</thead>
</table>

2.4. Previous study

Research on digital marketing strategies through social media, viral marketing and its influence on purchasing decisions has been carried out by many previous researchers. Several previous studies have found that promotion via social media has a significant influence on purchasing decisions [18], [22], [1], [6], [7], [2], [9]. Likewise, several previous studies have concluded that viral marketing has a significant impact on procurement decisions [6], [21], [1], [19], [8].

2.5. Framework of thinking

The thinking framework is a conceptual model of how a relationship theory with several factors is defined as a problem. The relationship between promotion via social media, viral marketing and buying decisions can be described as follows, based on the formulation of the problem, as shown in Figure 1.

![Fig. 1. Thinking framework](image)

3 Research Methods

This study uses an explanatory method with a quantitative approach. The object of the research is XXX Donnut and Coffee. The exact population size is not known. The sample is determined to be 100 with the sampling technique using incidental sampling. Data were collected using a questionnaire, which was first tested using validity and reliability tests. The collected data were then analyzed using path analysis.
4 Research and Discussion

4.1 Test validity & reliability

This test is used to determine whether a questionnaire is valid or not. Validity tests were conducted on three main variables in this study: social media promotion, purchasing decisions and viral marketing. Judging from the results of Table 2 shows that the correlation value of each item score statement variable in the study, under the r table, is (0.165) which means valid. This means that all question items are able to measure the variables of purchasing decisions, promotion through social media, and viral marketing. In Table 3 the results of the Reliability test show that every variable used is said to be reliable, which means that all respondents' answers are considered consistent.

### Table 2. Validity Test Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Statement</th>
<th>Correlation Coefficient</th>
<th>r Table</th>
<th>Validity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase Decision (Y)</td>
<td>Y1</td>
<td>0.213</td>
<td>0.365</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Y2</td>
<td>0.765</td>
<td>0.365</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Y3</td>
<td>0.647</td>
<td>0.365</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Y4</td>
<td>0.528</td>
<td>0.365</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Y5</td>
<td>0.506</td>
<td>0.365</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Y6</td>
<td>0.406</td>
<td>0.365</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Y7</td>
<td>0.395</td>
<td>0.365</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Y8</td>
<td>0.319</td>
<td>0.365</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Y9</td>
<td>0.601</td>
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<td>Valid</td>
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<td></td>
<td>Y10</td>
<td>0.548</td>
<td>0.365</td>
<td>Valid</td>
</tr>
<tr>
<td>Promotion Through Social Media Social (X)</td>
<td>X1</td>
<td>0.568</td>
<td>0.365</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>X2</td>
<td>0.735</td>
<td>0.365</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>X3</td>
<td>0.709</td>
<td>0.365</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>X4</td>
<td>0.846</td>
<td>0.365</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>X5</td>
<td>0.691</td>
<td>0.365</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>X6</td>
<td>0.765</td>
<td>0.365</td>
<td>Valid</td>
</tr>
<tr>
<td>Viral Marketing (Z)</td>
<td>Z1</td>
<td>0.683</td>
<td>0.365</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Z2</td>
<td>0.606</td>
<td>0.365</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Z3</td>
<td>0.709</td>
<td>0.365</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Z4</td>
<td>0.606</td>
<td>0.365</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Z5</td>
<td>0.693</td>
<td>0.365</td>
<td>Valid</td>
</tr>
</tbody>
</table>

### Table 3. Reliability Test Results

<table>
<thead>
<tr>
<th>Research Variable</th>
<th>Cronbach's Alpha</th>
<th>Critical Value</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase Decision</td>
<td>0.741</td>
<td>0.70</td>
<td>Reliable</td>
</tr>
<tr>
<td>Promotion Through Social Media</td>
<td>0.773</td>
<td>0.70</td>
<td>Reliable</td>
</tr>
<tr>
<td>Viral Marketing</td>
<td>0.788</td>
<td>0.70</td>
<td>Reliable</td>
</tr>
</tbody>
</table>

4.2 Classical assumption test

Test classic assumptions as a requirement of multiple linear regression analysis. In the classic assumption test, it is divided into multicollinearity, autocorrelation, heteroskedasticity and normality tests. In Table 4 the normality test results show that the significance values of
each equation 1 and 2 respectively are of value > 0.05 and it is concluded that the regression model is feasible to use.

Table 4. Normality test results

<table>
<thead>
<tr>
<th>Unstandardized Residual</th>
<th>P Value</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equation 1</td>
<td>1,036</td>
<td>Data is normally distributed</td>
</tr>
<tr>
<td>Equation 2</td>
<td>1,187</td>
<td>Data is normally distributed</td>
</tr>
</tbody>
</table>

Table 5 shows that everybody variable of equations 1 and 1 has a tolerance value > 0.20 and a VIF value < 10. The results of the multicollinearity test below are shown. This shows that in the regression model there is no multi-linearity problem.

Table 5. Multicollinearity test results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Tolerance</th>
<th>VIF</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equation 1 Promotion</td>
<td>1,000</td>
<td>1,000</td>
<td>There is no multicollinearity</td>
</tr>
<tr>
<td>Social Media</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equation 2 Promotion</td>
<td>0,899</td>
<td>1,112</td>
<td>There is no multicollinearity</td>
</tr>
<tr>
<td>Social Media</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Viral Marketing</td>
<td>0,899</td>
<td>1,112</td>
<td>There is no multicollinearity</td>
</tr>
</tbody>
</table>

While the heteroscedasticity test aims to test whether there is an unequal variance between observations in the middle of regression. The results of the heteroskeda test are shown in Table 6 below. Based on the results of the analysis in Table 6 below, each variable in equations 1 and 1 has a value (p value) > 0.1.

Table 6. Heteroscedasticity test results

<table>
<thead>
<tr>
<th>Variable</th>
<th>T count</th>
<th>Sig.</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equation 1 Promotion</td>
<td>0,447</td>
<td>0,460</td>
<td>Heteroscedasticities doesn’t occur</td>
</tr>
<tr>
<td>Social Media</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equation 2 Promotion</td>
<td>1,765</td>
<td>0,681</td>
<td>Heteroscedasticities doesn’t occur</td>
</tr>
<tr>
<td>Social Media</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Viral Marketing</td>
<td>-31</td>
<td>0,975</td>
<td>Heteroscedasticities doesn’t occur</td>
</tr>
</tbody>
</table>

4.3. Model test

Model test or better known as the model feasibility test is a test that is used to measure the accuracy of the regression function. The accuracy of the model in this study is done through the measurement of the determinant coefficient values ($R^2$) and F statistical test.
Table 7. Determination coefficient test results ($R^2$)

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.838</td>
<td>0.705</td>
<td>0.693</td>
<td>1.833</td>
</tr>
</tbody>
</table>

From the results of the analysis of the coefficient of determination of data, it is known that the R Square value of 0.705. It will be perfect (100%) or close to perfect if there are other independent variables included in the model. This means that promotion through social media and viral marketing explains the buying decision at XXX Donuts and Coffee Kediri 70.5%. While 29.5 is explained by other variables outside the model.

Table 8. Statistical test results F

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>159,958</td>
<td>2</td>
<td>84,979</td>
<td>66,012</td>
<td>0.000</td>
</tr>
<tr>
<td>Residual</td>
<td>78,602</td>
<td>97</td>
<td>2,027</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>308,560</td>
<td>99</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If the value of $F_{count}> F_{table}$ then H0 is rejected and H1 is accepted, then all the independent variables influence together the dependent variable or the model made is feasible. To find $F_{table}$, first, determine the probability value and then the df value. Economic research usually uses a 5% probability level and it is known that the first and second df values are 2 and 97, then the known $F_{table}$ value of 2.358 means that H0 is rejected and H1 is accepted. Because $F_{count}> F_{table}$ is 66.012> 2.358. The results of the F statistical test analysis concluded that the independent variable, promotion through social media and viral marketing, simultaneously had an influence on purchasing decisions and the model made was feasible or appropriate. Table 8 shows the results of the regression path analysis in SPSS software.

4.4 Discussions

Table 9. Results of regression equation path analysis I

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>B</td>
<td>Std. Error</td>
<td></td>
<td>Beta</td>
</tr>
<tr>
<td></td>
<td>24.804</td>
<td>4.094</td>
<td>6.059</td>
<td>0.000</td>
</tr>
<tr>
<td>Score Promotion Through Social Media</td>
<td>0.620</td>
<td>0.155</td>
<td>0.375</td>
<td>3.999</td>
</tr>
</tbody>
</table>

Table 10. Results of R square value 1

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.373</td>
<td>0.140</td>
<td>0.132</td>
<td>3.388</td>
</tr>
</tbody>
</table>
Table 11. Results of regression equation path analysis 2

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>14,811</td>
<td>2,112</td>
<td>4,135</td>
<td>0,000</td>
</tr>
<tr>
<td>Score Promotion</td>
<td>0,334</td>
<td>0,123</td>
<td>0,178</td>
<td>2,658</td>
</tr>
<tr>
<td>Through Social Media</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Viral Marketing</td>
<td>0,870</td>
<td>0,236</td>
<td>0,117</td>
<td>4,325</td>
</tr>
</tbody>
</table>

Based on the analysis of equation 2 in Table 11, the regression equation is as follows:

\[ Y = a + b_2 X_1 + b_3 Z + e_2 \]  

\[ Y = 14,811 + 0,334 X_1 + 0,870 Z + e_2 \]

Based on \( e_2 \) values in the first regression equation can be calculated with the formula \( e_2 = \sqrt{1 - R^2} \) R square value \( (R^2) \) means the value of R square in the second equation, value \( (R^2) \) can be seen in Table 12 below:

Table 12. Results of R Square 2 Values

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0,636</td>
<td>0,405</td>
<td>0,393</td>
<td>2,833</td>
</tr>
</tbody>
</table>

So, the value of \( e_2 \) can be calculated \( e_2 = \sqrt{1 - 0,405} \) dan the result is 0.771. The value of \( e_2 \) is entered into the regression equation 2 above, and the equation becomes \( Y = 14,881 + 0,334 X_1 + 0,870 Z + 0,771 \). That means if the score is 0.334 with an error of 0.771. And if the virtual marketing score perceived by consumers increases by one unit it will also increase the purchasing decision score by 0.870 with an error of 0.771.

Fig. 2. Path analysis model

Based on the analysis of the path of regression equations 1 and 2, variable testing can be done partially/gradually that exerts influence between each variable. Criteria for testing variables partially have the following conditions:
If \( \text{Sig} < 0.1 \) then \( H_0 \) is rejected and \( H_1 \) is accepted
If \( \text{Sig} > 0.1 \) then \( H_0 \) is accepted and \( H_1 \) is rejected

- the influence of promotion through social media on XXX Donuts and Coffee's purchasing decisions. Based on the test results, the sig value is 0.015 and the beta coefficient is 0.334. The sig value of 0.015 < 0.05 means that \( H_1 \) is accepted. This means that the promotion of purchasing decisions on XXX Donuts and Coffee Kediri by social media will have a positive influence.

- The Effect of Social Media Promotion on Viral Marketing. Based on the test results, it shows that the sig value is 0.000 and the beta value is 0.620. The sig value 0.000 < 0.05 thus means that \( H_2 \) is accepted, meaning that the promotion of social media and viral marketing has a significant positive influence. The influence magnitude is 0.620.

- the effect of viral marketing on XXX Donuts and Coffee purchasing decisions. Based on the test results, the sig value is 0.000 and the beta value is 0.870. The sig value of 0.000 < 0.05 therefore signifies acceptance of \( H_3 \), which means that there is a significant positive effect between viral marketing on XXX Donuts and Coffee Kediri buying decisions. The influence magnitude is 0.870.

- the effect of promotion via social media on XXX Donuts and Coffee buying decisions with viral marketing as an intervention variable. Based on the test results, the sig value is 0.000 and the beta-coefficient value is 0.539. Consequently, the sig value of 0.000 < 0.05 means that \( H_4 \) is accepted. This means that indirectly the promotion by social media of buying decisions at XXX Donuts and Coffee Kediri with interfering viral marketing variables is significantly positively affected. This also shows that viral marketing can improve purchasing decision, as it can increase the beta coefficient from 0.334 before viral marketing to 0.539 after viral marketing mediation.

### 4 Conclusion

The results of research conducted on the XXX Donuts And Coffee Kediri can draw conclusions:
- There is a significant positive effect between promotion by social media of consumer purchasing decisions made at Donnut and Coffee Kediri.
- The impact of promotion of viral marketing conducted by Donnut and Coffee by social media has been significantly positive.
- Viral marketing has a significant positive effect on consumer purchasing decisions at Donnut and Coffee Kediri.
- There is an important positive influence between social media promotion in Donnut and Coffee Kediri's buying decisions.
- Indirectly, the promotion of purchasing decisions by consumers at Donnut and Coffee Kediri through social media has a significant positive effect and viral marketing is an intermediate variable. The results also show that viral marketing is capable of promoting consumer decisions through social media.
References


Impact of the City Park Revitalization and the Street Vendor Organization on the Level of Happiness of Pematangsiantar City Residents

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Abstract. Merdeka Square is one of the area in the heart of Pematangsiantar, a child-friendly open public space which has been around for hundreds of years to be a low-cost stress relieving site for the people. The purpose of this study was to discover the impacts of the Revitalization of Child Friendly Open Public Space, the city park, the Street Vendors Arrangement on the happiness level of the city residents. This research is an associative type, with a sample of 272 respondents, using incidental sampling. The results of this study "have positive and significant effects on the residents’ happiness: The park revitalization, t-count > t-table (5.046 > 1.969), the partial arrangement of street vendors, t-count > t-table (8.452 > 1.969) and between the park revitalization variable and street vendor, F-count > F-table (246.889 > 3.029). It turns out that happiness does not mean travelling, spending a lot of money on transportation, hotels, etc., but visiting a good City Park is another choice.

Keywords: City park revitalization, street vendor arrangement, happiness

1 Introduction

The Child-Friendly Integrated Public Space (RPTRA) in Pematangsiantar City which is best known to the public is the city park, popularly known by the local as Taman Bunga or Lapangan Merdeka. For two years (2017-2018), the city government carried out intense improvements to public facilities through its Public Housing and Settlement Service. The local Government transformed and fixed the City Park into a Green Open Space (RTH) that is more friendly to the whole residents of different races.

The residents visit the Park area every day, and usually the peak of the crowd occurs on Saturday nights, day time on Sundays and major holidays. Most of them bring their family and friends with them. This phenomenon leads to brief analyzes, that the public so far particularly require public places that can be used as a vehicle to make themselves and the family members happy. A nearby space that can be reached economically and can be used in the midst of their busy routine in fulfilling the necessities of life for themselves and their families.

The Revitalization of the park carried out by the City council on the Park was enthusiastically welcomed by the people. The arrangement made to this public space can clearly be seen with the visible improvement. This location is now equipped with various facilities and infrastructure, including children's playgrounds, fitness area, jogging tracks, skateboard tracks, as well as facilities provided for people with disabilities, and others. The trees that are allowed
to grow create a feeling of comfort and give shade the visitors. The bright lights ascatering in
the area eliminate the dim impression of nightlife.

The arrangement of street vendors along one side of the park allows the visitors to enjoy
the atmosphere of the cool site, it also looks like it is getting organized, although some more
improvements are needed here and there.

In a previous study conducted by [1], it was stated that the three aspects of life have the
highest contribution to happiness are work (11.91%), social relations (11.39%) and family
harmony (11.28%). The weakness of this research is that it does not see that there are simple
things that can actually make people happy: it is not only by seeing the financial amount of work
done but also by utilizing public facilities provided by the government. Meanwhile [2] in his
recommendation said that the development of urban forest and green open space must be carried
out by the City Government through increasing the number, legalizing the area (location
designation), and empowering the location of urban forest and green open space through plant
enrichment and enhancing social and aesthetic functions. This of course has not maximized the
use of green open space to increase the level of happiness of its citizens, but it is just wanting to
increase the number green open-space areas.

2 Method

Judging the problems described in the introduction, the writers classified this research as
an associative type, namely a complete description of information about the relationship
between one variable and another symptom (X1 is interactively related to X2 and Y) Sugiono
in [3]. This research has a linear relationship because basically it wants to see the relationship
between the independent variables, namely reading interest and the role of the consultant.

This research was carried out in Pematangsiantar city park and the research targets were
visitors to the park. The object of this research was: "The Impact of city park Revitalization, and
Arrangement of Street Vendors".

According to Sugiyono [4], "population is a generalization area consisting of
objects/subjects that have certain qualities and characteristics that are determined by researchers
to be studied and conclusions to be drawn". The population in this study were all visitors who
had visited the RPTRA, because there was no official data released by the Public Housing and
Settlement Service (PRKP) so it was considered an infinite population. "The table also shows
that if the population is infinite, then the number of sample members for the error is 1% = 664,
5% = 349 and 10% = 272". For the sample in this study the researchers decided to take a sample
of 272 people for an error rate of 10%. The sampling technique uses incidental sampling, which
is a sampling technique based on chance, that is, anyone who accidentally / incidentally meets
the researcher can be used as a sample, if it is considered that the person who happened to be
met is suitable as a data source [4].
3 Results and Discussion

3.1 Presenting the results

3.1.1 Normality test

The data normality test is intended to ensure that the sample data comes from a population with a norm distribution [5]. To see whether the data used in the study have been normally distributed, it can be seen with the one-sample Kolmogorov-Smirnov non-parametric test in the regression test results. This test aims to ascertain whether the residual value can be normally and independently distributed, we can see Table 1.

<table>
<thead>
<tr>
<th>Tabel 1. Normality Test One-Sample Kolmogorov-Smirnov Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unstandardized Residual</td>
</tr>
<tr>
<td>N</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
</tr>
</tbody>
</table>

From Table 1 above, it can be seen that the value belongs to Asymp. Sig (2-tailed) of 0.078, which means greater than 0.05, can be interpreted that the residual value of the model can be declared to have been normally distributed.

3.1.2. The relationship between the city park revitalization and the level of happiness of the citizens

The t-test is conducted to determine the partial effect of each independent variable on the dependent variable whether it has a direct effect by directly comparing the probability value of each variable with a significant level of 0.05. For more details, we can see Table 2.

<table>
<thead>
<tr>
<th>Tabel 2. Coefficientsa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>(Constant)</td>
</tr>
<tr>
<td>Park Revitalization</td>
</tr>
</tbody>
</table>

Source: Data processed in 2020

3.1.3. The relationship of street vendor arrangement to the level of happiness of the citizen

In the Table 3, there is a positive and significant relationship between the arrangement of street vendors and the level of happiness of city residents mentioned in the second hypothesis.
In Table 3., can be seen that the street vendor arrangement has a t-test value of 8.452 which means it is greater than the t-table value of 1.969 or t-count > t-table (8.452 > 1.969), then a significant regression coefficient is determined or HO is rejected. and the second is accepted, namely the variable PKL structuring partially positive and significant effect on the level of happiness of the city residents.

### 3.1.4 The relationship between the city park revitalization and street vendor arrangement on the level of happiness of citizens

To test the hypothesis there is a positive and significant relationship between City Park Revitalization and Street Vendor Arrangement, to the level of happiness of city residents, the independent variable is tested simultaneously on the dependent variable by doing the F test. the magnitude of the F-table value is 3.029 which means F-count > F-table (246.889 > 3.029), so the research hypothesis can simultaneously prove that there is a positive and significant influence between the park Revitalization variable and Street Vendor Arrangement on the happiness level of the City residents.

### 3.2 Discussion

The results of this study prove that the happiness of residents is not only determined by three aspects of life that contribute to people's happiness, namely work, social relations, family harmony [1], but also there are other things that can be prepared by the city government; it is by providing the places to be used for a short recreation with their families in the midst of their being busy such as City Park.

This is in line with what was stated by [6], the city was developed by the Regional Government and managed in partnership with the community for the multi-functional public interest, among others, to fulfill children's rights to grow, to develop and to participate optimally in accordance with human dignity and to provide city infrastructure and facilities as a Child-Friendly City.
Based on the results of this study, if indeed the street vendor arrangement is well organized, a special place is provided, the trading rules are regulated and cleanliness is prioritized, both traders and visitors will feel positive values, both in terms of economy and level of happiness.

In line with what was said by [7] that by providing facilities to street vendors by relocating traders in strategic places, but not disturbing the comfort of visitors, the local state will be able to create a format of cleanliness, beauty and tidiness of the city and the welfare and happiness of traders and visitors can be realized.

The results of this study support previous research conducted by [2]. With this result it can be understood that in fact, citizens in seeking happiness do not have to posses a lot of savings. If the City Government wants to synergize with its staff to provide lots of RPTRAs, then the city community will be able to minimize their level of stress in the midst of the current economic pressure and can enjoy a little happiness by visiting city park with their families without having to have a lot of money.

4 Conclusion

Revitalizing the city park will have a positive and significant effect on the happiness level of Pematangsiantar city residents. If the City Government adds another two or more city park, the city residents will have more than one choices to visit in order to relax their hearts and feelings in order to avoid stress in the midst of the current economic pressure.

The arrangement of street vendors has a positive and significant effect on the level of happiness of city residents. By relocating street vendors to strategic places to street vendors, making rules to prevent the street vendors from moving around, maintaining the cleanliness and tidiness of the park, it is hoped that the distribution and the increase of street vendors’ income will raise, visitors will feel comfortable and have their level of happiness elevated.

The city park revitalization and street vendor arrangement simultaneously have a positive and significant effect on the happiness level of city residents. If the park Revitalization and street vendor Arrangement are carried out jointly, the common goal of the City Government and its citizens to create a city that is clean, green, safe, comfortable and child-friendly will be realized and the level of happiness of the city residents will be increased.

References

Teachers' Well-Being in Teaching Inclusive Elementary School

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Abstract. This study aims to obtain the meaning of Teachers' Well-Being from the phenomenon of regular teachers who teach in an inclusive elementary school. This research uses a Qualitative-Phenomenological approach. The Data Collection Methods are Interviews and Observations through WhatsApp. The subjects of this study are two regular teachers who teach in an inclusive elementary school; in one class that they teach, there are more than two students with special needs. Subject I (EA) is a teacher with a total of 27 years of teaching experience. In 2016, she taught in an inclusive elementary school. At first, she felt tired with the increasing workload and was also surprised by the tantrum behavior of her special needs students. In 2019 she taught grade 1, properly handled five special needs students. Meanwhile, Subject II (WS), who has taught for 16 years in an inclusive elementary school, feels bored at work and wants to have new teaching experiences in other schools. In 2019 she taught grade 6, properly handled 11 special needs students. EA and WS were able to teach well and have an affection for their special needs students because of their experiences and training programs. Both of them have a good relationship with all of the students, fellow teachers, and school principals. Based on the experiences that they have, both of them felt that being an inclusive teacher is a noble job that has an advantage in terms of patience and sincerity.

Keywords: Teachers' well-being, inclusive elementary school, students with special needs

1 Introduction

The right to have education and freedom from discrimination exists in all Indonesian people. Every Indonesian citizen has the right to have freedom to obtain an education, including for children with special needs.

Children with special needs can not only attend special schools, but a new curriculum is now being introduced, which is known as inclusive, and children with special needs can go to school with normal children. The directorate of special education describes inclusive education as an educational program that allows children with special needs to study alongside their peers in the regular school nearest them [1]. Children with special needs and norma children can learn together at these comprehensive schools. They will learn about socialization for children with special needs, and empathy can be taught for normal students.

The government has made the admission of children with special needs compulsory for regular schools in recent years. This is regulated by Regulation No 70 of 2009 Article 4(1) of the Republic of Indonesia Minister of National Education [2]. Regular schools must also consider children with special needs in new student admission and bring up to two children with special needs in one class [3].
On that basis, elementary schools must prepare all aspects of the implementation of inclusion programs. The effectiveness of regular schools in providing inclusive education is evidenced by schools' willingness to provide the best education for all students, with the requisite facilities and human resources. It is just that many regular elementary schools are not ready yet. In terms of teachers, for example, in regular elementary schools, teachers who teach are teachers from graduates of the elementary school teacher education study program who have limited knowledge about children with special needs. Sometimes teachers fail to identify the characteristics of children with special needs and consider them as unintelligent children. This will inevitably affect students with special needs since they do not improve. Regular teachers need to collaborate with special advisory teachers to handle special needs students because advisory teachers have specialized knowledge of children with special needs. Advisory teachers do not attend school every day, however, and do not accompany regular teachers, so teachers must learn the features of each student in their class on their own. Regular teachers who teach in inclusive schools must be provided with the training. The number of students with specific requirements entering elementary schools often strictly enforces school supervision.

This is in line with previous research by Karen Aldrup [4], which shows that teachers believe that more students reporting misbehavior have increased emotional exhaustion (emotional exhaustion). Decrease work enthusiasm, in any case. Students who misbehave have also been associated with decreased teacher-student relationships. Greater emotional exhaustion and decreased enthusiasm for work have been associated with negative relationships between teachers and students. This clearly states that it will impact their well-being if the teacher is dealing with a larger number of students who misbehave.

In this study, researchers took regular teachers who handled children with special needs in their class of more than two children, with minimal special assistance. The more children who have special needs join the class, the further difficult it would be for the teacher to control the classroom situation. The limited knowledge and experience of teachers who teach in elementary schools are not accessible for them to teach. Based on the results of the interviews and observatory reports, regular teachers teaching in inclusive elementary schools are having some difficulties: There is no clear guidance for children with special needs; there are no specific resources for teachers dealing with children with needs; there is no shortage of direction for dealing with children with special needs. There are no special teachers who are willing and capable of supporting regular teachers to educate children with special needs. The teacher must also provide other normal children with the knowledge that they have special friends so that regular students can build a close connection to children with special needs in the classroom.

In addition to the difficulties regular teachers encounter while teaching, it is often important for teachers to recognize the school as an organization. The school is a convenient place to work for teachers. The physical facilities, such as a comfortable teacher room or relationships between fellow teachers, school principals, and parents, are a perfect illustration. This is consistent with research from Smetackova [5], quantitative method with 2,394 teachers as participants. Burnout, Coping Strategies, Teacher Self Efficacy, Social Support, and Job Satisfaction were the variables studied in this research. The outcome is that the teachers have a light burnout rate on average. The strongest burnout comes from a physical scale; teachers more often use positive coping strategies than negative ones; all variables have a vital burnout relationship. If the teacher has strong self-efficacy, feels satisfied, uses positive coping, and avoids using negative coping, burnout will be lower. Some of these factors can make this regular teacher comfortable teaching kids in their class with special needs. However, it seems that this regular teacher does not have this in reality.
It is also necessary to help the principal and colleagues as they all continue to work together to give their students the best education. The atmosphere of a pleasant work environment and supportive colleagues can encourage teachers because there are people who can help them through teaching difficulties. Additional assistance is also very much required, such as teaching at all seminars related to the handling of students with special needs, as regular teachers meet children with special needs with various characteristics every year.

To establish positive relations between teachers and students, regular teachers who teach in inclusive schools must be able to cultivate a convenient atmosphere, not pressured, because class environments can be adequately monitored, which can create a good environment for teachers. There may also be a change in conduct among children with special needs. When the teachers know and are close to the pupils, they can also soothe the tantrums.

Shifting regular schools to inclusive schools can increase the burden on teachers. Teachers who previously only taught normal students had to teach normal students and children with special needs in one class when the school transformed into an inclusion. A regular school offering comprehensive education can only provide part of it to its students with limited schools and resources. Based on the interview results conducted by one of the principal of inclusive elementary schools in Jakarta, he said that only extracurricular activities or activities enhancing the right brain's capabilities would increase students' right-brain with special requirements.

Regarding the magnitude of the roles and responsibilities of a regular teacher who teaches in an inclusive school, of course, it is necessary to pay special attention to her welfare so that the teacher can function adequately in school— Teachers' Well-Being. The well-being of teachers at Collie [6] as the well-being of the teachers in the workplace (in this case, school) due to their interpretation of the experience. Collie also said a variety of factors could enhance or reduce the well-being of school teachers. There are three factors: Workload Well-Being, Organizational Well-Being and Student Interaction Well-Being.

Workload Well-Being, which is interpreted positively by regular teachers, will make them not feel stress that leads to stress. Organizational Well-Being, which is interpreted positively, will make regular teachers feel comfortable teaching in inclusive schools because all school elements support each other. Then for Student Interaction Well-Being, if it is interpreted positively, it will help regular teachers get to know students with special needs well and manage the class better. Apart from these three factors, other external factors such as Teacher Stress, Job Satisfaction, General Well-Being, and Sociodemographic.

Every teacher, of course, will have different meanings for welfare. The meaning of well-being that differs from regular teachers teaching in inclusive elementary schools depends on their life experiences. Therefore, based on the description above, the researcher wants to know about the description and meaning of Welfare or Teachers' Well-Being in regular teachers who teach in inclusive elementary schools.

2 Method

The research method used in this study is a qualitative method with a phenomenological approach. The sampling technique used in this research is Non-probability Sampling in the form of purposive sampling. The research focused on the following: regular teachers who have taught in inclusive elementary schools; in one class they teach, there are more than two students with special needs. In this study, there were two teachers who fit these criteria as research subjects. Data collection techniques used online interviews and observations via WhatsApp application.
in July 2020. The data analyzed started with the conversation type to form a text and then read the entire conversation, mark the statement period, and then code and classify to describe the data obtained. Triangulation method and Source Triangulation have been used to control the validity of the results.

3 Results and Discussion

EA and WS are teachers who teach at an inclusive public elementary school in Jakarta. The school was initially a prototype school for inclusion in the X district in 2006/2007, so special needs of multiple disabilities were taken care of. However, in the last two years, the school has strictly selected the new special needs students. In this case, EA and WS have a new experience, involving normal students and students with special needs, who undergo extra workloads and observe students’ actions with special needs. Instinctively it made EA and WS exhausted and shocked. If EA and WS cannot solve the issues, they can be frustrated and lead to burnout or leave work.

Collie [6] mentions one of them is Workload Well-Being. Workload Well-Being relates to teacher workloads such as teacher administrative duties, meetings, and activities after working hours. EA and WS experience additional workloads such as adjusting regular learning and children with special needs, adjusting the assessment system, and providing additional learning such as learning to read for underprivileged students. Collie [6] mentions that one of them is Workload Well-Being. Workload Well-Being relates to teacher workloads, such as teacher administrative duties, meetings, and activities after working hours. EA and WS experience additional workloads such as adjusting regular learning and children with special needs, adjusting the assessment system, and providing additional learning such as learning to read for underprivileged students.

In this case, there is a slight difference in well-being felt by EA and WS due to their teaching experience at the inclusive school. One of the critical factors in Collie's study in 2015 is the teacher's teaching experience. Subject I (EA) was surprised by the increase in the workload as she did not have 23 years of experience in private elementary schools in inclusive schools. In 2016, when she started teaching in inclusive elementary schools and taught nine special needs students with different disabilities, EA was shocked by the situation. Although EA had previously been told that she would teach regular students and students with special needs in one class, she did not expect that the number of students with special needs would be large enough. EA does not mind increasing her workload, she works sincerely and patiently. EA is still adapting to work as a teacher in inclusive elementary schools due to her only four years of experience.

Subject II (WS) has been teaching in the school for 16 years, had no idea that she would teach more students more inclusively. She does not really worry about the rise in workload; sometimes, she feels overwhelmed by the situation. She needed a new experience and a new environment for teaching.

In addition to Workload Well-Being, Collie also mentioned Student Interaction Well-Being related to teacher interactions with students and how teachers perceive student behavior and motivation when studying. The difference between EA and WS in this regard is related to the classes they teach. Currently, EA teaches grade 1, and WS teaches grade 6, of course, the student's behavior will be different. EA explained that class 1, where she taught her students, was still good and even though fighting did not make the class chaotic. Meanwhile, in grade 6,
where WS teaches, there are ABK students who may have gone into puberty because one of them is 16 years old, so that their behavior must be paid attention to properly by WS so that unpleasant events do not occur.

For regular students to communicate with children with special needs, it is just that for 1st grade, students must acquire a better understanding of their friends with special needs, while WS gives students less awareness as they have experienced in 1st to 5th graders.

Collie refers to the organizational well-being in addition to workload well-being and student interaction well-being. Organized well-being is related to school teachers' perception as entities, providing insights into teaching and teaching leadership in schools and culture. This school's working atmosphere is solid in the past year, with teachers still talking about classroom activities. Moreover, all teachers are involved in the decision-making. SS as the Principal, who has only served for one year, positions himself as a colleague so that teachers can freely share their complaints. EA and WS feel comfortable with the relationships they have with the principal and her fellow teachers.

According to Collie, the well-being of regular teachers who teach in inclusive schools can also be seen from their job satisfaction so that they have a complementary view of their work, sociodemographics, and the well-being felt by teachers in general. Between EA and WS, there are slight differences in some of these matters. First, in terms of job satisfaction, EA is satisfied with her job and happy with her current job, while WS is still not satisfied; she wants to experience another teaching experience.

There is a gap of about ten years between them, as seen in terms of both subjects' age. EA is over ten years old. Besides age, teaching is another distinction in which EA has taught regular elementary schools for 23 years, while WS has never taught regular elementary schools.

The correlation between the two is evident from their view on inclusive teachers' occupation, even though their purpose is more or less identical in teaching in elementary schools for 12 years. Both EA and WS recognize the inclusive teaching career as a noble mission, as it can prepare students to succeed. Besides, an inclusion teacher has multiple patience and sincerity. Both are happy with their profession as a teacher. EA and WS also give great praise to the parents of children with special needs because they find it challenging to teach children with special needs.

Then, EA and WS perceive their lives nicely in terms of general well-being. Regardless of their work and life's difficulties, EA and WS are always confident and always do their best. The findings are being sent to God Almighty after the best efforts have been made. For what they have now, there is a feeling of appreciation.

There are other findings, namely the gratitude of regular teachers who teach at elementary schools, that the author observed in this research. This gratitude emerges from the significance of the teaching experience of the subject. Those who were first exhausted in teaching encountered sympathy and affection until they were eventually pleased to teach children special needs.

4 Conclusion

The phenomenon of regular teachers teaching in inclusive elementary schools involves the workload, their interactions with the students, and their close relationship with the principal and their colleagues. If the teacher feels the Well-Being, it can bring positive meaning to his work.
Based on research conducted at one of the Public Inclusive Elementary Schools in Jakarta, it was found that EA has a pretty good Well-Being with four years of experience teaching in inclusive elementary schools. Her experience teaching in inclusive elementary schools has made EA a more patient and sincere teacher, carries out her job pleasantly, and have a positive outlook regarding her work. Meanwhile, WS, who has taught in inclusive elementary schools for 16 years, feels bored. She wants to have a new experience teaching in another school. She also revealed that teaching in inclusive elementary schools is complicated and demanding. Both WS and EA have complimentary views regarding their work as teachers, namely being more patient, empathetic, and sincere. There is a sense of gratitude or gratitude that is felt based on their experiences while teaching. Apart from their jobs as teachers, EA and WS have an optimistic attitude in their lives to stay physically and psychologically healthy, even though for women, there are monthly things that make their health a little disturbed.

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References

Legal Protection of Work Agreement Limited Duration between Employee and Contractor in Oil and Gas Company and the Ideal Roles of CSR Regarding to Positive Regulation in Indonesia

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Abstract. Legal Writing aims to answer the issues related to Manpower System especially toward Outsourcing Employees’ Agreement in oil and gas company. The method which was used in this Scholar Paper was Qualitative Research Method, a kind of Normative Legal Writing which was based on prescriptive library research concerning study of positive law. For the Primary Legal Materials, Scholar used references such as Act Number 13 Year 2003 regarding to Manpower, Legal protections of working, etc. And for Secondary Legal Material, Scholar uses books, journals, papers, newspapers, and report of legal writing. Then, for Tertiary Legal Materials, Scholar uses references such as legal dictionary, dictionary Indonesian-English dictionary and vice versa, etc. In the end of Legal Writing, Scholar concludes that: (1) there are some weaknesses that have found on Work Agreement Limited Duration. Those weaknesses have infringed Positive Regulation in Indonesia. (2) outsourcing Employees do not get totally preventive protection toward themselves because they could not access the right and for their families. Scholar recommends that the supervision from Governmental Officer has to be strengthened up to avoid many forms of infringements that would be happened in the next time.

Keywords: Work agreement, preventive protection, roles of CSR

1 Introduction

One of among the purposes of the establishment of Indonesia state government is to protect all of the people in Indonesia, respect toward the bloodshed of combatant, and achieve the general welfare, as mandated by Constitution of Republic of Indonesia of 1945. Therefore, Indonesia is obliged to provide protection for all citizens without exceptions. The essence of citizens protection is not only toward security, but also the legal protection of manpower in Indonesia (outsourcing and permanent manpower).

"Recently, the Company has focused on things to speed up operational processes, such as operations that require logistics to support acceleration, flexibility, price, and accuracy; A reliable information management system capable of presenting up-to-date data among divisions, production, warehousing, transportation, and customer service, as well as transactions that use
less paper (electronic data transactions), interconnection among data, system analysis, and tracking systems. 

Outsourcing is not about contract only, but more than of that, Maurice F. Greaver defined outsourcing as [2]: “Outsourcing is the act of transferring some of a company’s recurring internal activities and decision rights to outside provider, as set forth in a contract. Because the activities are recurring on contract is used, outsourcing goes beyond the use of consultants. As a matter of practice, not only are the activities transferred, but also the factors of production and decision rights often are too. Factors of production are the resources that make the activities occur and include people, facilities, equipment, technology, and other assets. Decision rights are the responsibilities for making decisions over certain elements of the activities transferred.”

Author has concluded toward outsourcing definition. Author argues that outsourcing can also be defined as transferring or delegating people or manpower from companies which are given to the goods and services provider institution toward operational services and administration management in order to maximize the productivity of companies, with the terms and condition as stipulated on agreement which has been agreed by all parties.

Outsourcing is a process to transfer liability or responsibility of manpower from holding or sub holding company to the other companies. The legality of the goods or service provider company could be acted as vendor or another institution which is depended on the agreement when it was established. Outsourcing System rules on Act Number 13 of 2003 regarding to Manpower, employees as supporting element (non-core business unit). Moreover in business system, there are some parties who has bound related to that regulation such as Government, Employer, and Employee.

But in fact, the capacities between them are unequal bargaining power. The employers usually have greatest bargaining power of them, followed by the Government, then the employees. But normally, the government should control and restrain the employers and employees. On business process, generally parties who are getting careless from our government are employees, because employees are used as a production factor only by employers who are not fully considered toward their welfare. It is seen when the employees are signing agreement, employees are faced by standard agreement which have been made by employers. Employees are given two opportunities only to decide, approving the contract or leaving the job offer. Outsourcing (Manpower Transferring) on Employment Law in Indonesia interpreted as chartering and the provision of employee services.

The legal arrangement related to outsourcing in Indonesia is regulated on Act Number 13 of 2003 regarding to Manpower (Article 64, 65 and 66) and Decree of the Minister of Manpower and Transmigration of the Republic of Indonesia Number Kep.101/Men/VI/2004 of 2004 regarding to Procedures for Corporate Agreements of Employee Service Provider/Manpower and Decree of the Minister of Manpower and Transmigration of the Republic of Indonesia Number 220/Men/X/2004 regarding to terms of the levering as work implementation to the other companies.

Author argues that there’s subject who will be concerned toward these problems and it is Corporate Social Responsibility (CSR). The implementation of CSR is not only the logical consequences of the absence of good corporate image in company but also play a role in improved performances and resources of companies are getting better than ever. CSR implementation could be realized in the social role of the company's internal environmental. In this case it would be well-being of its employees. The implementation of CSR is divided into internal (to the environment within the company) and external (to the public). Therefore, Author will present analyses related to outsourcing system, especially regarding to Working Agreement for Specified Period.
2 Issues

To explore furthermore of the legal protection toward outsourcing system on Working Agreement for Specified Period, Author have some questions to be analyzed in this paper as follows:
- What is the critical or analyses toward Working Agreement for Limited Period?
- Has the Working Agreement for Limited Period given Preventive Protection toward Outsourcing Employees? And How is the role of Corporate Social Responsibility to protect the Employees’ right?

3 Methods

This study uses Normative Legal Research. Normative Legal Research is a scientific procedure to find the truth based on the logic of the normative legal scientific. The scientific logic of normative Legal Research is developed by the scientific concentrate and ways of thinking of normative jurisprudence and their objects are regulation themselves. "Referring to Soerjono Soekanto's statement which states that legal writing is carried out by analyzing literature or secondary data which is called normative legal writing or literary law writing."[3]

On this writing study data is derived from secondary data. Secondary data is type of data that is not derived directly from the source, e.g. reading materials such as books, papers, or writing report, documents, regulations, jurisdiction, and other statistical data.

The legal materials, as objects of literature writing are divided into 3 (three) kinds of primary legal materials, secondary legal materials, tertiary legal materials. The legal materials of this writing are used:

a. Primary Legal Materials which the characteristic is bound by the writing, i.e.:
   - Constitution of Republic of Indonesia of 1945;
   - Civil Code;
   - Act Number 13 of 2003 regarding to Manpower;
   - Act Number 11 of 2005 regarding to the validity of International Covenant on Economic, Social, and Cultural Rights, Legal protections of work;
   - Government Regulation of Indonesia Number 47 of 2012 regarding to Social and Environmental Responsibility of Company.
   - etc

b. Secondary Legal Materials are the materials which explain about the primary legal materials such as books, journals, papers, newspapers, and report of legal research, and all varieties of written material on the internet website regarding to legal protection in Indonesia and the relationship toward positive regulation.

c. Tertiary Legal Materials is a material writing which provides references and explanations of the primary and secondary legal materials, such as legal dictionary, dictionary Indonesian-English dictionary and vice versa, etc.

On this writing, the tools which are used such as literatures or books (such as Strategic Outsourcing a Structured Approach to Outsourcing Decisions and Initiatives, American Management Association, USA which was composed by Maurice F. Greaver, Hukum Perburuhan di Indonesia which was composed by Abdul Rachmad Budiono, etc), regulations (such as Act Number 13 of 2003 regarding to Manpower, Decree of Minister of Manpower and Transmigration of the Republic of Indonesia Number PER-05/MEN/1995 regarding to Working
4 Results and Analysis

4.1 The critical or analyses related to working agreement for limited period toward positive regulation

On this chance, Author would like to show some analyses or critical toward the Agreement Limited Duration. These analyses or critical would give us understanding each bargaining position of the parties. Firstly Author would like to analyze related to Probation period. As stated on Act Number 13 of 2003 regarding to Manpower Article 58 Paragraph 1 and 2 states that:

(1) Working agreements for specific period cannot require a probation period.
(2) In the case of the probation period being required in the working agreements as meant in paragraph 1, the required probation period shall be null by law.

But in the other hand, as stated on Working Agreement for Specified Period, there is a probation period as long as 3 months (commencement date July, 18th 2011 up to October 31st 2011). It means that the Working Agreement for Specified Period was infringing the Act Number 13 of 2003 regarding to Manpower Article 58 Paragraph 1 and 2.

Then, Author would like to analyze regarding to categorization or characteristic of working.

As stated on Act Number 13 of 2003 regarding to Manpower Article 59 Paragraph 1 and 2 states that:

4.1.1 Working agreements for a specific period only can be made for certain jobs which according to kind and characteristic or activities will be completed in a specified period, namely:
- Once completed or provisional jobs;
- Jobs expected to complete not too long and 3 (three) years at the maximum;
- Seasonal jobs; or
- Jobs related to new products, activities or additional products, which are still in trial run or exploration.

4.1.2 Working agreements for a specified period cannot be applied to regular jobs

A job may be regarded as temporary if it is understood by both of them that the termination of the job is determined by objective conditions such as reaching a certain date, completion of an assignment or return of another employee who has been temporarily replaced [12]. In the case of a work contract of limited duration the condition for its termination is generally mentioned in the contract. To be included in these groups are:

a. People with a seasonal job,
b. People who is engaged by an employment agency or business and hired out to a third party for the carrying out of a “work mission” (unless there is a work contract of unlimited duration with the employment agency or business),
c. People with specific training contracts.
But according to Working Agreement for Specified Period, Author was placed as Outsourcing Legal Officer which would be focus on making contract (coordination among divisions), include of analyzing the tender steps. This job would be continuously needed because without Legal Officer, company’s operational would not be protected by law and will be disturbed. Legal Officer is one of core subjects which completely important to advise company in order to avoid the Law infringement so that the operational of company would be run well. Moreover oil and gas industry which is sensitive because it dominates the life of many people. So that, it is not properly if Legal Officer was placed as outsourcing employee. Because that position is one of strategic position to run the operation of company.

On this chance, Author also would like to analyze furthermore regarding to working hours. According to Act Number 13 of 2003 regarding to Manpower Article 77 Paragraph 2 states that the working hour as meant in paragraph 1 shall include:

a. 7 (seven) hours on one day and 40 (forty) hours on one week in the case of the working period being 6 (six) days on one week;

b. 8 (eight) hours on one day and 40 (forty) hours on one week in the case of the working periods being 5 (five) days on one week.

It is accordance with Working Agreement for Specified Period on Article 3

a. Monday – Thursday = 07.30-12.30 and 14.30-17.30

b. Friday = 07.30-11.30 and 13.30-17.30

But the implementation may be is not suitable with Work Agreement. As we know together, Oil and Gas Company has a systematic operational. It means the operational of working hours of each employees might be hectic and excessive of working hours as stated on Working Agreement for Specified Period. Employee might arrive in the office at 07.00 a.m. and used their breaking hours for working, and were going home around 07.00-08.00 p.m. As stated on Working Agreement for Specified Period, Employee did not get any extra bonus toward overtime of working because the salary system was all in. All of the transportations, consumption, over time budget, etc has been included in salary. And it is possible to head officer suggested Employee to come in the weekend for working again. It means that employee would not get the weekend if it is implemented.

According to Author’s conclusion, overtime could be given for emergency condition only. It could be held if overtime is absolutely needed to support company’s operational. But when Author was working at Oil and Gas Company, Employees might have overtime to accomplish their duties which was given to them. Whereas it was not categorized as emergency duties.

Furthermore, Author would like to analyze related to Work Training. Author find on Act Number 13 of 2003 regarding to Manpower Article 9 states that “Vocational training shall be organized and directed to provide, enhance and develop work competence for driving up capability, productivity and welfare.”

But in fact of this regulation is not in accordance with the Working Agreement for Specified Period. On probation test, Employees did not get special training as a preparation to develop and improve employee’s capability. Employees directly worked at Oil and Gas Company after approving in that company as Employees’ job descriptions and directly supervised by head of department.

Next, Author would like to analyze regarding to all-in system salary. According to it, it is not specific regulated by positive regulation in Indonesia. There some doctrines which was stated that all-in system is implemented to make simply documentation (we do not have to make overtime documents, extra bonus documents, etc) because company has estimated load factor of employees which wouldn’t be added or decreased.
Like Author said before, overtime might be happened for every employee when they were working. As we know together that Oil and Gas Company has a systematic operational and it is effected to industry operational. Every employee might get so many tasks that they had to accomplish as soon as possible (was limited by deadline), but they did not get extra bonus although they had overtime working (as stated on Working Agreement Limited Duration, the working system was all-in salary system). Therefore, it is not accordance with Act Number 13 of 2003 regarding to Manpower Article 78 Paragraph 2.

If the situations like these, employee could not access their right to enhance their welfare life, moreover their families. Besides there is not provided extra bonus for overtime working, it is not also stated related to facilities would be given to the employee’s family like their spouse (wife or husband), child or children, etc. And it is not also stated on Working Agreement for Specified Period related to covering of insurance for family members like wife, child or children.

4.2 Preventive protection and ideal roles of corporate social responsibility to handle the outsourcing employees

After explanation above, Author would like conclude that Working Agreement for Specified Period does not completely fulfill Preventive Legal Protection as stated on Act Number 11 of 2005 regarding to the validity of International Covenant on Economic, Social, and Cultural Rights, especially toward Technical and Economical Protection. Author says like that because there are so many unsynchronized Working Agreement for Specified Period toward that regulation.

Like Act Number 11 of 2005 regarding to the validity of International Covenant on Economic, Social, and Cultural Rights Article 7 alphabet b about Technical Protection which is written every country that has ratified the covenant has to confess everyone’s right to enjoy equitable and fairness of working.

Although Author thought that equitable and fairness could not be accessed because Author was placed as Outsourcing Legal Officer which would be focus on making contract (coordination among divisions), include of analyzing the tender steps. This job would be continuously needed because without Legal Officer, company’s operational would not be protected by law and will be disturbed. Legal Officer is one of core subjects which completely important to advise company in order to avoid the Law infringement so that the operational of company would be run well. More over Oil and Gas Company has a systematic operational which is sensitive because it dominates the life of many people. So that, it is not properly if Legal Officer was placed as outsourcing employee but placed as permanent employee.

Besides that, Author feels that Working Agreement for Specified Period is not equitable and fair enough because that contract has standardized by company. The forming of agreement was made by one party only (company). Employees could negotiate salary and supporting facilities only. The whole of substances of agreement has been made in standard contract. Employees get two choices only. “take it or leave it”. Therefore it is infringe the Civil Code Article 1320 and Act Number 13 of 2003 regarding to Manpower Article 52 Paragraph 1 regarding to the consensus of both of parties.

Then Author would like to analyze another perspective of preventive legal protection toward the working system. Author still believes that the working system does not fulfill Preventive Legal Protection because the supervision of government institution like Manpower and Transmigration Government Officer is still weak. It was proved by there are so many infringements that was found on Working Agreement for Specified Period (like Author has
stated above). This Working Agreement for Specified Period is not accordance with Positive Regulation in Indonesia especially Act Number 13 of 2003 regarding to Manpower Article.

If the supervision of Manpower and Transmigration Government Institution is proper enough, Author believe that Government Officer will take decisive action by giving the warning to user company or punishment (if it is possible). It is depended to the categorization of infringement that has been done by user company.

After talking about Preventive Protection, Author would like to explain about Corporate Social Responsibility. As we know together, Corporate Social Responsibility has two main roles in company such internal role and external role. For internal role, Corporate Social Responsibility has duty to enhance and care about the welfare of employees, include of the salary, extra bonus when having overtime. And for external role, Corporate Social Responsibility obliges to care toward the social environmental around that company such as build a mosque, church, bridge, etc. But right now, Author want to talk about internal role of Corporate Social Responsibility only.

Corporate Social Responsibility is the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of work life of the workforce’s employees and their families as well as of the local community and society at large. Corporate Social Responsibility centers on the relationship between business and society and how businesses behave towards their key stakeholders such as employees, customers, investors, suppliers, communities, and special interest groups. It describes what new Corporate Social Responsibility agenda as follows: It identifies a new and enlarged responsibility for businesses today in contributing to both the well-being of society in general and the integrity of the natural environment.

But, Author thought that Corporate Social Responsibility in Oil and Gas Company does not fulfill the economy responsibility because does not care toward the welfare of outsourcing employees. Outsourcing employees who have overtime working do not get more money. Because the salary system is all in system. Everything that Employees will do, they will get same nominal of salary in every month. Author is reminded by the statement of Janet Blake[5] who is stated that:

“We know, because we have the evidence, that employees who are proud of the CSR achievements [of BT] and feel involved in those CSR achievements and see that it mirrors their own personal responsibility are more motivated, more effective and they’re more feeling like driving the business further, more productive and motivated as a workforce. I think secondarily, employees take a very important message out to our customers, because if they are motivated and understand what a good responsible business looks like, they will embed it into how they do their job, and that means that they will be seeking about CSR as they make decisions about customers and that in turn brings a better benefit to our customers.”

So that if the reality like this, Outsourcing employees who have all-in salary system, feel that Corporate Social Responsibility in Oil and Gas Company is failed because could not drive the business further, more productive, and motivated all of employees as a workforce. It might be the Outsourcing employees who have done all of their obligation and taken overtime to accomplish their duties, would not be motivated and productive again because they do not get extra salary toward their overtime working.

After explanation above, Author concludes that Corporate Social Responsibility at Oil and Gas Company does not fulfill the ideal roles to enhance the welfare of Outsourcing Employees and care about the welfare and rights of them. It is proved when Outsourcing Employees who
have overtime working, they do not get more money as extra bonus and does not give training to new Outsourcing Employees who would be worked in that company.

5 Conclusion and Recommendation

5.1 Conclusion

After explanation above, in the end Author would like to conclude some points related to the contents, such as there are some weaknesses that have found on Working Agreement for Limited Period. Those weaknesses have infringed Positive Regulation in Indonesia, such as the position of Legal Officer as Outsourcing Employee, does not provide training program, etc.

Outsourcing Employees do not get totally preventive protection toward themselves because they could not access the right and for their families, supervision from governmental officer is still weakness, and the protection is not given by Corporate Social Responsibility in that company. It is proved that Corporate Social does not also fulfill the internal roles to enhance the welfare of Outsourcing Employees and care toward rights of them.

5.2 Recommendation

From the issues above, Author would like to give some recommendation as solution, such as:

− The substantial of Working Agreement for Specified Period should be formulated again especially toward the protection of Outsourcing Employee’s rights which need to be covered up. The outsourcing employee must has the equal bargaining position to discuss the contents of Working Agreement for Specified Period.
− The supervision from Governmental Officer has to be strengthened up to avoid many forms of infringements that would be happened in the next time. Because it is absolutely needed as a mediator to control employer’s position who sometimes does arbitrary actions toward the employees.

References

[8] President Instruction Number 3 of 2006 regarding to Investment Climate Policy Packaging.
[9] Decree of Minister of Manpower and Transmigration of the Republic of Indonesia Number PER-05/MEN/1995 regarding to Working Agreement for Specified Period in Oil and Gas company.

[11] Decree of the Minister of Manpower and Transmigration of the Republic of Indonesia Number 220/Men/X/2004 regarding to terms of the levering as work implementation to the other companies.

Economic Growth and Deforestation: a Study of Changes in Land Coverage in West Nusa Tenggara Province

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Abstract. In every region that is transitioning from agrarian economic activity to industrial economic activity, it is always faced with deforestation or changes in forest cover, including in West Nusa Tenggara. This study aims to determine the effect of economic growth and population on land cover change and deforestation in West Nusa Tenggara Province. The research was conducted in March - August 2020, which consisted of activities to determine land cover changes through processing satellite image data, which was matched with data from BPS. Data on economic growth and population are obtained from BPS. Modeling with multiple linear regression. The results of regression modeling show that economic growth and population growth significantly increase land for building and reduce forest land cover.

Keywords: Economic growth, deforestation, poverty, land cover

1 Introduction

Population and development are two things that cannot be separated, because development cannot occur without residents, nor will the population prosper without development. Every year about 80 million new residents are born and increase the number of the world's population which now numbered billions, most of the 97% population increase comes from third world countries. The world population is expected to increase to 8.1 Trillion in 2025 and 9.6 Trillion in 2050 [1]. The increase in population and increased socio-economic activities resulted in increased dependence on forests and land [2].

An economy can produce goods and services, so a definite production process is needed to use and process natural resources by using capital tools, and at a certain level of technology, as well as experts, certain humans (natural resource base of development in natural resource processing) or often called as the main production factor. By increasing production, it will indirectly encourage consumption in the aggregate. The continuous increase in consumption and production will trigger economic growth that will run in the long term [3].

The socio-economic conditions of the community that affect the conversion of community forests to the use of shifting cultivation. Farmers' income from community forestry businesses and income from former community forest lands that were used as shifting cultivation activities. The lower the income from community forestry businesses and the higher the income from shifting cultivation, the higher the rate of community forest conversion. In addition to economic
factors that affect farmers converting community forests, it is also influenced by the area of land they control, and the number of people working in the sector [4].

Forest and land resources are resources that become a mainstay in people's socio-economic activities, especially in developing countries. Therefore, in the last decade developing countries have become the focus of developed countries in terms of changes in environmental quality related to changes in function and degradation of forests and land. “Correct” management will have broad and long-term impacts, and vice versa, errors in bio-physical forest management can lead to land degradation, and even have broad, social, economic, and even political impacts.

Forest cover in all regions has a tendency to decline from year to year. After the Reformation, in 2000 natural forest cover was 106.4 million hectares, then the remaining forest declined during the second period of the SBY administration in 2009 with an area of 93 million hectares. As of 2017, during the Jokowi administration, the remaining natural forest cover was 82.8 million hectares or around 43 percent of Indonesia's land area [5].

Indonesia's deforestation in 2017-2018 is 0.44 million ha. Based on forest type, the highest deforestation occurred in secondary forest, amounting to 0.31 million ha. Deforestation in the forest area was 0.22 million ha (50.8%), while outside the forest area (APL) was 0.22 million ha (49.2%). Based on forest type, the highest natural forest deforestation occurred in secondary forest, amounting to 0.31 million ha. Deforestation of Natural Forest in the forest area was 0.20 million ha (52.5%), while outside the forest area (APL) was 0.18 million ha (47.5%).

Deforestation per forest area function in the HK area of 29.0 thousand ha (6.6%); HL of 39.5 thousand ha (9.0%); Production Forest of 154.8 thousand ha (35.2%), consisting of: HPT of 41.6 thousand ha (9.5%); HP of 85.6 thousand ha (19.5%); HPK of 27.6 thousand ha (6.3%).

Deforestation outside forest areas or APL is 216.1 thousand ha (49.2%) [6].

Deforestation events that occur in tropical areas to become agricultural land are events that occur as changes in land use that have an impact on biodiversity, soil, degradation and the ability of the earth to support human needs (Lambin et al., 2003). This change will change the existing habitat around deforested land. At first the forest was in intact condition but in line with economic growth, a source of funding was needed by exploiting natural resources, especially forests [7].

The pattern of changes in forest cover in Indonesia is closely related to the growth rate of social and economic development. The higher the rate of socio-economic growth will encourage a decrease in forest cover [7]. This study aims to determine the effect of economic growth and population on deforestation in Nusa Tenggara Barat Province.

### 2 Method

In general, this research is descriptive analysis. This study uses a secondary database for analysis and is assisted by mapping techniques with Geographic Information Systems (GIS). Research was conducted for 6 months from March - August 2020 with the location under study, namely West Nusa Tenggara Province. The tools and materials used are map processing tools, Landsat 8 image data for 2013 - 2019. The making of spatial database units is expected to be able to collect and manage various data related to regional development. The data used are secondary data from 2013 to 2019 periodic observation data based on constant 2010 prices obtained from the Central Statistics Agency (BPS), the Department of Agriculture, and the Regional Development Planning Agency (BAPPEDA) of West Nusa Tenggara Province.
The research was carried out starting with image pre-processing (image improvement, composite image creation, geometric correction, rectification, radiometric correction, and mosaic image creation), digitizing and interpreting Landsat 8 satellite imagery then spatial analysis with a digitization overlay of the obtained land cover and calculating the rate change in rate of change in land cover to calculate the rate of deforestation. To determine the effect of economic growth and population on deforestation in West Nusa Tenggara Province, multiple linear regression is used. The models to be estimated are:

\[ Y = a + b_1X_1 + b_2X_2 \]

Where: \( Y \) = Area of deforestation (hectares)

\( X \) = namely \( X_1 \): economic growth (%), \( X_2 \): population (people)

3 Results and Discussion

3.1 Condition of West Nusa Tenggara Province

The area of NTB Province reaches 20,164.84 km² and consists of two main islands, namely Lombok Island and Sumbawa Island, as well as hundreds of small islands. Of the 421 islands in NTB, only 40 islands are inhabited by residents while the rest are uninhabited islands. West Nusa Tenggara (NTB) province is located at 115°46’ - 119°5’ east longitude and 8°10’ - 9°5’ south latitude.

Population is the subject and object of development, so information on the quantity and quality of the population itself is needed in development. The total population of NTB Province in 2019 was 5.07 million people. This number increased by 59,416 people compared to 2018. The population distribution in NTB Province is relatively uneven, this can be seen from the very varied population density.

One of the economic indicators that reflects the productivity of a region's economy is Gross Regional Domestic Product (GRDP). The NTB Province GRDP in 2019 reached IDR 132.67 trillion with economic growth contracting by 4.01 percent. Although the value of GRDP in NTB has continued to increase since 2012, its economic growth has fluctuated greatly. In 2015, NTB's economic growth reached its highest point of 21.76 percent. Then it fell quite drastically in 2016 to 5.82 percent. Even in 2018 the economic growth of NTB contracted by 4.56 percent.

3.2 Forest conditions and deforestation in West Nusa Tenggara

Forest Condition in 2014 The total forest area in 2014 was 832,245.30 Ha from 1,970,900 Ha, the total area of West Nusa Tenggara Province consisting of Lombok Island, Sumbawa Island and other small islands. Meanwhile, the forest condition in 2015 was 780,473.68 Ha. There was a reduction in forest class this year. Forest conditions in 2016 covering an area of 752,649.03 Ha, have decreased again in the forest class in West Nusa Tenggara Province. Forest conditions in 2017 covering an area of 743,521.53 hectares, again experienced a decline in forest class. Forest land cover in 2018 is an area of 735,606.45 ha. The condition of the forest in 2019 was 729,974.34 Ha and experienced a decrease in the total forest area, although the increase was in plantation forest and secondary forest. For more details, see Table 1, while the distribution of forest and deforestation can be seen in Figure 1.
Table 1. Forest Conditions in West Nusa Tenggara Province, 2013 – 2019

<table>
<thead>
<tr>
<th>No</th>
<th>Forest Class</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Primary Forest (Hp)</td>
<td>503,087.71</td>
<td>460,906.06</td>
<td>422,261.15</td>
<td>402,515.95</td>
<td>385,190.81</td>
<td>360,394.21</td>
<td>337,193.89</td>
</tr>
<tr>
<td>2</td>
<td>Secondary Forest (Hs)</td>
<td>369,922.92</td>
<td>356,885.60</td>
<td>344,307.76</td>
<td>338,192.53</td>
<td>347,436.11</td>
<td>363,836.07</td>
<td>381,010.15</td>
</tr>
<tr>
<td>3</td>
<td>Primary Mangrove Forest (Hmp)</td>
<td>5,449.46</td>
<td>4,858.24</td>
<td>4,331.16</td>
<td>3,590.49</td>
<td>2,328.83</td>
<td>2,083.52</td>
<td>1,864.05</td>
</tr>
<tr>
<td>4</td>
<td>Secondary Mangrove Forest (Hms)</td>
<td>6,973.56</td>
<td>6,969.64</td>
<td>6,965.72</td>
<td>6,524.96</td>
<td>6,630.05</td>
<td>6,998.92</td>
<td>7,188.31</td>
</tr>
<tr>
<td>5</td>
<td>Plantation Forest (Ht)</td>
<td>2,643.75</td>
<td>2,625.76</td>
<td>2,607.89</td>
<td>1,825.10</td>
<td>1,935.73</td>
<td>2,293.73</td>
<td>2,717.94</td>
</tr>
<tr>
<td></td>
<td>Total Forest Area</td>
<td>887,451.12</td>
<td>832,245.30</td>
<td>780,473.68</td>
<td>752,649.03</td>
<td>743,521.53</td>
<td>735,606.45</td>
<td>729,974.34</td>
</tr>
</tbody>
</table>

Forest conditions in 2019 consisted of primary forest (Hp) covering an area of 337,193.89 ha (46.19%), secondary forest (Hs) covering an area of 381,010.15 ha (52.20%), primary mangrove forest (Hmp) covering an area of 1,864.05 ha (0.26%), secondary mangrove forest (Hms) 7,188.31 ha (0.96%), plantation forest (Ht) 2,717.94 ha (0.37%). Forests in West Nusa Tenggara Province actually fluctuated in area, especially in secondary forests. In contrast to primary forest, there has been a continuous decline until 2018. Changes in forest conditions are influenced by human activities to clear land as needed. For example, clearing land to build houses, opening agricultural areas, making mining for economic purposes. The rate of change in yield forest in the period 2014 to 2019 shows that the average area per year that is easily deforested occurs in secondary forests. During this period there was not only deforestation but also degradation and reforestation. In 2014 to 2018 the average rate of forest change was 11,447 hectares / year. In addition, the deforestation rate according to data from the Ministry of Environment and Forestry in the 2016-2017 period in the Provinces of Nusa Tenggara and Bali covering an area of 8,600 hectares shows not much difference from the results of this study covering an area of 8,424 hectares which only occurred in West Nusa Tenggara Province.

Fig. 1. Changes in Land Cover Result of Interpretation of Landsat 8 Images in West Nusa Tenggara Province
Deforestation occurs in primary forest class and secondary forest turns into shrubs, open land, agriculture and mining. Deforestation does not only occur in primary forest and secondary forest, it also occurs in the class of plantations turned into agriculture.

3.3. Relationship of economic growth and population to deforestation

This study will look at the influence of factors on the extent of deforestation (Y). The effect of the independent variables consisting of economic growth (X1) and population (X2) on the area of deforestation (Y), then there are 2 equation models, but the second equation model can be used. This can be seen in Table 2.

This study will look at the influence of factors on the extent of deforestation (Y). The effect of the independent variables consisting of economic growth (X1) and population (X2) on the area of deforestation (Y), then there are 2 equation models, but the second equation model can be used. This can be seen in Table 2.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>2.712,228,24</td>
<td>257.796,41</td>
<td>10,521</td>
</tr>
<tr>
<td></td>
<td>Population</td>
<td>-0,39</td>
<td>0,05</td>
<td>-1,007</td>
</tr>
<tr>
<td></td>
<td>economic growth (%)</td>
<td>-946,08</td>
<td>970,75</td>
<td>-1,30</td>
</tr>
<tr>
<td>2</td>
<td>(Constant)</td>
<td>2.617,940,49</td>
<td>237.751,89</td>
<td>11,011</td>
</tr>
<tr>
<td></td>
<td>Population</td>
<td>-0,38</td>
<td>0,05</td>
<td>-.961</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Total Forest

Thus it can be explained as follows:

- From the regression, it turns out that the area of deforestation (Y) is very significantly influenced by the population (X2), while other factors do not significantly affect the area of deforestation (Y). From the measurement of the multiple regression coefficient, it can be explained that the regression equation is:
  \[ Y1 = -2.617,940.49 + 0.38 X1 \]
- The results of the measurement of the correlation coefficient for the independent variable X together with the dependent variable Y show the number \( R = 0.96 \). The results of the measurement of the coefficient of determination of the independent variable with the dependent variable Y show the number \( r^2 = 96.3\% \) and epsilon 3.7%.
- The effect of population (X1) on the area of deforestation (Y) is very significant, meaning that every increase in the population of one level (person) will increase the area of deforestation by 0.38 hectares per person.

From the measurement results of the correlation coefficient, it can be seen that it turns out that among the population (X1), in Cibinong District there is a significant (significant) correlation. From the coefficient of determination, it can be seen that the population (X1) in Cibinong District is greater when compared to the contribution of epsilon factors to forest area (Y) in Cibinong District.
4 Conclusion

Based on the results of the above research, it can be concluded that (1) West Nusa Tenggara Province from 2013 to 2019 there has been a change in land use, namely the reduced forest area and generally turned into settlements, and (2) Deforestation in West Nusa Tenggara Province is influenced by population growth and is not influenced by economic growth.

References

Intangible Asset Moderation and the Sustainable Investment and Firm Value Relation

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Abstract. Sustainable investment in intangible assets provides opportunities to increase firm value. This study examines the moderation effect of intangible assets in sustainable investment to increase firm value. Public corporate in the telecommunication sector in Indonesia is the focus of this research, and a total of 23 data were observed. Proxy for measuring intangible assets using SG&A expenses. To estimate and test model parameters used Process Macro for SPSS V3.4. The results showed that positively and significantly intangible assets sensible sustainable investment on firm value with proxy Return on Equity (ROE) and market to Book Value of Equity (MBVE). Corporations with intangible assets more perform better, prove and strengthen previous research that intangible assets add to firm value.

Keywords: Intangible assets, sustainable investment, firm value, SG&A

1 Introduction

Global economic growth as a result of the Covid-19 outbreak decreased from 2.9 percent to 2.4 percent. If this disaster takes longer, it is predicted that economic growth will only be 1.5 percent [27], even many countries have experienced negative economic growth. This study analyzes the moderating role of intangible assets in the relationship between investment and firm value in the telecommunications sector. Since Covid-19, the telecommunications industry plays a significant role. There has been a shift in work patterns and public activities to become indirect.

Many information technology-based companies in Indonesia have a large market capitalization, for example, Gojek, Grab, Traveloka, Tokopedia, and Bukalapak. Service and technology-based companies' presence proves that intangible assets such as brands, patents, software, customer relationships, databases, innovative products, human resources, and distribution systems are increasingly important [23]. However, the extent of the capitalization value is challenging to identify because it is not presented in the balance sheet, making it challenging to become collateral when companies apply for bank loans. Intangible assets are significant and efficient in creating a company's competitive advantage, which leads to an increase in firm value.

The continuous growth of intangible investment is a hallmark of increasing developed countries' economies, initiating changes in business models, strategies and company performance negative relationship between investment and cash flow at a trim level company [18]. A positive relationship at a significant level company, an increase in cash flow will affect
firm value. Physical and intangible investment is equally good, but intangible capital adjusts more slowly with investment opportunities; Q-Tobin explained that intangible asset is much better than physical investment [23]. Productive, sustainable investment spending has a positive effect on firm value [12].

Along with the importance of intangible assets over time and serve as an additional factor to explain the firm value, it shows that higher intangible assets generally add to the firm. The proxies used to measure intangible assets in this study are previous studies using research and development (R&D) expenditures [4, 10].

Share ownership in higher top management, entrepreneurial ability to manage the company and companies with many intangible assets will simultaneously increase the value of Tobin's Q [21]. The analysis shows that the size of intangible assets is a determinant of firm value. The proxy of intangible assets uses advertising and R&D capital [10, 26]. Provides empirical evidence that intangible assets positively and significantly affect company performance as represented by ROA. The higher the intangible assets, the higher the dividends paid because they want to provide a positive signal for investors. There is an increase in market capitalization value during mergers and acquisitions, and companies with more intangible assets have lower leverage [4].

The Contribution for this study are; first: shows that sustainable investment will be maximized if the corporate invests in intangible assets, second; proxies measure firm value using accounting-based; Return on Asset (ROA), Return on Equity (ROE), and market performance-based, Tobin's Q and the Market to Book Value of Equity (MBVE).

We compiled this article into; section 1 research background, section 2 describes contains data and methodology, section 4 discusses the results and discussion, section 5 conclusions.

## 2 Method

The analysis in this study uses a financial management approach. The research method used is the descriptive verification method. This study's population was telecommunications sector companies listed on the Indonesia Stock Exchange (IDX) in 2014-2019. The study's primary data used secondary data obtained from IDX, company annual reports, literature studies, scientific articles/journals, and corporate data publication.

<table>
<thead>
<tr>
<th>Table 1. Sample Selection</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
</tr>
<tr>
<td>Preliminary sample size (2014-2019)</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Less Observations with incomplete data</td>
</tr>
<tr>
<td>Outliers data</td>
</tr>
<tr>
<td><strong>Total data observation Sample</strong></td>
</tr>
</tbody>
</table>
Firm Value measured using accounting-based: Return on Asset (ROA), Return on Equity (ROE) and market performance-based; Tobin’s Q, and Market to Book Value of Equity (MBVE), this is consistent with prior studies [24,16,20]. The sustainable investment represents by capital expenditure [14]. The proxies used to measure intangible assets in this study are consistent with previous studies, selling, general, and administration (SG&A) [19,6,17,11,18,25]. The operational variable of the research is Table 2.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent Variable</td>
<td></td>
</tr>
<tr>
<td>Return on assets (ROA)</td>
<td>The ratio of net income over the book value of average total assets [14]</td>
</tr>
<tr>
<td>Return on equity (ROE)</td>
<td>The ratio of net income over the book value of average total equity [14]</td>
</tr>
<tr>
<td>Tobin’s-q</td>
<td>The ratio of the sum market capitalization plus debt divided the total assets [14]</td>
</tr>
<tr>
<td>Market-to-book value of Equity (MBVE) or PBV</td>
<td>The ratio of the sum market capitalization divided the total equity [14]</td>
</tr>
<tr>
<td>Independent Variable</td>
<td></td>
</tr>
<tr>
<td>Sustainable Investment</td>
<td>Capital expenditure (Capex) [14]</td>
</tr>
<tr>
<td>Alt-INVEST1:</td>
<td>The change (from the beginning of the year to the end of the year) in net fixed asset and depreciation, amortization scaled by beginning-year total assets</td>
</tr>
<tr>
<td>Alt-INVEST2:</td>
<td>The change (from the beginning of the year to the end of the year) in net fixed assets scaled by the beginning-year total assets.</td>
</tr>
<tr>
<td>Moderation Variable</td>
<td>Selling, general and administrative (SG&amp;A) [17]</td>
</tr>
</tbody>
</table>

To test and estimate model parameters using Process Macro for SPSS V3.4. Conceptual and statistic diagram basic model is as follows;

\[ Y = \beta_0 + \beta_1 X + \beta_2 Z + \beta_3 XZ + \epsilon \] (1)

\[ \text{ROA}/\text{ROE}/\text{Tobin’s-Q}/\text{MBVE} = \alpha_1 + \beta_1 \text{Invest}-1 + \beta_2 \text{SG&A} + \epsilon_{it} \] (2)

\[ \text{ROA}/\text{ROE}/\text{Tobin’s-Q}/\text{MBVE} = \alpha_2 + \beta_1 \text{Invest}-2 + \beta_2 \text{SG&A} + \epsilon_{it} \] (3)
3 Results and Discussion

3.1 Results

Table 3. Description of Firm Value, Sustainable Investment, and Intangible Variable

<table>
<thead>
<tr>
<th>Variable</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>St. Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>INVEST-1</td>
<td>-14160</td>
<td>53394</td>
<td>15535.39</td>
<td>16360.61</td>
</tr>
<tr>
<td>INVEST-2</td>
<td>-14974</td>
<td>25278</td>
<td>5218.00</td>
<td>9875.72</td>
</tr>
<tr>
<td>SG&amp;A</td>
<td>252</td>
<td>10528</td>
<td>3631.61</td>
<td>9875.72</td>
</tr>
<tr>
<td>ROA %</td>
<td>-208.40</td>
<td>46.40</td>
<td>-11.93</td>
<td>52.92</td>
</tr>
<tr>
<td>ROE %</td>
<td>-18.00</td>
<td>29.20</td>
<td>7.02</td>
<td>12.77</td>
</tr>
<tr>
<td>Tobin's-q</td>
<td>.90</td>
<td>113.90</td>
<td>8.42</td>
<td>23.90</td>
</tr>
<tr>
<td>MBVE</td>
<td>-394.70</td>
<td>4.70</td>
<td>-36.00</td>
<td>91.42</td>
</tr>
</tbody>
</table>

Base on Table 3, average invest-1 15535.39, average invest-2 5218.00, Average SG&A 3631.61, Average ROA -11.93, Average ROE 7.02, Average Tobin’s-Q 8.42, and average MBVE -36.00.

Table 4. Summary Statistic, Fixed effects regression results of Firm Value, Sustainable Investment, and Intangible Asset (Model Invest-1)

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Invest-1 R.Sq/F-value/ p-value</th>
<th>Invest-1 R.Sq/F-value/ p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ROA</td>
<td>ROE</td>
</tr>
<tr>
<td>R-Sq</td>
<td>.3595</td>
<td>.7248</td>
</tr>
<tr>
<td>F-value</td>
<td>3.5544</td>
<td>16.6762</td>
</tr>
<tr>
<td>p-value</td>
<td>.0340*</td>
<td>.0000*</td>
</tr>
<tr>
<td>SG&amp;A (+/-)</td>
<td>.3281</td>
<td>.3192</td>
</tr>
<tr>
<td>p-value</td>
<td>(.2391)</td>
<td>(.1456)</td>
</tr>
<tr>
<td>R2-chng</td>
<td>.1377</td>
<td>.0889</td>
</tr>
<tr>
<td>F-Chng</td>
<td>4.0859</td>
<td>6.1352</td>
</tr>
<tr>
<td>p-Value Chng</td>
<td>0.0476*</td>
<td>.0228*</td>
</tr>
</tbody>
</table>

Based on table 4, Sustainable investment using the Invest-1 proxy with ROA; the inclusion of the moderating variable (XZ) into the model can increase R2 by 13.77%. The value of F change is 4.0859, the p-value is 0.0476, which means that intangible assets; moderator significantly moderates the relationship between sustainable investment and return on assets (ROA). Invest-1 with ROE increases R2 by 8.89%, F value of change is 6.1352, the p-value is 0.0228, which means that intangible asset moderators significantly moderate the relationship between sustainable investment and Return on Equity (ROE). Invest-1 with MBVE increases R2 by 24.56%. F value of change is 8.4634. The p-value is 8.4634, which means that intangible assets; moderator significantly moderates the relationship between sustainable investment and the Market to Book value of Equity (MBVE). However, the inclusion of the transcendental
asset-moderating variable does not moderate the relationship between sustainable investment and Tobin’s-Q.

Sustainable investment using the Invest-2 proxy with ROA, the inclusion of the moderating variable (XZ) into the model can increase R2 by 11.01%, the value of F change is 2.9726, the p-value is 0.1009, which means that the moderator of intangible assets does not significantly moderate the relationship between sustainable investment and return on assets (ROA). Invest-2 with ROE increases R2 by 7.13%, F change value is 4.5320, the p-value is 0.466, which means that intangible assets moderator significantly moderates the relationship between sustainable investment and Return on Equity (ROE). Invest-2 with MBVE increases R2 by 11.40%. F value of change is 3.0402. The p-value is 0.0497, which means that intangible asset moderators significantly moderate the relationship between sustainable investment and Market to Book value of Equity (MBVE). However, the Invest-2 proxy with the inclusion of the intangible asset-moderating variable does not moderate the relationship between sustainable investment and Tobin’s-Q.

The analysis results show that; Invest-1 and Invest-2 proxies consistently show that intangible assets significantly moderate the relationship between sustainable investment and Return on Equity (ROE) and Market to Book value of Equity (MBVE). And intangible assets cannot reconcile the relationship between sustainable investment and Return on Assets (ROA) and Tobin’s-Q.

3.2 Discussion

To strengthen this research, the theory that becomes the goal is; physical and intangible investment and the company's total value. This article corroborates previous research examining the empirical relationship between intangible investment and Tobin's q, positive relationship between investment in organizational capital and q7, indicating that brand capital investment and physical investment follow the economic or procyclical cycle [3].

Investment is an effort to obtain cash flow estimates to maintain the company's sustainability and performance. There is a positive relationship between investment and cash flow1. The positive effect of investing activities will increase firm value [22]. Investment is positively related to cash flow and Tobin's Q. Both Q and investment move in the same direction as expected in income growth, so changes in expected income growth encourage Q and investment to move positively [1]. Productive, sustainable investment spending has a positive effect on firm value [12].

The sustainable growth of intangible investment is a hallmark of improving developed countries' economies, initiating business models, strategies, and company performance [18]. The results showed that intangible assets were able to moderate and significantly impact the relationship between sustainable investment and firm value with the Proxy of Return on Equity (ROE) and Market to Book value of Equity (MBVE). Physical and intangible investments are just as good; the intangible asset is much better than the physical investment [23]. There is a higher investment-cash flow sensitivity for companies that use intangible assets [2].

Provide empirical evidence showing a positive and significant relationship between R&D expenditure and market value [15]. Intangible assets over time serve as an additional factor to explain the firm value, suggesting that higher intangible assets generally add to firm value [4, 21]. Empirical evidence that intangible assets have a positive and significant effect on company performance as represented by ROA and the increase in intangible assets, dividends are paid because the company wants to provide a positive signal for investors9.

The measure of intangible assets is a determinant of firm value, a proxy for intangible assets using advertising and R&D capital [10,26]. There is an increase in market capitalization value
at mergers and acquisitions, and companies with more intangible assets have lower leverage. However, intangible assets cannot explain the relationship between Company Performance and Company Market Value [28,17].

Based on the results of the study indicates the importance of companies investing in intangible assets. In the telecommunications industry, spending on human resource development to transform into a digital culture is essential. You have high agility at work and have the competence of digital talents who can develop digital product innovations. Also, researches that lead to company patents and trademarks are expected to be able to lift the company's image so that, in the end, it will increase the company's value. Along with the development of information and communication technology today, market perceptions are influenced by intangible investments.

4 Conclusion

The conclusions of this studies are; the inclusion of intangible asset moderation in the survey has significantly and positive moderate the relationship of sustainable investment with firm value with the proxies of Return on Equity (ROE) and Market to Book value of Equity (MBVE), but was unable to moderate the Return on Assets (ROA) and Tobin's -Q. The importance of investing in intangible assets and dynamic advantages that continuously adapt to changes and the needs of information and communication technology. Limitation: This research does not reflect the overall stock exchange performance. It is because only in the telecommunications sector, the 2014-2019 study period. Study Forward: Based on the data analysis results, the suggestions for this study are: 1) broadening the scope of research objects in public companies in Indonesia and the period of research. 2) Proxy to a measured intangible asset used R&D costs. 3) Moderation and mediation of research variables that can increase the relationship between investment and firm value. 4) For public companies, it is necessary to update policies, business processes, data preparation, and financial systems to ensure the accuracy of applying the IFRS standard, which is quite complex.

Acknowledgments

The highest gratitude and appreciation to the Piksi Ganesha Polytechnic, Postgraduate School of the Universitas Pendidikan Indonesia (UPI), lecturers support the subjects and those who have helped complete the research.

References


The Public Services of PT KAI in the New-Normal Era

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Abstract. The new normal policy with the implementation of health protocols which aims to prevent the spread of the Covid-19 virus has limited access to public services for PT KAI, especially for passenger train services, whose occupancy has been drastically reduced and has decreased its income by 38.9%. To provide prime public services, PT KAI must adapt to accommodate the public's needs for train transportation whilst still paying attention to passenger satisfaction by paying attention to safety and comfortability of passengers. This research method is literature study, using descriptive analysis, namely providing education and understanding to readers. The type of data used in this study is secondary data. The results show that PT KAI has implemented service standards in accordance with the Circular of the Ministry of Transportation Number 14 of 2020 concerning technical instructions for railroad transportation control during the adaptation period for new habits to prevent the spread of Covid-19 which includes: operation of rail travel, passenger capacity and health protocols in which the requirements for passengers and operators of railway infrastructure and facilities are regulated. The results of this study also reveal that there is still a lack of public awareness in adhering to health protocols, however PT KAI always conducts regular education, socialization and simulation of SOP Health Protocols to the public, service users and employees of PT KAI.

Keywords: Public service, PT. KAI, new normal

1 Introduction

The current COVID-19 pandemic has a significant impact on social life. Social distancing, physical distancing and large-scale social distancing (PSBB) policies were made to reduce the chain of virus spread. "Lockdown policy is not the only government strategy to tackle coronavirus, social distancing policy is also implemented to tackle coronavirus for areas where the spread of coronavirus is not yet massive. Herdiana [1] said that : The basis of understanding on social distancing policy is by reducing the intensity of social interaction between people, which in the implementation of social distancing policy, direct physical contact between one person and another is limited so that the spread of the coronavirus can be minimized among humans. People are asked not to gather in groups and avoid crowded places. The habit of washing hands with soap for twenty minutes regularly and the use of masks, especially in public places, are mandatory protocols in this new normal era. Not only protect yourself but also others.

To prevent the spread of the virus, the Minister of Health issued Permenkes No.9 / 2020 on Guidelines for Large-Scale Social Restrictions to accelerate the handling Covid-19 and it is
implemented in several regions in Indonesia. These regulations cover school and work holidays, restrictions on religious activities, restrictions on activities in public places or facilities, restrictions on social and cultural activities, restrictions on modes of transportation, and restrictions on other activities. The state civil apparatus (ASN) which serves as public servants also implements a work from home (WFH) work system.

Aknolt Kristian Pakpahan [2] in his research explained that: The report of the Organization for Economic Co-operation and Development (OECD) states that this pandemic has implications for the threat of a major economic crisis marked by the cessation of production activities in many countries, falling levels of public consumption, loss of consumer confidence, fall in the stock market which in turn leads to uncertainty. If this continues, the OECD predicts a decline in output levels of between a fifth and a quarter in many countries, with consumer spending potentially falling by about a third.

"The Covid-19 pandemic has an impact on the worsening of the financial system, which is reflected in the decline in domestic economic activity. The government and related institutions need to immediately take policies and steps to save the national economy and financial system stability and economic recovery and strengthen the authority of various institutions in the financial sector [3]. However, services must still be provided to people who desperately need rail transportation. It is time for PT KAI to implement a new normal service and fulfill the public's need for railroad transportation while still paying attention to safety, comfort and passenger safety.

The new normal policy by implementing health protocols has limited access to public services for PT KAI. PT KAI must try to serve the public maximally and switch to an online system. This transition effort must be accompanied by providing education and socialization on a massive scale to all elements of society who will access public services to take advantage of the online system in every public service to be accessed so that public services in the midst of a new "new normal" life order are not disrupted and become more effective and efficient.

The implementation of health protocols with restrictions on the movement of people by the government will have a direct impact on the community, including the public service sector organized by state administrators that provide direct services to the public. The Covid-19 pandemic has had an impact on the worsening of the financial system as indicated by a decline in domestic economic activity.

2 Methods

This qualitative research uses the case method, to reveal and understand the realities that occur in the field intensively, in detail and comprehensively. The data collection techniques used were literature studies, interviews and documentation studies, through various literatures, namely scientific journals, books, data from PT KAI, articles in mass media, and statistical data, accompanied by interviews with PT KAI users in this new normal era. This research is a descriptive analysis, which is to provide education and understanding to readers, using secondary data.
3 Results and Discussion

PT KAI (Persero) is an Indonesian State-Owned Enterprise that provides railroad transportation services which include passenger and freight transportation. At the end of March 2007, the DPR passed the revision of Law Number 13 Year 1992, namely Law Number 23 Year 2007 which emphasizes that private and regional government investors are given the opportunity to manage rail transport services. Thus, the enactment of this law legally ends the monopoly of PT KAI in operating railways in Indonesia. On August 12, 2008, PT KAI separated the Jabotabek Urban Transport Division into PT KAI Commuter Jabodetabek (KCJ) which in 2017 became PT Kereta Commuter Indonesia to manage commuting trains in the Jakarta and surrounding areas. During 2015, the number of train passengers reached 325.94 million. On September 28, 2011, to coincide with its 66th birthday, PT KAI launched a new logo.

PT KAI at the regional level has nine Operational Areas (Daop) in Java and three Regional Divisions (DIVRE) in Sumatra. One of the operating areas that has the largest station with the highest number of passengers is the operation area II, namely Bandung Station. Operation Area II Bandung or abbreviated as Daop II Bandung is one of the Indonesian railway operating areas, under the PT Kereta Api Indonesia (Persero) environment.

Based on BPS data, during the COVID-19 Pandemic, the number of domestic and international transport passengers experienced a sharp decline. For air transportation, the number of passengers decreased by 20.84%, while for sea transportation it was down 3.78% from the previous month. It is the same as PT KAI, which has also experienced a significant impact both on the number of passengers and income as a result of the Covid-19 pandemic. Some services, such as long-distance train travel, have to be temporarily suspended and their operations restricted. Since March 23, 2020, PT KAI has canceled 401 train trips. This is done to support government directives regarding the prohibition of homecoming activities. In addition, the number of passengers that can be transported during this pandemic has also been adjusted to only around 60 people per car from a capacity of 200 people per car to comply with the Covid-19 protocol. Below in Table 1 that describes the comparison of the number of train passengers of PT KAI from January to September 2020. A drastic difference began in April 2020 which touched its lowest figure in May 2020 with a total passenger number of 406,944 people. In June, the number of passengers again gradually increased until the end of September through the figure of 1,751,318 passengers (see Table 1).

<table>
<thead>
<tr>
<th>Month/ 2020</th>
<th>Vol PNP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan</td>
<td>7,400,752</td>
</tr>
<tr>
<td>Feb</td>
<td>6,669,659</td>
</tr>
<tr>
<td>Mar</td>
<td>4,878,223</td>
</tr>
<tr>
<td>Apr</td>
<td>761,362</td>
</tr>
<tr>
<td>Mei</td>
<td>406,944</td>
</tr>
<tr>
<td>Jun</td>
<td>699,309</td>
</tr>
<tr>
<td>Jul</td>
<td>1,122,357</td>
</tr>
<tr>
<td>Agt</td>
<td>1,759,751</td>
</tr>
<tr>
<td>Sept</td>
<td>1,751,318</td>
</tr>
<tr>
<td>Total until september</td>
<td>25,449,675</td>
</tr>
</tbody>
</table>
3.1. New normal transition standard service

Of all the services offered by PT KAI, the one most affected by the Covid-19 condition was a passenger train whose occupancy was drastically reduced and made PT KAI's income drop drastically. PT KAI sells its tickets on www.kai.id and the KAI Access application which can be downloaded on the Playstore/Appstore. For the price range set by PT KAI varies greatly, because it is influenced by several factors, namely the distance traveled and the selected class (economy or executive), with prices ranging from:

- Executive class: Rp. 200,000 - Rp. 600,000
- Economy class: IDR 50,000 - IDR 200,000
- Local trains (KRD): Rp. 8,000 - Rp. 36,000

In the midst of this pandemic, the train ticket prices offered have increased because there are still only a few trains operated and PT KAI is experiencing a deficit in revenue. PT KAI stations are located in all corners of Java and Sumatra, so that they are easily accessible by the community, this has resulted in the train becoming the most popular transportation service for the community. But lately, these stations have been very quiet due to health protocol regulations that impose social distancing and temporary suspension of train services.

The promotions carried out by PT KAI are quite diverse, through print media, through print media, social media, advertising, sales promotion, and personal selling through the distribution of train schedules using various media. PT KAI also carries out sales promotions using digital marketing by utilizing applications and online ticket sales. PT KAI recorded revenues of Rp7.41 trillion in the second quarter of 2020, which fell 38.9% compared to the same period in 2019. During the first 6 months of 2020, PT KAI recorded an accumulated loss of Rp1.35 trillion, inversely proportional to the period that was the same as the previous year where PT KAI recorded an accumulated profit of IDR 1.21 trillion. (source www.kai.id) This is none other than the result of the temporary stop and restrictions on train operations in March-April 2020 when the beginning of COVID-19 spread in Indonesia.

Since June-July 2020, PT KAI has started to reopen train operations for the general public, gradually starting from short and medium-distance trains. This opening was certainly accompanied by various new regulations related to the health and safety of passengers and employees of PT KAI. New Normal in trains prioritizes railway services by reducing physical contact and implementing health protocols. The point is to protect employees and passengers from the possibility of being exposed to Covid-19 during the New Normal period as follows:

Booking Long Distance Train tickets can only be made online through the KAI Access application and other external channels, by including the complete documents required according to the Covid-19 Task Force Circular, Number 7 of 2020, which shows a PCR Test Certificate with negative results valid for 7 days or a certificate of Rapid Test with non-reactive results that is valid for 3 days at the time of departure. In addition, showing a symptom-free certificate such as influenza issued by a hospital doctor / puskesmas for areas that do not have PCR or Rapid Test facilities. Passengers must also download and activate the Peduli Lindungi application on the mobile device. The counters at the station are only used for go show purchases (three hours before the scheduled departure), and still pay attention to health protocols by keeping a distance. The operating hours of the trains are regulated by taking into account the PSBB in each region. In the Figure 1 are the conditions for purchasing tickets both online and offline at the Train Station.
Pre-trip in zone 3 of the departure station, passengers are advised to bring hand sanitizers, wear a nose and mouth mask and wash their hands in the space provided.

The implementation of CLM at Gambir station also makes it easier and more attractive to increase the number of return passengers. CLM or Corona Likelihood Metric which can be easily downloaded on the play store or app store is very efficient and effective, when compared to SIKM or the Entry and Exit Permit. This is because CLM is paperless and eliminates bureaucracy, because it is easy to do with an android or a cellphone owned by a passenger.

The determination of passenger capacity must comply with the health protocol as stipulated as follows, in the first stage, a maximum number of passengers is limited to 70% (seventy percent) of the number of seats of each train capacity. Especially for Luxury trains, the maximum passenger capacity is 100%, while the second stage is to limit the number of passengers to a maximum of 80% (eighty percent) of the number of seats of each train capacity.

When leaving, passengers must show their tickets and identity to the boarding officer. If it has been checked, the passenger scans the ticket barcode or e-boarding independently witnessed by the boarding officer. Passengers are required to maintain a distance according to the seating and standing signs at the station and on the train, wear a mask, passengers are also required to wear a face shield provided by KAI, as well as a protective coat (jacket or long-sleeved clothing). All equipment must be used by passengers from the time they are at the station until they leave the arrival station area.

In the Figure 2 is an overview of the health protocol carried out by PT KAI before entering the station area and entering the train.
To ensure passenger health, officers will measure the body temperature of passengers on the train every three hours. If a passenger is caught with a temperature of 37.3 degrees Celsius or more and experiences Covid-19 symptoms, the passenger will be moved to an isolation room on the train.

PT KAI also regulates the operators of railway infrastructure and facilities by: Providing hand sanitizers and hand washing facilities, providing face shields; providing mask sales counters at affordable prices at stations, providing distance guard facilities (1 meter) in the form of signs at stations and on trains, providing applications or queuing number systems, providing isolation space if there are passengers whose temperature is not normal, providing medical personnel and emergency teams at stations and / or on every train journey, Cleaning facilities that passengers frequently touch with disinfectants by OTC officers (30 minutes), separating passengers over 50 years / elderly from other passengers

The officer will clean the objects that are often held by hand every 30 minutes in turn. Train officers will be equipped with personal protective equipment (PPE). KAI provides portable sinks and hand sanitizers at points that are easily accessible by passengers.

The Figure 3 below shows the cleaning process carried out by PT KAI officers

![Fig. 3. Cleaning of carriages and station locations](image)

To maintain the safety and health of KAI frontliners who have the potential to have close contact with passengers, they will be provided with personal protective equipment (PPE) in the form of masks, gloves and face shields, and station cleaners regularly clean or sterilize station areas that are touched by passengers such as chairs, door handles and others.

PT KAI also prepares Standard Operating Procedures for Emergency Management SOPs, if a passenger is exposed to Covid-19, or by dropping off a passenger at the nearest station if Covid-19 is indicated.

PT KAI always tries to improve its operational services during this pandemic, because in Indonesia positive cases of Covid-19 are still increasing every day. It is very important to improve security and health services for prospective passengers who are supported by information technology innovation because of the less mobility factor and developments in the online world that have increased dramatically.

PT KAI must adjust its marketing strategy and ensure that the company uses good online services and is not left behind. In addition, the socialization of the use of sophisticated information technology by PT. The massive KAI can significantly increase the number of passengers, given the productive age of the Indonesian population currently using smartphones and actively using social media.
4 Conclusion and Recommendation

4.1 Conclusion

At the time of writing this article, PT KAI has implemented service standards in accordance with the Circular of the Ministry of Transportation Number 14 of 2020 concerning technical instructions for railroad transportation control during the adaptation period of new habits to prevent the spread of COVID-19 which includes: train travel operations, passenger capacity and protocols, health, which includes the regulation of requirements for passengers and operators of railway infrastructure and facilities.

The results of this study also reveal that there is still a lack of public awareness in complying with health protocols, but PT KAI always conducts regular education, socialization and simulation of SOP Health Protocols both to the public, service users and employees of PT KAI, especially in the use of the CLM application or Corona Likelihood Matrix through passenger hand phones at PT KAI stations.

4.2 Recommendation

a. PT KAI's massive socialization with the help of social media such as Instagram, Youtube and spotify will significantly increase PT KAI's users.
b. Online payments are enhanced by cooperating with private channels such as Gopay, pedia stores and others, making it very easy and attractive to potential customers. Even with Bumdes and banks that have cooperation with ASN salaries.
c. Socialization with cookie techniques can also be done for customers in the middle and upper economy.
d. The cash back program will also add to the attractiveness of train ticket sales.
e. To increase the market expansion when the fast train is ready, the Covid protocol must be maintained so that the service is more attractive to customers of the existing types of trains, for example the quality of the menu in restoration is improved, the friendliness of all PT KAI employees at every stations and at all levels not only at Gambir big station and other big stations.

References

The Effectiveness of Crocatum Piper and Annona Muricata L Leaves Toward Leukorrhea in Hormonal Contraception Acceptors in the Working Area of Regional Public Service Agencies of Public Health Center in Tembelang

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{Zenyjoe123@gmail.com¹}

Abstract. The purpose of this study is to determine the effectiveness difference of red betel plus soursop leaves decoction and soursop leaf decoction against leukorrhea in hormonal contraceptive acceptors in the working area of Regional Public Service Agencies of Public Health Center in Tembelang. It is a pre-experimental research design with two groups pretest and post test design. The population is all of the hormonal contraceptive acceptors who had leukorrhea in the Regional Public Service Agencies of Public Health Center in Tembelang. 30 subjects group of cases with vaginal wash treatment using red betel mixed with soursop leaves decoction and 30 subjects control group with vaginal wash treatment using soursop leaf decoction. The samples were taken by using purposive sampling technique which the independent variable was vaginal wash treatment using red betel and soursop leaves decoction, and the dependent variable is Leukorrhea. The research instrument used was the observation sheet and the data were analyzed by using the T test. The T test of the two treatments was statistically significant with P value is 0.001. The decoction of red betel (Piper Croratum) leaf and soursop (Annona Muricata L) leaf is more effective in curing complaints of leukorrhea in women who experience female reproductive organs problems related to leukorrhea.

Keywords: Effectiveness difference, effectiveness of piper croratum and annona muricata L, leukorrhea

1 Introduction

Leukorrhea should not be underestimated because it can cause serious problems in the external female reproductive organs, such as genetalia, pain during sexual intercourse, infections that cause genetalia edema, burning sensation in the vagina, etc. Almost all women in the world experience vaginal discharge, at least once and twice or more in a lifetime. In Indonesia, the prevalence of women experiencing leukorrhea at least once in their life is 75% and women who experience Leukorrhea more than or equal to twice is 45%. Hormonal contraceptives are contraceptives in which estrogen and progesterone provide feedback to the pituitary gland through the hypothalamus, causing obstruction to the follicles and the ovulation process [3].
Fluor albus, which is sometimes found in hormonal contraceptives with high doses of progesterone, is caused by the increase of infection with candida albicans. Leukorrhea is a sign of cervical cancer. Cervical cancer is the fourth most common cancer among women in worldwide. In 2012, the incidence of cervical cancer in the world was 528,000 new cases with a death rate of 266,000. Human Papilloma Virus (HPV) is a sexually transmitted infection that causes cervical cancer. The low and high risk of HPV against cervical cancer depends on the involvement of other factors, namely parity and contraceptives [4]. Red betel leaf contains alkaloids that green betel does not have as an antimicrobial and it also has an antiseptic power twice as high as green betel leaf. The red betel decoction has not only antimicrobial content and antiseptic power higher than green betel, but also carvacrol which is used as disinfectant and anti-fungal so that it can be used as an antiseptic medicine to maintain the health of the oral cavity, cure vaginal discharge and bad odor [2].

Soursop leaves (Annona muricata L.) contain alkaloid compounds, polyphenols, flavonoids, triterpenoids, some of which are considered to have inhibitory activity against fungi, especially Candida albicans which is the main cause of infection with candidiasis vaginalis [5]. The highest antifungal effectiveness of the active compound in soursop leaves was the N-Hexane fraction with an inhibitory diameter of 23.7 mm which was categorized as stronger than the positive control for ketoconazole with an inhibition zone of 22, 5 mm and 15.9 mm of nystatin. Soursop leaves can be used to treat vaginal discharge in women because they contain antiseptic substances that can kill germs, namely phenol, where exist in the soursop leaves which has antiseptic properties 5 times more effective than the ordinary phenol, to treat vaginal discharge [7]. The purpose of this study was to analyze the effectiveness differences of red betel and soursop leaves against Leukorrhea in hormonal contraceptive acceptors in the Regional Public Service Agencies of Public Health Center in Tembelang, Jombang. It also can be used as an educational material and alternative complementary medicine against Leukorrhea in women.

2 Method

The research design used in this study was a pre-experimental two group with pretest and post test design (Table 1). It is an experimental design by observing the incidence of leucorrhea first, then giving the intervention, next is observing changes in the incidence of leucorrhea (8).
Table 1. Research Model

<table>
<thead>
<tr>
<th>Subject</th>
<th>Pre test</th>
<th>Treatment</th>
<th>Post test</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>Observation</td>
<td>Soursop and Red Betel Leaf Decoction</td>
<td>Observation</td>
</tr>
<tr>
<td>A2</td>
<td>Observation</td>
<td>Soursop Leaf Decoction</td>
<td>Observation</td>
</tr>
</tbody>
</table>

The population in this study were hormonal contraceptive acceptors in the working area of Regional Public Service Agencies of Public Health Center in Tembelang, Jombang. The sample was taken by purposive sampling technique with a total of 60 research subjects, 30 research subjects were given vaginal wash treatment using soursop leaf decoction and 30 research subjects were given treatment wash the vagina using a decoction of a mixture of red betel leaf and soursop and has passed the research ethics test.

This research was conducted at a Midwife’s Independent Practice of Niken Kinesti in Pulogedang Village, Tembelang and a Midwife’s Independent Practice of Khusnul Chabibah in Mojokrapak Village, Tembelang, on August 15 - September 15 2020, The independent variables of this study was the treatment by using a decoction of soursop leaves and a mixture of red betel and soursop leaf, while the dependent variable was Leukorrhea, The ingredients of this research were the decoction of soursop leaves and a mixture of red betel and soursop leaf with a concentration of 2%, which is 10 grams in 500 ml. The research instrument was an observation sheet which was carried out for 5 treatment days. Every day, the vaginal was washed twice with 200 ml of decoction. The research instrument of this study was the observation sheet. The data analysis was done through univariate and bivariate distribution tables by using the T test.

3 Results and Discussion

3.1 Results

Table 2. The Frequency Distribution of General Characteristics of Subjects Effectiveness of Soursop and Red Betel Leaf Decoction on Leukorrhea at Hormonal Contraceptive Acceptors in the Working Area of Regional Public Service Agencies of Public Health Center in Tembelang, Jombang in the year of 2020

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 20 years old</td>
<td>2</td>
<td>3.30</td>
</tr>
<tr>
<td>20-35 years old</td>
<td>33</td>
<td>55.0</td>
</tr>
<tr>
<td>&gt;35 years old</td>
<td>25</td>
<td>41.7</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40-55 kg</td>
<td>17</td>
<td>28.3</td>
</tr>
<tr>
<td>56-65 kg</td>
<td>22</td>
<td>36.7</td>
</tr>
<tr>
<td>&gt;65 Kg</td>
<td>21</td>
<td>35.0</td>
</tr>
<tr>
<td><strong>Contraception Method</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 month injection</td>
<td>19</td>
<td>31.7</td>
</tr>
<tr>
<td>3 months injection</td>
<td>19</td>
<td>31.7</td>
</tr>
<tr>
<td>Pill/ Tablet</td>
<td>20</td>
<td>33.3</td>
</tr>
<tr>
<td>Implant</td>
<td>6</td>
<td>3.3</td>
</tr>
<tr>
<td><strong>The length of use</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 3 years</td>
<td>29</td>
<td>48.3</td>
</tr>
<tr>
<td>≥ 3 years</td>
<td>31</td>
<td>51.7</td>
</tr>
<tr>
<td><strong>Job</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housewife</td>
<td>55</td>
<td>92.0</td>
</tr>
<tr>
<td>Not a housewife</td>
<td>5</td>
<td>8.0</td>
</tr>
<tr>
<td><strong>Educational status</strong></td>
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<td></td>
</tr>
<tr>
<td>Elementary - Middle</td>
<td>20</td>
<td>33.3</td>
</tr>
<tr>
<td>High School</td>
<td>35</td>
<td>58.5</td>
</tr>
<tr>
<td>Undergraduate</td>
<td>5</td>
<td>8.4</td>
</tr>
</tbody>
</table>
Table 2 shows that most of the subjects were 55% in the age of 20-35 years old, 35% of body weight is more than 65 kg, the most widely used hormonal contraceptive method was consuming pill/tablet contraception as much as 33.3%, the length of time using hormonal contraception was mostly more than 3 years was 51.7%, 58.3% of the education background was senior high schools and parity once in a lifetime is 58.3%

Table 3. The Frequency Distribution of Research Variables Effectiveness of Soursop and Red Betel Leaf Decoction on Leukorrhea in Hormonal Contraceptive Acceptors in the Regional Public Service Agencies of Public Health Center in Tembelang, Jombang in the year of 2020

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Leukorrhea</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Recovered</td>
<td>Not fully recovered</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>Before</td>
<td>0</td>
<td>0</td>
<td>30</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>After</td>
<td>23</td>
<td>77</td>
<td>7</td>
<td>23.3</td>
<td></td>
</tr>
</tbody>
</table>

The hormonal contraceptive acceptors who experienced complaints of leukorrhea before treatment were 30 subjects. After the treatment using a vaginal wash using a mixture of soursop and red betel leaves for 5 days with a frequency of washing twice a day, 23 subjects of hormonal contraceptive acceptors were recovered from leukorrhea complaints and 7 subjects were not fully recovered and still have leukorrhea complaints

Table 4. The Frequency Distribution of Research Variables Effectiveness of Soursop Leaf Decoction against Leukorrhea at Hormonal Contraceptive Acceptors in the Regional Public Service Agencies of Public Health Center in Tembelang, Jombang in the year of 2020

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Leukorrhea</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Recovered</td>
<td>Not Fully recovered</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>Before</td>
<td>0</td>
<td>0</td>
<td>30</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>After</td>
<td>21</td>
<td>70</td>
<td>9</td>
<td>30</td>
<td></td>
</tr>
</tbody>
</table>

The hormonal contraceptive acceptors who experienced complaints of leukorrhea before treatment were 30 research subjects. After the treatment using vaginal washing of soursop leaf decoction for 5 days with a frequency of washing twice a day, It was obtained that 21 subject of hormonal contraceptive acceptors were recovered from complaints of leukorrhea and 9 subjects were not fully recovered and still have leukorrhea complaints

Table 5. the results of the T-test based on the pre and post-test of Soursop and Red Betel Leaf Decoction group and the Soursop Leaf Decoction group

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean</th>
<th>p-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre and post test Soursop and Red Betel Leaf Decoction</td>
<td>0.77</td>
<td>0.000</td>
</tr>
<tr>
<td>Pre and post test Soursop Leaf Decoction</td>
<td>0.70</td>
<td>0.000</td>
</tr>
</tbody>
</table>
Table 5 shows that there is a difference in the effectiveness of soursop leaf decoction and a mixture of soursop and red betel leaf decoction against Leukorea on Hormonal contraceptive acceptors in the Regional Public Service Agencies of Public Health Center in Tembelang with significant statistical test results is p value < 0.001. The treatment of mixed soursop and Red betel leaves decoction can decrease leukorrhea complaints by 77% while soursop leaf decoction is also effective in decreasing leukorrhea complaints by 70% with significant statistical test results p value < 0.001.

3.2 Discussion

3.2.1 The effectiveness of soursop and red betel leaf decoction against leucorrhea on hormonal contraceptive acceptors

A mixture of soursop leaves (Annona muricata L) and red betel leaves (Piper crocatum) based on the results of statistical tests significantly with a P value < 0.001 and 77% effective can be used as an alternative to treat complaints of leucorrhea in women. Red betel decoction contains carvacrol which function is as disinfectant and anti-fungal so that it can be used as an antiseptic medicine to maintain oral health, cure vaginal discharge and odor. The substances in red betel have a major effect in reducing the symptoms of pathological vaginal discharge, such as carvacrol which can be used as an antiseptic drug. Flavonoids in red betel leaf has the function as antioxidant, antifungal, antiseptic, and anti-inflammatory. Alkaloids in red betel leaf also have antimicrobial properties and essential oils act as anti-bacterial and tannins which also have anti-bacterial power, the ethanol extract of red betel leaf shows antitrichomonas and the greater the concentration of the extract used, the more Trichomonas vaginalis cells die. The way to make decoction is by boiling 10 grams of red betel leaf in 500 ml.

Red betel soursop leaves (Piper crocatum) is a plant that contains chemical compounds such as flavonoids, alkaloids, saponins, tannins, and essential oils. The essential oil from red betel leaves contains flying oil (betlephenol), sesquiterpenes, starch, diastase, sugar and tanning substances and chavicol which have the power to kill germs, anti-oxidation and fungicides, anti-fungal which empirically reduces secretions in the vaginal opening and acute vaginal discharge13. Red betel leaf extract is able to kill the fungus Candida albicans which causes acute vaginal discharge and itching of the genitals. Soursop leaves (Annona muricata L) contain compounds of tannins, phytosterols, calcium oxalate and muricine alkaloids. Muricine alkaloids which are classified as phenolic compounds. Phenolic compounds can cause denaturation of membrane proteins, then these compounds can penetrate the nucleus and cause degradation of nuclear proteins resulting in cell death (in this case Candida albicans cells). Tannins in these leaves are thought to have effectiveness in inhibiting or killing the fungus Candida albicans. Tannins have the meaning of defense for the body, help repel plant predators, have antioxidant activity and are effective for antiseptics. Candida albicans is a fungus that is most often the cause of Leuchorea in women.

Hormonal contraceptives contain the hormones of estrogen and progesterone which will inhibit the process of egg maturation, thicken cervical mucus, atrophy the endometrial walls so that fertilization and pregnancy do not occur. The side effect of excess progesterone and estrogen due to contraception is one of the complaints of leucorrhea. Leucorrhoea can occur in respondents who use hormonal contraceptives with high amounts of progesterone. Prolonged exposure to contraceptives will cause a decrease in the natural resistance of the uterine wall or cervix to trauma, leading to infection [9].
Abnormal vaginal discharge can occur in all genital infections (infection of the pubic lips, vaginal intercourse, cervix, supporting tissue, and in infections due to sexually transmitted diseases). The characteristics of pathological vaginal discharge are containing a lot of leukocytes, many of which occur continuously, change color (usually yellow, green, gray, and resemble milk), accompanied by complaints (itching, heat, and pain) and musty, fishy and foul [1].

3.2.2 The effectiveness of soursop leaf decoction against leucorrhrea on hormonal contraceptive acceptors

Soursop leaf decoction (Annona muricata L) based on the results of statistical tests significantly with a P value <0.001 and 70% effective can be used as an alternative to treat complaints of leucorea in women. Soursop (Annona muricata L) can be an alternative medicine for fungal infections caused by candida albicans. Soursop leaves also have many uses, including as antibacterial, antifungal, anti-tumor, anti-convulsant, sedative, anti-parasitic, and cardiodepressant. Soursop leaves contain alkaloids, polyphenols, terpenes, acetogenins, flavonoids and lectins and terpenoids. The ethanol extract of soursop leaves shows antimycotic activity, especially against Candida albicans and can inhibit the growth of Candida albicans fungi with an average diameter of the inhibition zone of 12.5 mm which is categorized as strong. The damage to the cell membrane will disrupt the integrity of cellular components and cause the fungal respiration process to not occur. In the end, it results in insufficient energy for the active transport of nutrients so that fungal growth is disrupted [6].

Soursop leaves can be used to treat vaginal discharge in women because they contain antiseptic that can kill germs, namely phenol which has antiseptic properties 5 times more effective than ordinary phenols. To treat vaginal discharge, boil 10 soursop leaves in 2.5 liters of water, then the warm decoction can be used to wash the vagina [5]. 500 grams of 1000 ml of soursop leaves contain terpenoids which can inhibit fungal growth. Soursop leaves contain acitrin oil, 50%-65% cineol, α-pinene, limonene and dipenten, contain acetogeninous compounds, including asimycin, bulatasin and squamosin. At high concentrations, acetogenin compounds have the privilege of being as an antifeedent. Besides, they also contain annonaceous acetogenins which are able to kill cancer cells 10,000 times more powerful than adriamycin, which is commonly used in chemotherapy. Acetogenins can kill various types of cancer, such as colon, thyroid, phosphate, lung, breast, and pancreatic cancer and even ambient disease without damaging or disrupting healthy body cells [7].

4 Conclusion

Soursop and red betel leaf decoction is 77% effective and can be used as an alternative in healing complaints of leukorrhrea in hormonal contraceptive acceptors who experience complaints of vaginal discharge/leukorrhrea. Soursop leaf decoction is 70% effective and can be used as an alternative in healing complaints of leukorrhrea in hormonal contraceptive acceptors who experience complaints of vaginal discharge / leucorrhrea. Red betel leaf extract and soursop leaf can be used as a safe alternative medicine complementary against vaginal discharge in women of childbearing age.
References

[14] Husada (Jurnal KesMaDaSka) STIKes Kusuma Husada Surakarta.
Work-Life Balance and Job Satisfaction among Worker Women

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Abstract. The purpose of this study was to analyze the relationship between balance of work and employment among working women. The study participants included 134 women from X and Y companies in Yogyakarta, Indonesia. The hypothesis proposed was that the balance between work and life and satisfaction among respondents was positive and significant. The study used the Job Satisfaction Survey (Cronbach's Alpha = 0.930), and the Work-Life Balance Scale (Cronbach's Alpha = 0.795) to measure the work-life balance. Analysis of the data using a rho correlation technique by Spearman showed that in working women there was a strong and positive relationship between work-life balance and employment satisfaction (r = 0.352, p <0.000). The result implied the higher the balance between work and life of the respondents, the higher the level of satisfaction at work and vice versa. In addition, the results also showed that the job-life balance variable affected 12.39 percent job satisfaction.

Keywords: Work-life balance, job satisfaction, worker women

1 Introduction

Today working women were no longer considered taboo. Women in the near past were limited to the domestic sector activities. Nowadays this limitation was no longer standing as women could be seen working in many public sectors even became leaders in such services [1], [2]. The percentage of working women increased compared to previous years including in Indonesia where the total female worker participation was 55.44 % [3]. Several factors influenced women to work, including economic and social factors [4]. The economic factor was the willingness to improve family welfare, while the social factor was the element of prestige, especially for women who were highly educated and thought that work was self-actualization. Therefore, many married women agreed that working outside the home had a high value, even though the expected wages were not what they wanted.

The results of another survey conducted by CNN Indonesia in 2016 showed that as many as 77 percent of employees claimed to be dissatisfied with the allowances and facilities provided by the company [5], 83 percent of correspondents felt that the company did not give appreciation for employee performance. The results of another survey conducted by the Global Leadership Study in 2018 showed 83 percent of employees in Indonesia said they were not satisfied with their work [6]. This research shows that satisfaction is most strongly influenced by the behavior of the boss.

Workers had various values toward works which affected their job satisfaction [7]. Previous research emphasized the role of job characteristics as determinants of job satisfaction [8] as well...
as organizational determinants such as leadership [9]. To achieve job satisfaction, workers needed the opportunity to utilize various techniques in the job so that their responsibilities could be handled properly [7].

Dissatisfied employees could leave the job, often complain, disobey, steal company goods, avoid job responsibilities [10]–[12]. Job satisfaction is very important because employees were the most dominant factor in determining the success or failure of activities in an organization [13], [14] and were the biggest resource of any organization [15]. Employment satisfaction has created innovative ideas amongst employees that enable people to become loyal to the organization. Workers would be more satisfied if the efficient work-life balance and stress management policies would be what they expect.

Spector [16] argued that job satisfaction included an employee's feelings in general about the work or as an interconnected series of employee’s attitudes towards aspects of the work. If the company could influence the job satisfaction of employees, it would get many benefits. The benefits of employee job satisfaction included the work being completed faster, damage can be reduced, absenteeism, employee turnover and unit costs can be reduced, and work productivity can be increased [17]. The characteristics of satisfied workers were having high motivation to work and are happier to do their jobs, while the characteristics of workers who are less satisfied are feeling lazy to go to work and not enthusiastic about doing their work [18], [19].

The low job satisfaction of women according to Spector [16] could cause employee health to decline both physically and mentally. Another impact was the stress at work, which demonstrated an important negative relationship between work stress and job satisfaction [20]. The higher the level of stress at work, the lower the satisfaction at work. The job satisfaction also had a significant negative connection with the intention of turnover [21]. It meant that the higher the intention to sell the lower the job satisfaction.

Job satisfaction could be influenced by several factors including psychological, social, physical and financial ones [22], [23]. The survey results from Jobstreet.com in 2014 showed that 73% of employees were dissatisfied with their jobs. This is due to several factors, including work not according to educational background, no career path, military superior / paternalist / indifferent character and not having a work-life balance or balance between life and work. The factor that has the most influence is not having a work-life balance. As many as 85% of respondents admit that they do not have a balance between work and personal life. In this research, one of the factors to be examined in relation to job satisfaction is work-life balance [5].

The presence of work-life balance would increase job satisfaction or at least it could help generating a job satisfaction. Previous research explained that employees would feel satisfied with work and family life if there was a positive response in their work environment [24], [25]. Another research also showed a positive and significant relationship between work life balance and job satisfaction among pharmacy company employees. The work life balance variable affected employee job satisfaction by 42.2% and the rest was influenced by other variables [26]. Other research showed that work-life balance had a significant positive effect on job satisfaction for female employees in commercial banks [27].

Work-life balance was a form of individual satisfaction in achieving a balance of life and work [26], [28]. When work interfered with personal life, it would disturb the work-life balance of employees [29]. Individual behavior could be a source of conflict and a source of energy for individuals. If individuals could carry out responsibilities in work and personal life simultaneously, they would feel job satisfaction because the work could be done well in the office without being disturbed by personal or family problems [30].
The women joining the workforce had many consequences, especially for those with family members. Women involving in the workforce had double burden. They were required to be committed to their work, while at the same time they should also give priority to the role in the family as housewives [31]. Having a dual role both as a worker and as a housewife can make women unbalanced and there is a clash between worker responsibilities and the homewife responsibility. Both roles require an equally good performance and can sacrifice a lot for their families if women give priority to work.

Therefore, a combination of family and organizational support would certainly be better at reducing the existing clash of responsibility. Personal and organizational supports were very influential on workers in resolving conflicts of interest between work and personal life. There was a very significant difference between workers who are supported by their families and workers who are not supported by their families [32], [33].

Several studies with a similar concept of job satisfaction and work-life balance on female workers had been investigated by many researchers. Research on relationship among female doctor respondents found a significant positive result [34]. The results with significant relationship were also found among women teachers [35], Banking and education women[36] as well as building industry women[37],[38]. This paper examines in greater detail the relationship between work life balance and satisfaction for working women, based on the description above and previous research.

2 Method

Respondents in this study were women who worked in companies in Yogyakarta. The total number of subjects in this study were 134 people. Respondents who are deemed to have met the subject's criteria are women who work in a company and are over 17 years old.

The job satisfaction scale used was the Job Satisfaction Survey which was adapted from Spector [39]. This scale can measure 9 aspects of job satisfaction, namely aspects of salary, aspects of promotion, aspects of superiors, aspects of additional benefits, aspects of rewards, aspects of work regulations and procedures, aspects of coworkers, aspects of job appraisal itself and aspects of communication.

The scale of this study is an adjusted Fisher, Bulger and Smith work-life balance [29]. The scale comprises 17 items with 6 favorite items and 11 unfavorable items. This measuring tool measures four dimensions of the work-life balance: work interferes with the lives of people (WIPL), work interferes with the work of people (PLIW), work is improved with life (WEPL) and personal life improves with work (PLEW). The model used in the balance of work-life is the Likert scale.

The results of the reliability test of the job satisfaction scale showed a Cronbach's alpha (α) reliability score of 0.930 with a validity score that moved from 0.252 to 0.797. The results of the work-life balance scale reliability test showed a Cronbach's alpha (α) reliability score of 0.795 with a validity score that moved from 0.067 to 0.666.

Hypothesis testing is used to test the validity of a statement statistically. The purpose of hypothesis testing is to establish a basis for determining the decision to reject or accept the truth of the assumptions made. Hypothesis testing is done using Spearman's rho correlational technique when the data are abnormal, while for normal data using Pearson's correlational technique. The hypothesis is accepted if it has a significance coefficient value of p < 0.01.
3 Results and Discussion

3.1 Results

Normality test using Kolmogorov-Smirnov Test indicated that both job satisfaction and work-life balance had significance value $p = 0.200$ ($p < 0.05$). Thus, both variables were normally distributed. Linearity test result showed that job satisfaction and work-life balance had linearity coefficient $F = 19.784$ and significance coefficient $p = 0.000$ ($p < 0.05$). This result showed a linear correlation between job satisfaction and work-life balance. The test hypothesis using rho correlation technique from Spearman indicated correlation coefficient $r = 0.352$, meaningful coefficient $p = 0.000$ and coefficient $r^2 = 0.123$. These results indicated that the relationship between satisfaction at work and balance between work-life in working women was significantly positive. The hypothesis proposed in this study has therefore been accepted. The results also revealed that the effective contribution of work-life balance to job satisfaction was 12.3 percent. This indicated that other factors, about 87.7 percent, contributed to the satisfaction of the study's respondents.

Further analysis was carried out to analyze the correlation between work-life balance aspects and work satisfaction. The results of this test were summarized in Table 1. There have been three considerable and positive correlations with job satisfaction in the work-life balance. Interference in personal life, interference in work and work. The improvement of personal life showed significant correlation between $r = 0.317$, $r = 0.162$ and $r = 0.321$ with respect.

<table>
<thead>
<tr>
<th>Variable</th>
<th>$r$</th>
<th>$p$</th>
<th>$r^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Interference with Personal Life and Job Satisfaction</td>
<td>0.317</td>
<td>0.00</td>
<td>0.10</td>
</tr>
<tr>
<td>Personal Life Interference with Work and Job Satisfaction</td>
<td>0.162</td>
<td>0.03</td>
<td>0.02</td>
</tr>
<tr>
<td>Work Personal Life Enhancement and Job Satisfaction</td>
<td>0.321</td>
<td>0.00</td>
<td>0.10</td>
</tr>
</tbody>
</table>

3.2 Discussions

The purpose of this study was to analyze the relation among working women in Yogyakarta, Indonesia between work-life balance and job satisfaction. The study was conducted with 134 participants. The statistical analysis showed that the distribution of data was normal and that the data was either linear or not straight. The hypothesis in this study was that the relation between job satisfaction and balance between work and life was positive. Based on the results of Pearson correlation testing, a positive relationship was found between work-life balance and job satisfaction.

Earlier studies have shown a good correlation between balance between work and life and job satisfaction [17], [40], [41]. This implied that the higher the balance between work and life, the higher the satisfaction of the worker. Conversely, the lower the balance between work and life, the lower the satisfaction of the respondents. It could therefore be concluded that the hypothesis was accepted in this study.

The results of further analysis on every aspect of the work/life balance showed a significant positive relationship. Work interference with personal life and work interference had a positive and important relation to job satisfaction. This contradicts previous findings showing that interference with personal life has a negative relation to job satisfaction [42]. This means that the greater the interference in the workplace, the greater the job satisfaction and vice versa. The
Improvement in personal life work had a positive and significant relationship to job satisfaction. This was in line with previous studies in Oman [42] and Philippines [35]. The higher the work personal life improvement, the greater the satisfaction of the job and vice versa.

The results also showed that aspects of work-life balance contribute effectively to job satisfaction. Work interference with personal life has contributed 10 percent effectively to the satisfaction of employment. Personal Life Interference with Work has contributed 2.6% to job satisfaction. The improvement in personal life work has provided an effective contribution of 10.3 percent.

4 Conclusion

This study showed that the balance of work-life and job satisfaction among working women in companies X and Y in Yogyakarta, Indonesia was a positive and significant relationship. This meant that the greater the balance between work and life among the respondents, the higher the job satisfaction and vice versa. The limitation of this research was limited problems explored in the research area. Furthermore, distribution of the questionnaire was directly because of the work load of the respondents. The questionnaire was entrusted to the human resource departments of the company in each office. It implied that the researchers could not ensure that all respondents fill out the questionnaire properly and according to their circumstances without bias.

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References


Refugees and the Problems in Indonesia

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Abstract. The existence of refugees in Indonesia requires serious attention. Social conflict can arise due to psychological pressures as people who are not allowed to work when they need the cost of living, should not go to formal school even though the provision of science is expected changing the future, health services are only obtained from NGOs partners UNHCR, also prohibited owning property. This is done by the Indonesian government in order to protect and prioritize the rights of its citizens over foreign nationals. However, as a country that signed The Declaration on Human Rights (although it did not ratify the 1951 Convention and the 1967 Protocol on the Status of Refugees), Indonesia has a moral obligation to help fellow human beings by providing temporary shelter and life support which is certainly not permanent and far from sufficient. The active role from the Security Council of United Nations to immediately realize peace in war conflict areas is the main solution, rather than simply waiting for third countries to raise quotas to accept refugees.

Keywords: Indonesia's refugee problem, world peace

1 Introduction

Basically, every refugee or asylum seeker to another country has the right of safety and security protection. In this study, the authors limit the object of study to refugees, not including internally displaced persons and asylum seekers. The difference in the meaning of the three terms is explained by Iin Karita Sakharina and Kadarudin [1], refugees is a group of people who leave their country (crossing national borders); forced because of their fear of persecution, torture or threats of torture, expulsion, political resistance, or rebels on the grounds of race, religion, nationality and other membership with certain social groups. Internally Displaced Person (IDPs) are people or groups of people who have been forced to flee or leave their homes or places where they used to live primarily as a result of or in order to avoid the effects of armed conflict, vulnerable situations characterized by widespread acts of violence in general, human rights violations and those that do not cross internationally recognized national borders [27]. Asylum seekers are people who request protection and submit an application to UNHCR to be declared a refugee after going through a refugee status determination procedure.

Like Indonesia, as a transit country that implements such protection as a form of implementation of the 1945 Constitution of the Republic of Indonesia, Article 28G paragraph (2) which reads: "Everyone has the right to be free from torture or other degrading treatment and has the right to obtain asylum, politics from other countries". Its implementation as a country that ratifies the The Declaration on Human Rights is stated in Article 28 of the Human Rights Law No.39 of 1999 which states that "Everyone has the right to seek asylum to obtain political protection from other countries." This humanitarian mission was carried out because
the war conflict in the country of origin became the main factor for them fleeing from seeking safety and a new life in another country [2].

However, efforts to improve their lives and future are not as beautiful as hopes, being stranded in a transit country like Indonesia for years as they wait for UNHCR to determine their status, making the refugees very dependent on assistance [3]. As foreigners living in Indonesia without official documents, they have no right to work, have a place to live and get formal education services [4], poor health services even though they should receive more attention during the Covid-19 pandemic [5] make refugees despair [6] and even some who experience psychological disorders [7].

For this reason, the Indonesian government needs to make progressive efforts on refugee handling policies, not limited to the implementation of Presidential Regulation No. 125 of 2016, it is very necessary to emphasize a statement of attitude on the 1951 Convention and 1967 Protocol concerning the handling of refugees, increase cooperation with UNHCR and IOM to realize good benefits for Indonesian citizens and refugees [8]. There are concerns about social problems due to conflicts of interest between local residents (indigenous people) who want a safe and comfortable living environment with refugees who want to survive in the hope of being sent to a third country [9] [10]. The uncertain period of waiting and events experienced during the evacuation journey often causes trauma [11] and various health problems while living in the refugee shelter [12]. As a manifestation of Indonesia's role in actively participating in realizing world peace, it is to encourage the UN Security Council to be more empowered in resolving disputes between countries without using violence, let alone war [13].

2 Method

Data collected from literature study on the legal basis for foreign refugees, articles and online news covering refugee problems in realizing their aspirations to live in a country without war conflicts. The data that has been collected is then analyzed descriptively qualitatively by matching its legal basis with the realities of handling refugee problems at the national and global levels using deductive thinking logic, so that solutions can be constructed for how best the government's efforts should be in dealing with refugee problems.

3 Results and Discussion

3.1. The problems that arise with the existence of foreign refugees for Indonesia

The entry of foreign citizens into Indonesia without official documents certainly raises concerns that it will have an impact on state security, such as bringing and spreading atheism or vice versa, circulating narcotics as an effort to exterminate Indonesia's young generation. Therefore, the Circular of the Director General of Immigration No. IMI-1489.UM.08.05 of 2010 is a shield to protect territorial security from the activities of immigrants who enter Indonesian territory, that they will not be deported as long as they have a refugee certificate issued by UNHCR, are released from the Immigration Detention Center (Rudenim) and their needs will be supported by IOM or UNHCR during the waiting period. As for those whose applications are rejected (as refugees) by UNHCR, they will be detained at the detention center, subject to fines, and/or deported [4].
The lack of awareness of the refugees to maintain the cleanliness of the environment in the location where they live temporarily causes garbage piles that spreads an unpleasant aroma. They set up tents on the sidewalk to live in because the building where they were accommodated (Rumah Detensi Imigrasi/other regional government asset building) no longer fits. This condition has been complained by local residents because the environment has become slum and unhealthy, so they are feared to be a source of disease.

As a country with a population of 268.5 million [14], 26.42 million people or 9.78% with the poor status [15], it is only right that the Indonesian government prioritizes the available funds for poverty alleviation for its citizens, so that not to sign conventions and protocols for handling refugees is a necessity. The limitation of Funding Assistance from The Government of Indonesia is a logical reason for not allocating special funds to support foreign refugees because Indonesia’s status as a transit country so there is no obligation.

For humanitarian reasons, The Government of Indonesia provides temporary housing, namely by transferring the function of Rudenim, which should function as a temporary detention center for foreigners who violate immigration regulations in Indonesia. In terms of health and education, NGOs are partners of UNHCR in Indonesia [16].

### 3.2. Foreign refugees handling by Indonesia government

#### 3.2.1. Strategic efforts

An invention against refugees tossed around the sea or stranded on the mainland territory of Indonesia will be carried out relief efforts by accommodating them in a place that has been provided by the government as a temporary shelter(shelter). In this shelter they will get food, treatment and data collection by UNHCR and accompanying NGOs. In today, UNHCR cooperates with IOM (International Organization for Migration), Dompet Dhuafa, CRS (Catholic Relief Services), CWS (Church World Service), PMI (Indonesia Red Cross), Tzu Chi Foundation, e.g. refugees from Vietnam [17] and Rohingnya [18].

The government conducts patrols around the shelters to ensure it can create a sense of security for the environment around the refugee shelters. This security is a form of anticipation so that there is no social friction between refugees and indigenous peoples, which could arise due to cultural differences and the need for living [19].

Immigration Control by continuously updating the data on the identity and documents of refugees, taking photos and fingerprints. Ensuring refugees are required to report every month to the head of the Immigration Detention House. This is necessary to ensure that no refugee commits acts against the law [20]. The mode of marrying natives needs to be watched out for as a refugee's effort to obtain Indonesian citizen status and stay permanently in Indonesia [21].

#### 3.2.2. Diplomacy efforts

The efforts made by UNHCR have been voluntary return to the country of origin or departure to a third country. These two choices are difficult things to realize. Waiting for the country of origin of the refugees to reach a peaceful situation so that it deserves to be a place of life is like waiting for peace between Israel and Palestine [22]. Likewise, waiting for departure to a third country is like waiting for rain to fall in the Sahara [23]. Therefore, Indonesia together with countries in the ASEAN region must not tire of calling for peace efforts through the UN Security Council [24]. The war conflict which resulted in the absence of peace in their homeland was the main factor triggering the wave of refugees and asylum seekers. The UN Security
Council has the power to resolve disputes in international law that do not require the prior consent of the parties [25]. Likewise, Indonesia needs to affirm to UNHCR that it will continue to help refugees who are stranded (or deliberately stranded or stranded by irresponsible people) in Indonesian territory but that does not mean that they must be able to support them. If third countries only reduce the quota for refugee arrivals for financial and security reasons [26], it would be unfair for the Indonesian government to bear the consequences.

4 Conclusion

Being a refugee is certainly not the main life choice, but the peace situation in a country makes them flee for a new life in another country where no war conflict. Therefore, the Security Council of United Nations should be more active in creating world peace in order to reduce the number of refugees due to war conflicts. Encourage UNHCR to conduct diplomacy with the third country so as not to reduce the quota in accepting refugees according to the original commitment. Refugees are allowed to work in a limited scope to meet the cost of living and under close supervision while awaiting status determination by UNHCR.

References


Analysis of the Selling Value of Tax Objects on Land and Building Tax Revenues

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Abstract. Land and Building Tax is one type of central tax, the collection and imposition of which is largely left to the Regional Government. Analysis of the Sales Value of Tax Objects (NJOP) on Land and Building Tax (PBB) Revenues, and Land and Building Acquisition Fees (BPHTB), to find out more efficient and effective ways in the matter of PBB and BPHTB revenue. Therefore, research on the increase in NJOP on PBB and BPHTB revenue is deemed necessary to obtain valid information as the basis for PBB and BPHTB revenue. This research was conducted in Cibinong Subdistrict, Bogor Regency, with a sample of 180 taxpayers in Ciriung, Cirimekar, and Pondok Rajek Villages which are included in the Cibinong District area. The results showed that the (NJOP) of the earth was strongly influenced by the location of the object and land use, and the NJOP of the building was strongly influenced by the type of building, the area of the building, the year it was built, the roof of the building and the floor, and the NJOP and the building were strongly influenced by the value of the earth per M² land area, and building area. NJOP has an increasing effect on PBB and BPHTB.

Keywords: Land and building tax, taxpayer, tax object

1 Introduction

In the current COVID 19 pandemic, the country’s economy has been experiencing a significant decline in economic growth leading to an economic crisis. Government performs several ways or efforts to immediately increase this economic growth. One of the ways performed is by increasing state revenue and one of the state revenues comes from tax. Undoubtedly, tax is one of the most influential factors in increasing state income at this time.

During the COVID-19 pandemic, increasing domestic tax revenue through the mobilization of tax revenue faces challenges for efforts to restore the State Budget (APBN) and fiscal sustainability through gradually reducing the budget deficit. On the other hand, to overcome the impact of a profound decline in economic growth, the State Budget (APBN) is expected to be able to play a role in generating a fiscal system for the movement of the course of economic activity in society, given that the public and private sectors that have collapsed due to the crisis cannot be expected to play a role in driving the national economy.

Beside the monetary crisis, it is further influenced by the rapid population growth in urban and suburban areas as a natural change, and the unproportional immigrants to the existing land supply. Land as a spatial element is the surface of the earth, which in its utilization includes the body of the earth and water and the space above it, which is only required for the purposes that are directly related to the use of the land [1]. Land has an essential role for human needs,
including a place to live, industry, agriculture, trade, and to place make other living. This population growth increases with the growth in demand for land, while the land supply is highly limited, causing an elevation in the Tax Object Sales Value (NJOP) of the price of land above the fairness.

To increase state revenue, the government issued a law regulating taxation. Land and Building Tax (PBB) is a type of tax that can help both central and regional economies. Therefore, the government issued Law No. 12 of 1985 jo. Law Number 12 of 1994 which regulates Land and Building Tax (PBB) and Law Number 21 of 1997 jo. Law Number 20 of 2000 which regulates Fees for Land and Building Title Transfer Duty (BPHTB) to increase PBB and BPHTB revenue which is expected to significantly help the country’s economy which is currently struggling.

In fact, many aspects have caused the PBB Revenues to be achieved. Lack of socialization to the community performed by the central and local governments in the past years has resulted in less optimal PBB revenue. With such circumstances, the government immediately promoted the socialization of the importance of paying taxes to develop the country, both through print and electronic media. The efforts made by the government are solely to increase PBB Revenues which has a crucial impact on improving the country's economy.

The increasing public awareness in paying taxes causes many taxpayers to start paying taxes, so there is a need for excellent service by the officers of the PBB Service Office in providing services to taxpayers. The knowledge and experience of officers in serving

Based on the description on the background, the problems related to the factors affecting NJOP in PBB Revenue taxpayers are getting better and can reduce business activities performed only for the benefit of the officers themselves. The excellent service and no more practice of Corruption, Collusion and Nepotism is very influential in determining NJOP on PBB revenue.

Meanwhile, the reality that occurs in our lives is that in current conditions, the era is getting more advanced. Therefore, many magnificent buildings are currently built in areas that are considered backward. Many factors significantly influence the increase in NJOP in an area, including (1) usage, (2) access, (3) electricity, (4) drinking water (PAM), (5) telephone, (6) ownership area, (7) distance to crowds, (8) type of building. Based on these ideas, it is deemed necessary to know more efficient and effective ways in the problem of increasing the PBB revenue. Research on the NJOP increase on PBB revenue is considered necessary because it is to obtain valid information as the basis for its determination.

Taxes are contributions to the state that are owed by individuals or a body that is coercive based on law, with no get compensation directly and use it for state needs for the greatest possible prosperity [2]. Taxes are contributions that do not get reciprocal services (counter-achievement) which is directly indicated and used for pay for general expenses [3]. Land and building tax is a tax of a nature the material and the amount of tax payable is determined by the state of the object like earth, land and building. The state of the subject does not determine the amount of tax [4].

Hesti Pratiwi, Muhaimin, Wa Ode Rayyani, in the results showed that the number of taxpayers was greatly increased but taxpayers did not have awareness and compliance with their obligations [5]. This does not have a positive impact in increasing local tax revenue so that the acquisition of percentages and targets and realization of land and building tax revenues experience instability in achieving the targets set by the government. Rendra Kurnia Wardana, Dian Masyita, V. Santi Paramita, showed that assessment sales ratio test results showed that the value of land and buildings is below from the market value [6]. Meiriska Febrianti showed that the number of taxpayers have an effect on realization of property tax [7]. The contribution of this research is to determine the factors that affect the NJOP of the land and building that can
be reference to other researcher and to determining the tax standard for land and building owners in an area.

Based on the description on the background, the problems related to the factors affecting NJOP in PBB Revenue can be formulated as follows: (1). What factors influence land class or land value in determining the NJOP of the land in Cibinong area?, (2). What factors influence the building class or building value in determining the NJOP of the buildings in Cibinong area? (3). What factors affect the NJOP of land and buildings in Cibinong area?

Based on the above problems, this study aims to: (1). To find out the factors that influence land class or land value in determining the NJOP of the land in Cibinong area, (2). To determine the factors that influence the building class or building value in determining the NJOP of the Cibinong area building, and (3). To determine the factors that affect the NJOP of the land and buildings in the Cibinong area.

2 Method

This research was designed as a descriptive correlational study [8]. Data analysis in this study using multiple linear regression. In this study, secondary data were collected, then searched in the field as primary data.[9] Secondary data collected includes data relating to the condition of land and building taxes. The data was obtained from the Revenue Service of Bogor Regency, the Land and Building Tax Service Office of Cibinong, the Statistical Office of Bogor Regency.

The research location is in Pondok Rajeg Village, Cibinong District, Bogor Regency, West Java Province. Secondary data collection was performed at the Land and Building Tax Service Office of Cibinong.

The population in this study were 78,621 taxpayers in Cibinong District, Bogor Regency. In this case, all tax objects have the same opportunity to be used as research samples. To determine a sample of the population of three selected villages in Cibinong District, Bogor Regency of 11,869 taxpayers, the author used a formula developed by Frank Lynch of 192 taxpayers in each village, determined using the formula from Nazir [10].

To determine the factors that affect the sale value of land and building tax objects (thousands of rupiah per M²), the model is as follows:

\[
Y_1 = a + b_1 x_1 + b_2 x_2 + \ldots + b_{16} x_{16} + b_{17} x_{17}
\]

Note:

Y1 = sale value of land tax objects (thousands of rupiah per M²), b1 = Constant, X1 = Object Location, X2 = ZNT, X3 = Land use, X4 = Electricity, X5 = Building type, X6 = Building condition, X7 = Year built, X8 = Building construction, X9 = Number of floors, X10 = roof of the building, X11 = Building wall, X12 = Ceiling, X13 = Floor, X14 = Power class, X15 = AC, X16 = Earth's area (M²) and X17 = Building Area (M²)

3 Results and Discussion

3.1 Factors affecting the tax object sales value of land (Y1)

From the measurement results of the correlation coefficient, it can be seen that there is a significant correlation between the Location of the object (X1) and Land use (X3) and the
Selling Value of the Land Tax Object (Y1) in Cibinong District. From the coefficient of determination, it can be seen that the location of the object (X1) and the use of land (X3) together on the Selling Value of the Land Tax Object (Y2) in Cibinong District is greater when compared to the contribution of epsilon factors to the Selling Value of the Object Land Tax (Y2) in Cibinong District. With the results of measurement and multiple regression analysis in Table 1, it can be seen that in fact the contribution of the influence of the Object Location variable (X1) is 62.31 greater than the contribution of the Land Use variable (X3) of 43.08 to the Selling Value of Land Tax Objects (Y2). However, the difference in the magnitude of this contribution is very slight.

Table 1. Results of the Calculation of Regression Analysis on the Tax Object Sales Value of Land

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>-186,919.18</td>
<td>14,753.09</td>
<td>-12.67</td>
<td>0.00</td>
</tr>
<tr>
<td>Object Location (X1)</td>
<td>62.31</td>
<td>7.75</td>
<td>0.52</td>
<td>8.04</td>
</tr>
<tr>
<td>Land Use (X3)</td>
<td>43.08</td>
<td>7.94</td>
<td>0.35</td>
<td>5.43</td>
</tr>
</tbody>
</table>

a Dependent Variable: Tax Object Sales Value of Land Per M2 (Thousands)

Therefore, it can be explained that:

- Based on the regression, it turns out that the Tax Object Sales Value of Land per M² (Y1) is very significantly influenced by the Object Location (X1) and Land Use (X3), while other factors are not significantly different in affecting the Tax Object Sales Value of Land per M² (Y1). Based on the measurement of multiple regression coefficients, it can be explained that the regression equation is:

\[ Y_1 = -186,919.18 + 62.31 X_1 + 43.08 X_3 \]

- The effect of the object location (X1) on the Tax Object Sales Value of Land (Y1) is very significant, indicating that every increase in the object location of one level, for example the object is located on a dirt road to a stone road or from a stone road to an asphalt road and so on, will increase the Tax Object Sales Value of Land for IDR 62,310.00 per M².

- The effect of Land Use (X3) on the Tax Object Sales Value of Land (Y1) is very significant, indicating that every increase in Land Use (X3) of one level, for example from rice fields to dry fields or from moor to villages and so on, will increase the Tax Object Sales Value of Land of IDR 43,080.00 per M².

3.2. Factors affecting the tax object sales value of buildings (Y2)

Based on the results of hypothesis testing, it is proven that the Selling Value of the Building Tax Object (Y2) is very significantly influenced by the condition of the building (X6), year it was built (X7), building construction (X8), ceiling (X12), floor (X13), and class. electric power (X14). With multiple measurement results, it can be seen that it turns out that the contribution of the influence of the ceiling variable (X12) is the largest when compared to the others, while
the contribution of the year built variable (X7) to the Selling Value of the Building Tax Object (Y2) is the smallest.

Table 2. Results of the calculation of regression analysis on the Tax Object Sales Value of Buildings

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>-8,579.43</td>
<td>1,415.78</td>
<td>-6.06</td>
<td>0.00</td>
</tr>
<tr>
<td>Building Condition (X6)</td>
<td>52.77</td>
<td>7.54</td>
<td>0.28</td>
<td>6.99</td>
</tr>
<tr>
<td>Year of Construction (X7)</td>
<td>4.27</td>
<td>.71</td>
<td>0.22</td>
<td>5.96</td>
</tr>
<tr>
<td>Building Construction (X8)</td>
<td>27.90</td>
<td>7.76</td>
<td>0.12</td>
<td>3.59</td>
</tr>
<tr>
<td>Ceiling (X12)</td>
<td>55.18</td>
<td>10.81</td>
<td>0.18</td>
<td>5.10</td>
</tr>
<tr>
<td>Floor (X13)</td>
<td>26.27</td>
<td>4.84</td>
<td>0.21</td>
<td>5.42</td>
</tr>
<tr>
<td>Electrical Power Class (X14)</td>
<td>53.04</td>
<td>5.66</td>
<td>0.31</td>
<td>9.30</td>
</tr>
</tbody>
</table>

a Dependent Variable: Tax Object Sales Value of Buildings (Thousands/M2)

The multiple regression results in table 2 can be explained that:

- Based the regression, it turns out that the Tax Object Sales Value of Buildings (Y2) is very significantly influenced by the building condition (X6), year of construction (X7), building construction (X8), ceiling (X12), floor (X13), and electrical power class (X14), while other factors do not significantly affect the Tax Object Sales Value of Buildings (Y2). Based on the measurement of multiple regression coefficients, it can be explained that the regression equation is:
  \[ Y_2 = -8,579.43 + 52.77 X_6 + 4.27 X_7 + 27.90 X_8 + 55.18 X_{12} + 26.27 X_{13} + 53.04 X_{14} \]

- The results of the measurement of the correlation coefficient for the independent variable X together with the dependent variable Y show the value of \( R = 0.91 \). The results of the calculation of the coefficient of determination of the independent variable X with the dependent variable Y show the value of \( r^2 = 82.70 \% \) and epsilon of 27.30 \%

- The effect of building condition (X6) on the Tax Object Sales Value of Buildings (Y2) is very significant. indicating that any increase in the condition of the building of one level. for example from bad to medium or from moderate to good. will increase the Tax Object Sales Value of Buildings by IDR 52,780.00 per M².

- The effect of the year of construction (X7) on Tax Object Sales Value of Buildings (Y2) is very significant. indicating that every year of construction of 1 year or the age of the building is 1 year earlier. it will increase the Tax Object Sales Value of Buildings by IDR 4,270.00 per M².

- The effect of building construction (X8) on the Tax Object Sales Value of Buildings (Y2) is very significant. indicating that every increase of building construction of one level. for example from wood to brick or from brick to concrete. will increase the Tax Object Sales Value of Buildings by IDR 27,900.00 per M².

- The effect of the ceiling (X12) on the Tax Object Sales Value of Buildings (Y2) is very significant. indicating that every increase in the ceiling of one level. for example from no ceiling to plywood or from plywood to acoustic. will increase the Tax Object Sales Value of Buildings by IDR 55,180.00 per M².

- The effect of floor (X13) on the Tax Object Sales Value of Buildings (Y2) is very significant. indicating that every increase of floor of one level. for example from
cement to PC tiles or from PC tiles to terrazzo and so on. will increase the Tax Object Sales Value of Buildings Objects by IDR 26,270.00 per M².

The effect of the electrical power class \((X_{14})\) on the Tax Object Sales Value of Buildings \((Y_2)\) is very significant. indicating that every increase in the electrical power class of one level, for example from 450 VA to 900 VA or from 900 VA to 1200 VA and so on. will increase the Tax Object Sales Value of Buildings for IDR 53,050.00 per M².

### 3.3. Factors affecting the tax object sales value of land and buildings \((Y)\)

Based on the results of hypothesis testing, it is proven that the Selling Value of Land and Building Tax Objects \((Y)\) is very significantly influenced by the Selling Value of Land Tax Objects \((Y_1)\), Land Area \((X_{16})\), and Building Area \((X_{17})\). With multiple measurement results, it can be seen that in fact the contribution of the influence of the building area variable \((X_{17})\) is the largest when compared to the others, while the contribution of the land area variable \((X_{16})\) to the Selling Value of the Land and Building Tax Object \((Y)\) is the smallest.

#### Table 3. Results of the Calculation of Regression Analysis on the Tax Object Sales Value of Land and Buildings.

<table>
<thead>
<tr>
<th></th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(B)</td>
<td>Std. Error</td>
<td>(t)</td>
<td>(Sig.)</td>
</tr>
<tr>
<td>(Constant)</td>
<td>-211,818.65</td>
<td>23,530.86</td>
<td>-9.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Land Area ((X_{16}))</td>
<td>159.58</td>
<td>11.54</td>
<td>13.82</td>
<td>0.00</td>
</tr>
<tr>
<td>NJOP of Land ((Y_1))</td>
<td>684.67</td>
<td>95.71</td>
<td>7.15</td>
<td>0.00</td>
</tr>
<tr>
<td>Building Area ((X_{17}))</td>
<td>1,211.75</td>
<td>108.36</td>
<td>11.18</td>
<td>0.00</td>
</tr>
</tbody>
</table>

a Dependent Variable: NJOP of Land and Buildings (Thousands)

The multiple regression results in table 3 can be explained that:

- Based on the regression, it turns out that the Tax Object Sales Value of Land and Buildings \((Y)\) is very significantly influenced by the Tax Object Sales Value of Land \((Y_1)\), Land Area \((X_{16})\), and Building Area \((X_{17})\), while other factors are not significantly different in influencing Tax Object Sales Value of Land and Buildings \((Y)\). Based on the measurement of multiple regression coefficients, it can be explained that the regression equation is:

\[
Y_2 = -211,818.65 + 159.58 X_{14} + 684.68 Y_1 + 1,211.76 X_{17}
\]

- The results of the calculation of the correlation coefficient for the independent variable \(X\) together with the dependent variable \(Y\) show the value of \(R = 0.87\). The results of the measurement of the coefficient of determination of the independent variable \(X\) with the dependent variable \(Y\) show the value of \(r^2 = 76.30\%\) and epsilon of 23.70 %.

- The effect of the Tax Object Sales Value of Land \((Y_1)\) on the Tax Object Sales Value of Land and Buildings \((Y)\) is very significant. indicating that each increase in the Tax Object Sales Value of Land by one thousand rupiah per M² will increase the Tax Object Sales Value of Land and Buildings by IDR 159,580.00 per M².

- The effect of land area \((X_{16})\) on the Tax Object Sales Value of Land and Buildings \((Y)\) is very significant. indicating that every increase in land area of 1 M² will increase the Tax Object Sales Value of Land and Buildings by IDR 684,680.00 per M².
The effect of Building Area ($X_{17}$) on the Tax Object Sales Value of Land and Buildings ($Y$) is very significant, indicating that every increase in Building Area of 1 M$^2$ will increase the Tax Object Sales Value of Land and Buildings by IDR 1,211,760.00 per M$^2$.

4 Conclusion

Based on the results of research and data processing, the Tax Object Sales Value of Land per M$^2$ is strongly influenced by the Object Location and Land Use. The Tax Object Sales Value of Buildings per M$^2$ is strongly influenced by the building condition, year of construction, building construction, ceiling, floor, and electrical power class. The Tax Object Sales Value of Land and Buildings is strongly influenced by the Tax Object Sales Value of Land per M$^2$, land area, and building area.

References

[1] Undang-Undang No. 5 Tahun 1960 Tentang Ketentuan Pokok-pokok Agraria (UUPA)
[2] Undang-undang Republik Indonesia No 28 Tahun 2009 Tentang Pajak Daerah dan Retribusi Daerah
Analysis of Diabetes Mellitus Prevalence Number of the People of Horai–Quic, Maubesi, Ainaro, Timor Leste and its correlation with Their Lifestyle

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Abstract. Diabetes Mellitus is metabolic disorder disease where body prevents to convert carbohydrate into energy. This disease is mainly indicated by excessive glucose level in blood causing medical complications that may lead to deadly effect. The prevalence number of this disease increases persistently and more than 45% of the cases are undiagnosed. People of Timor Leste have lifestyle that strongly leads to the risk of suffering from Diabetes Mellitus. Some people do not receive proper formal education, some of them are jobless and their lifestyle is not quite healthy. In term of medical literacy, people of Timor Leste do not have sufficient knowledge on this subject. Since Diabetes Mellitus may not indicate significant physical problem, people who starts having this disease may not feel any serious problem. On the other hand, the facility of medical service is not really sufficient to provide initial diagnose for Diabetes Mellitus and, as a result, some people are not aware that they are suffering from the disease. A test was carried for the people of Horai-Quic, Maubesi, Ainaro, Timor Leste, aged 25 – 50 year. From the 47 people participating the test, it was identified that 40 people (85.11%) tend to suffer from Diabetes Mellitus. Some lifestyles are described and analyzed, and their impact on the possibility of having the disease will be highlighted.

Keywords: Diabetes mellitus, prevalence number, diagnose, lifestyle

1 Introduction

In the recent years, the number of people living with diabetes is considerably high. In the global level, this number has quadrupled in the past three decades [1]. About 1 from 11 adults currently suffer from this disease worldwide, and 90% of them are with type 2 Diabetes Mellitus (T2DM). In terms of region, Asia is the area where the prevalence number of T2DM rapidly increases where China and India are the two top epicenters. People with T2DM mostly have at least one complication problem. Cardiovascular complications are the major reason of morbidity and mortality in these patients [2]–[4]. More generally, Diabetes Mellitus is the ninth major cause of death.

According to the IDF Diabetes Atlas 2017, 425 million people in the world suffer from the disease. This number is equivalent with 8,8% people aged 20-79 year. If the age range is extended to 18 - 99 year, this number increases to 451 million. In term of distribution, people with diabetes are about 79% living in developing countries with low to middle income. Based on the 2019 estimates, by 2030 a projected 578.4 million adults aged 20 -79 years will be living
with diabetes. The prevalence number of people with diabetes increases persistently and, if this trend continues, it is predicted that at 2045 about 629 million people aged 20 – 79 will suffer from diabetes. This will increase to 693 million if the age range is expanded to 18 – 99 [5].

Diabetes Mellitus is metabolic related disease due to less insulin production, lower body response to insulin, other hormones influencing insulin performance and dysfunction of β pancreas cell [6]–[8]. Diabetes Mellitus is indicated with the high level of glucose level in the blood, caused by insulin deficiency, insulin resistance or both [9]. High glucose level in the blood may cause nerve damage, destruction of blood vessel, heart disease, high blood pressure, stroke, kidney disfunction, blindness, and dental disease [5]. Some factor may affect Diabetes Mellitus such as lifestyle, medical history, and genetic aspect. Age is no longer considered as the main reason of having this disease according to the fact that this may happen to people with age disparity [3].

Diabetes Mellitus may be classified based on the reason behind. One of the types is Diabetes Mellitus Type 1, which is caused by autoimmune disease where the immunity destructs the cells of Langerhans that produces insulin. Therefore, pancreas is unable to produce insulin and, as a result, the body does not have sufficient insulin leading to the increase of glucose level in the blood. In general, Diabetes Mellitus Type 1 happens on young people less than 40 years. Diabetes Mellitus Type 2 is the dominant type of this disease where people are suffering from. It is about 90-95% of the disease in the world and happens at elder people. The reason of this exact reason of the disease is undetermined yet experts believe that this is combination of genetical and environmental factors [10]. Gestational Diabetes Mellitus is the 3rd type of this disease happening only to pregnant woman. This may lead to problem if an immediate treatment is not taken. A fast response for this disease may save the mother and her baby. Therefore, a complete recovery is expected after childbirth.

It may be noted that, at the beginning stage, people with Diabetes Mellitus do not indicate any sign of suffering the disease. For some people they are not even aware that they have the disease after some time. This is due to no significant indication may be detected although the disease has happened for long time. This circumstance may lead to dangerous situation since the disease has caused complications for the patient. Therefore, understanding the initial signs of the disease will certainly save the people.

It is unfortunate that based on the fact, more than half of people with diabetes are undiagnosed. There are some signs that people should be aware that if they experience one of these, since they may suffer from the disease. These include: feeling tired and fatigue, often feeling thirsty, very often urinate, very quick getting hungery, very often getting infection on skin and vagina, stomatitis, urethritis, numbness, gingivitis, blur vision, long time recovery for an injured, sudden weight drop, and -for man- sometime get impotence. To avoid a more serious problem, when getting one of the indications, a consultation with doctor is required.

Although genetic predisposition partly determines individual susceptibility to T2DM, an unhealthy diet and a sedentary lifestyle are important drivers of the current global epidemic; early developmental factors (such as intrauterine exposures) also have a role in susceptibility to T2DM later in life. Preventing the disease is better than curing it. It is necessary to minimize the risk of suffering from Diabetes Mellitus. Since Diabetes Mellitus is closely related with lifestyle, to improve the life quality and to avoid the disease, moving to the healthier lifestyle is necessary. This include controlling the consumption pattern, regular exercise, weight control, consume more vegetable and fruit, reduce consuming sugar, and having enough rest.

This paper presents the results of research on investigating the lifestyle of Timor-Leste people and its relationship with the possibility of suffering from Diabetes Mellitus. Appointment of this location is based on some considerations, including the research regarding the topic on
this area is very rare, the people lifestyle may be used to confirm that this is correlated with the possibility to have DM, the lack of medical service may lead to the undiagnosed DM. The research was carried out by observation of people daily life and the test of blood glucose level. The result will be presented to confirm that more than half of respondents were having glucose level more than maximum allowable limit.

1.1 Diabetes mellitus and lifestyle

Diabetes Mellitus (DM) is a medical problem related with metabolic disorder due to several reasons including genetic factors, age, smoking, alcohol consumption, lack of physical activity and unbalanced diet. Diet settings to prevent and recover diabetes is recommended by taking foods that are low in sugar, containing a lot of fiber and consume more fruits and vegetables that contain vitamin C. Vitamin C serves as an antioxidant that can support DM recovery.

If the people's lifestyle is not healthy, they can have the probability to suffer from Diabetes Mellitus. To prevent and recover Diabetes, it is necessary to consider the lifestyle that must be changed to a healthy lifestyle, including:

1.1.1 Healthy diet

A healthy diet for DM patients should consume food containing fibber, fish rich with omega-3 and good fats. To minimize the risk of diabetes they should consume whole grains, vegetables and fruits. The benefits of fibber is to help digesting food and to help control blood glucose level. The food that contains high fibber includes fruits, vegetables, nuts, and wheat. The beverages with high sugar ingredient should also be avoided [1].

1.1.2 Balanced diet

Diet settings every day must be well planned to be balanced between fruits, vegetables, protein and healthy fats. So that blood glucose levels will remain stable [7].

1.1.3 Setting meal portions

In the management of DM, controlling carbohydrate consumption is important because carbohydrates can increase blood glucose level. For DM patients who have insulin injection, the amount of carbohydrates in the diet must be calculated so that the meal portion is adjusted based on the needs of each patient differently, not more than the dosage.

1.1.4 Exercise

Physical activity in changing lifestyle needs to be done, but it is according to the patient's condition. For example, walking, jogging, doing household works and farming in the garden. Physical exercise may convert carbohydrate into energy and therefore it helps the body to have insulin hormone secretion processing the carbohydrate.

1.1.5 Stop smoking

For people with type 2 Diabetes, it is advisable not to smoke because it can increase the chance of having a heart attack, stroke, kidney disease.
1.1.6 **Avoid alcohol**

DM patients should not consume alcohol because it can raise blood glucose levels which make their condition worse. On the other hand, alcohol can cause complications.

By following a healthy lifestyle, it is expected that it can prevent the occurrence of DM and can improve the condition of patients who are already suffering from DM. Moreover, it will not cause further complications [11].

1.2 **The lifestyle of Timor-Leste people**

East Timor or Timor-Leste is an island country in Southeast Asia. East Timor lies between latitudes 8° and 10°, and longitudes 124° and 128° E. It covers the eastern half of the island of Timor, the nearby islands of Atauro and Jaco, and Oecusse, an exclave on the northwestern side of the island surrounded by Indonesian West Timor. Australia is the country’s southern neighbor, separated by the Timor Sea. The area of the country is about 14,919 km² (5,760 sq mi). East Timor has an exclusive economic zone of 70,326 km² (27,153 sq mi). East Timor recorded a population of 1,183,643 in its 2015 census. Much of the country is mountainous, and the climate is tropical and generally hot and humid. It is characterized by distinct rainy and dry seasons.

The economy of East Timor is a market economy depending on exports of a few commodities. The country's economy is reliant on government spending and, to a lesser extent, assistance from foreign donors. A small funding is provided for development of villages, which still rely on subsistence farming. As of 2012, nearly half the East Timorese population was living in extreme poverty. Private sector development has lagged due to human capital shortages, infrastructure weakness, an incomplete legal system, and an inefficient regulatory environment. After petroleum, the second largest export is coffee. The agriculture sector employs 80% of East Timor's active population. According to data gathered in the 2010 census, 87.7% of urban (321,043 people) and 18.9% of rural (821,459 people) households have electricity, for an overall average of 38.2% [12].

After achieving independence, East Timor had a high illiteracy rate, with 55% of women and 46% of men illiterate. Approximately 18% of the adult population had achieved secondary education and approximately 1.4% of them had an academic degree or achieved other higher education, nearly all of whom resided in urban areas, primarily the capital Dili. Attempts to improve education services face challenges in the form of a lack of educated and experienced teachers. Continuing high fertility rates also translates to greater strains on the government to increase education budgets. However, problems remain as the quality of education was deemed secondary to the need to increase enrollment in East Timor.

Another problem in improving education levels is economic conditions of the people. Due to the high proportions of the people living below the poverty line and high number of family with many children, the direct costs of schooling is significant for families. Lack of financial capability to send their children to school implies the difficulty to increase enrollment rates in Timor-Leste. Furthermore, some parents seem to be disappointed with the low education quality and therefore may not even be interested to send their children to schools. The inaccessibility of schools with sufficient facilities adds to the problem of providing adequate education for the children. Furthermore, schools are located far away from homes and, together with low quality of schools, will prevent early enrollment or lead to early drop-outs [12].

Apart from the aforementioned description, the people of Timor-Leste are very kind. They friendly welcome the guest coming to their place, particularly to present some kind of food. It
may even be said that the number of foods provided for the guest is quite a lot. It may represent their habit that they normally have a lot of food. It is further confirmed that when they order the food in restaurants the quantity of food is about double compared with that normally consumed by Indonesian People. It happens in a number of restaurants, since when we order the food, the quantity of the food is big, which is enough consumed by two Indonesian people.

From this situation, it can be predicted that their habit on having food may lead to suffer from Diabetes Mellitus. People of Timor-Leste have less physical activity and some of them have no permanent job. Having excessive food in one hand and doing less physical activity on the other hand will lead them to have Diabetes Mellitus very quickly. As previously mentioned, that more than half of people with Diabetes Mellitus are undiagnosed. The number of medical service in Timor-Leste is about limited. Besides the equipment and facility that is inadequate, this medical service is not always open. Their location is also far while the public transportation service is not always available. These conditions make the people of Timor-Leste have minimum access to have their medical condition regularly checked. On the other hand, their knowledge about Diabetes Mellitus is limited such that they can anticipate preventing the disease. Since at the beginning stage this disease does not give any physical effect, they feel that everything is alright and nothing to worry about the disease. However, this disease will continue to achieve more serious level that may affect some medical complications. Considering the conditions, some attempts may be offered for the people of Timor-Leste including educating them to have better lifestyle to avoid Diabetes Mellitus and providing medical check to identify the possibility to suffer from the disease. These activities were carried for the people of Horai-Quic, Maubesi, Ainaro, Timor-Leste.

Ainaro is one of 13 municipalities of Timor-Leste, in the southwest part of the country. Based of 2010 census, the number of population at this district is 59,175 people occupying the area of 804 km². The capital of this district is city of Ainaro, a small mountain town [13]. The place of Ainaro is quite nice and natural. It has a great abundance of rivers and fertile terrain for agriculture. It has a coastal area, on the Timor Sea, but also mountainous zones, including the highest point in East Timor, Mount Ramelau (2,960 m), also known as Tatamailau, which lies near the border with Ermera. In this place, organic coffee and cinnamon are grown by people as the main commodities. People of Ainaro accept the religion of Catholic, Protestant and Islam and they live side by side.

2 Method

This research was conducted by the department of Hospital Administration, Kusuma Husada Medical Higher Institution Indonesia in collaboration with Universidade Oriental de Timor Lorosa’e (UNITAL). This research was performed in the form of observational study using cross-sectional method. This method was appointed since the measurement of variables is only done once at a specific time [14]. The reason is due to the researchers from Indonesia had limited time to visit the place and meet the participants. The method is also proven to be suitable to describe the correlation between variables based on instantaneous measurements/observations. It may be noted that there is no need to measure all subjects at the same time. The correlation between variables may be constructed from their status at the observation time. This method includes the following steps:

a. Constructing the research questions and the related hypotheses,
b. Identifying independent and dependent variables,
c. Assigning research subjects (sample),
d. Carrying out measurements,
e. Analyzing the measurement results.

This activity involved some people of Horai-Quic as participants. They will get a presentation about Diabetes Mellitus and other related topics. They will also get the medical check on the level of blood glucose. It may be noted that the distance to the place from Dili is about 3 hours travelling by car. The road to the place is not quite good causing the journey takes longer time. The people of Horai-Quic life at some distance each other and dominantly life far from the venue of activities. Therefore, the number of participants is not high as expected.

The objectives to run the activities are:

a. Improving the knowledge of people of Horai – Quic, Maubesí, Ainaro, Timor Leste on DM therefore they enable preventing the disease,
b. Improving awareness to have better lifestyle to prevent Diabetes Mellitus,
c. Initial Diagnose on DM for the people and consultation on how to recover the disease.

The result of medical check will be analyzed to quantify the people who have glucose level 126 mg/dL or more. This number is based on American Diabetes Association 2020 for fasting condition [15]. The results are also used to give them advice what to do for avoiding any worse condition. Once they get the knowledge about Diabetes Mellitus and get the glucose level checked, they will anticipate not to suffer from the disease. They will also change their lifestyle better. They are also expected to spread information to the community about DM and how to anticipate suffering from the disease.

3 Results and Discussion

3.1 Results

For this research the number of participants coming for the activity was 47 persons including 26 males and 21 females, aged from 15 to 50 years. At the beginning, a presentation is given to the participants about Diabetes Mellitus and the factor of lifestyle affecting the occurrence of the disease. It might be described here that the people attending the presentation were very enthusiastic. Fig. 1 shows the participants of this program. From this activity, it may be seen that the people are very interested. It is not all the things about DM that they fully understand, and the presentation is beneficial for them. In particular, about the influence of lifestyle on the probability to suffer from the disease.

After getting the presentation about Diabetes Mellitus, the participants can proceed to the medical check on blood glucose level. For this purpose, the sample from their blood is taken and checked. The activity of taking the blood sample is shown in Fig. 2. For the activity of blood test, they were happy, even it seems to be new for them. The result of blood test is given in Table 1. The graphical presentation from the data is shown in Fig. 3. It may be observed that majority of blood glucose level of participant is over the borderline of 126 mg/dL.
Along with taking the blood sample, the team did some interview and discussion with the participant regarding their habit and lifestyle. From this activity a set of primary data may be obtained for analysis. The blood test and interview are aimed to determine the prevalence number of Diabetes Mellitus and to describe the relationship between lifestyle and the possibility to suffer from the disease.
The test on blood glucose level for the people of Horai-Quic provides the result that on average the level is higher than the border line. Classification based on gender gives the result that from 26 male participants, 21 of them have the blood glucose level higher than 126 mg/dL. For female participant, there are 21 participants and 19 of them are with blood glucose level more than 126 mg/dL. For the total 47 participants, 40 of them have the glucose level higher than the borderline. This is equivalent with 85.11%. The summary of blood test results is given by Table 2 showing that on average the blood glucose level of the participants is higher than borderline.

<table>
<thead>
<tr>
<th>Table 1. The result of blood glucose level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant ID</td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>1</td>
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<tr>
<td>2</td>
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<tr>
<td>24</td>
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<tr>
<td>25</td>
</tr>
<tr>
<td>26</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 2. The summary of blood glucose level test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td>Overall</td>
</tr>
</tbody>
</table>
It may again be stated that this research was conducted due mainly to the minimum research about the prevalence number of DM for the people of Timor-Leste. Therefore, no sufficient information is available in publication about this disease at Timor-Leste. This research is therefore aimed to provide information about the DM prevalence number of Timor-Leste people.

3.2 Discussion

The results of the blood glucose test carried out in the Horai-Quic, Maubesi, Ainaro, Timor-Leste communities were quite high, i.e. 85.11% that the blood glucose was higher than the borderline of 126 mg/dL. With the results of laboratory assessment conducted at the time, it shows that many people have the probability to suffer from Diabetes Mellitus. This is due to the low level of education at the region, and also half of the population of Timor Leste is still illiterate so that information about Diabetes Mellitus is still lacking and very much needed. The enthusiasm of the community was seen by the large number of people who came, following the whole series of events until it was finished, no one left the venue before the event over. During the question and answer section, many of them asked questions.

The habits of the people of Timor Leste in terms of consumption patterns lead to Diabetes Mellitus. In the daily life of the people in Timor Leste they eat quite a lot. On some opportunities to eat in restaurants, it was found that they eat big portion of foods, maybe about twice of the food consumed by Indonesian. Many people embrace Catholicism and Christianity, and they consume pork. The pig is a livestock as a symbol of the establishment of the population. With this lifestyle, the energy is not used for activities so that people have the probability to suffer from Diabetes Mellitus.

Diabetes Mellitus initially did not cause significant symptoms and signs, so that people did not realize that they had a big possibility for living with diabetes mellitus. The consumption pattern and lifestyle that are not modified or changed may lead to suffer from Diabetes Mellitus. Due to the lack of medical personnel and a lack of knowledge, the people of Timor Leste are unable to immediately aware about the disease and change their habits. An unhealthy lifestyle is also found in Timor Leste, namely the large number of people who smoke during the activity.

If this situation continues, it is possible that the prevalence number of Diabetes Mellitus may not be controlled. People do not realize that the disease at this time can occur due to unhealthy diet and lifestyle. In addition, the lack of adequate health facilities has another problem for people who need health information, especially about Diabetes Mellitus. In Horai-Quic, there are health service centers such, but they open about once a month. Therefore, for those that need health services, they have to go to the health service at the city. It may require difficult transportation because the location is mountainous, and the roads are not really good. Meanwhile, the ideal health facility for Diabetes Mellitus should also be equipped with special hospice beds, as reported by Sodiq et al. [16].

4 Conclusion

The knowledge enhancement followed by medical assessment have been carried for the people of Horai-Quic, Maubesi, Ainaro, Timor-Leste. These are aimed to identify the rough prevalence number of Diabetes Mellitus and to draw the relationship between the lifestyle and the probability of suffering from Diabetes Mellitus. It was observed that the people of Timor-
Leste -in general- have food more than other people. The presentation about the disease and the related topics carried out for the people of Horai-Quic seemed to be useful and they were interested. Medical assessment for 47 participants identified 40 of them having blood glucose level higher than 126 mg/dL (85.11%). It was discovered that they are not aware that they suffering from Diabetes Mellitus since no physical problem that they are experiencing. This confirms the previous researches that more than half of people with Diabetes are undiagnosed. It might also be suggested that lifestyle has close relationship with suffering from Diabetes Mellitus and moving toward healthier lifestyle is therefore necessary. This will prevent the disease as well as recover it, for those already suffering from the disease.

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References


Factors Causes and Forms of Juvenile Delinquency in Magelang Police Station

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Abstract. The main problem in this research is juvenile delinquency which is getting more serious and troubling for many parties, especially in the Magelang Police jurisdiction which handles many juvenile delinquency cases. This study uses an empirical method with a research approach, namely the case approach. The method of analysis conducted by research using qualitative descriptive analysis. Based on the results of data analysis, it shows that: 1) the factors causing juvenile delinquency in Magelang District are social media factors- social environmental factors- family factor, 2). The forms of juvenile delinquency in Magelang District are sexual intercourse with children, brawl, violence against children, theft, appropriation, fraud or embezzlement, destruction, negligence leading to death, child abuse, beatings, sexual immorality, animals, 3). The efforts to overcome juvenile delinquency carried out by the Magelang Police are preventive measures: providing counseling and coaching in schools- conduct regular raids, patrols and guards at schools and collaborate with the community and stakeholders- in collaboration with the school by holding pesantren kilat.

Keywords: Factors, form, juvenile delinquency

1 Introduction

Juvenile delinquency is now often felt in various countries in the world, including Indonesia. Society has paid particular attention to juvenile delinquency issues since the establishment of the juvenile court in 1899 in Illinois, United States [1]. The juvenile delinquency condition in Indonesia is considered to have exceeded reasonable limits [2]. Juvenile delinquency occurs not only in cities, but in rural areas [3][4]. Juvenile delinquency can be motivated from various aspects as a whole, not just one aspect [5]. Current forms of juvenile delinquency, such as running away from home, carrying sharp weapons, speeding on the streets, can even take the form of murder, robbery, rape, drug use, and free sex [6][4]. Prevention of juvenile delinquency needs to be done from an early age to make it easier to prevent [7].

Juvenile delinquency in Magelang regency currently includes the murder of fellow vocational school students and three students stabbing during a brawl [8][9]. The National Narcotics Agency (BNNK) Magelang said, early 2020 there were 30 cases of drug abuse among 20 students [10]. Some of these juvenile delinquency cases are a small example of the various kinds of juvenile delinquency in Magelang Regency recently. The crimes they commit are generally accompanied by mental elements with subjective motives, namely to achieve an object.
accompanied by violence. In general, these children and adolescents are very selfish and like to abuse and exaggerate their self-esteem.

Research conducted by Rahmat Budi and Fitriani stated that the system built in handling crimes committed by children and adolescents is currently unstructured [11]. Research conducted by Dadan Sumarna et al stated that there are internal factors in the form of identity crisis and weak self-control, while external factors are in the form of a lack of attention from parents [1]. According to Siti Fatimah and M Towil Umuri, one of the most dominant factors causing juvenile delinquency is the social factor of playmates [12][13]. Research conducted by Amelia Dwi Syifaunnufush and R. Rachmy on juvenile delinquency conducted by students of SMK Piri 1 Yogyakarta showed a relationship between character strength and perceptions of parental empathic communication with juvenile delinquency tendencies [14]. A different study, which was conducted by Rahmatul Ulfa Auliya, stated that there is a law of causality that comes from the family (parents), because the delinquency of an adolescent is always crystallized towards external environmental factors [15].

Several previous studies have led to efforts to explore the factors that cause juvenile delinquency. Most of the research results achieved indicate the factors causing juvenile delinquency that tend to be different. As far as the researcher's search, existing research has focused more on examining the factors that cause it. However, research that points to how the legal consequences or special treatment should be given to juveniles who commit delinquency need to be done. This research will try to explore what are the factors that cause juvenile delinquency, the forms of juvenile delinquency, and also how the right efforts to deal with juvenile delinquency, especially in Magelang Regency. This research was conducted empirically by taking data from the Magelang Police, while the approach used was the case approach.

2 Method

This type of research is empirical, namely field research using direct data from the Magelang District Police. The research approach used is a case approach. The data source that the author uses is secondary data in the form of literature studies related to juvenile delinquency data at the Magelang Police. The data analysis used is descriptive qualitative method. This data analysis describes situations, conditions, and incidents about juvenile delinquency cases that are included in the criminal section by processing the data obtained at the Magelang Police and conducting interviews to strengthen the secondary data obtained.

3 Results and Discussion

3.1 Causes of juvenile delinquency in Magelang Regency

Based on the results of an interview with Aiptu Isti Wulandari, SH., MM. (Head of Criminal Investigation Unit of the Magelang Police), obtained information that the factors causing juvenile delinquency in Magelang Regency include:

3.1.1 Social media
Social media is an online media, where all users can share, participate, and create accounts in the form of blogs, forums and social networks. This media uses internet-based applications supported by information technology to create virtual spaces. Along with the development of information and communication technology as well as the development of lifestyle and interaction, especially among students, it indirectly experiences acculturation. One example is the networking platform sites Facebook, Twitter, Instagram, Youtube, and others that are very easy to use to get to know new people [17]. Ideally this technology has a positive influence, but often has a negative effect on adolescents.

There are good and bad sides to using social media. First, social media in education are used by educators to share knowledge, such as using Youtube. Second, social media will be bad if used for negative things and even cause problems that harm others. Teenagers generally recognize the potential safety hazards that occur because of the desire to express themselves as part of their existence. They get this awareness from information and cases that occur on social media. Teens knowingly and unintentionally receive information about violence, pornography, and hate speech. This is not surprising if the dangers arising from social media are very high among teenagers, so there is a need for filters so that social media does not significantly change user behavior, even committing criminal acts.

Social media is a major factor in adolescents committing deviant acts, one of which is the case of brawls triggered by provocateurs, mutual insults, and cyberbullying on social media. The existence of provocateurs has a big influence in carrying out brawls between adolescents, the teenagers plan brawls on social media by uploading provocative statements or pictures so that many parties are affected. Meanwhile, on the other hand, social networking sites can influence smoking behavior or consuming alcoholic beverages. Another impact of the development of social media technology for adolescents is the easier it is to access what not to do. This makes children less concerned with the interests of others, thus making children become individuals.

3.1.2 Social environment

Seniority pressure is also considered to be one of the drivers of violence against adolescents. This is based on the motive for power over others and the motive for being part of a “strong” group so as to gain status as a group member. For example, if one student does not want to participate in a brawl, while another student taunts or insults him for being weak, then that student feels slighted and then follows the wishes of other friends to join in the fight. The case of brawl between schools that occurred in Magelang District is considered a tradition passed down from generation to class [18].

Other cases that have been handled by the PPA unit within 3 years, there were seven cases, namely sexual immorality and sexual relations with children. This action is caused by promiscuity. Free association in the present era is no longer taboo for teenagers. Teenagers are free to associate with various kinds of people; teenagers often commit deviations without caring about the surrounding community.

3.1.3 Family environment

The pattern of children's deviant behavior can be caused by family education that cannot provide affection. A violent parent's attitude provides life experiences for children and can do the same at times. Another supporting factor that is mostly found is the socio-economic
condition of the family. This condition affects the behavior patterns of parents towards children. As a result, parents treat their children less well.

Low family socio-economic factors can result in adolescents becoming insecure, frustrated, and hurt. This is because they are unable to compete with other teenagers. Thus children carry out certain social functions to raise their self-esteem by committing crimes.

3.2 Forms of juvenile delinquency in Magelang Regency

Based on statistical data from the Criminal Investigation Unit of the Magelang Police, crimes committed by teenagers for three years (2017-2019) are as follows:

<table>
<thead>
<tr>
<th>No</th>
<th>Forms of Juvenile Delinquency</th>
<th>Year</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Copulation with children</td>
<td></td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>Violence against children</td>
<td></td>
<td>2</td>
<td>5</td>
<td>6</td>
<td>13</td>
</tr>
<tr>
<td>3</td>
<td>Ignorance</td>
<td></td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>Theft</td>
<td></td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>5</td>
<td>Deprivation</td>
<td></td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>Fraud or embezzlement of funds</td>
<td></td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>Noisy</td>
<td></td>
<td>20</td>
<td>14</td>
<td>17</td>
<td>51</td>
</tr>
<tr>
<td>8</td>
<td>Destruction</td>
<td></td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>Negligence leads to death</td>
<td></td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>Child abuse</td>
<td></td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>11</td>
<td>Beating</td>
<td></td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>12</td>
<td>Fornication</td>
<td></td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>13</td>
<td>Animals</td>
<td></td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Amount</strong></td>
<td></td>
<td>31</td>
<td>27</td>
<td>32</td>
<td>90</td>
</tr>
</tbody>
</table>

Data source: Processed from the PPA Criminal Investigation Unit, Magelang Police

From the table above, it can be concluded that there was a decrease in juvenile delinquency cases in 2017 by 31 cases to 16 cases in 2018. However, in 2019 there was an increase to 32 cases. Of all the juvenile delinquency cases that were most vulnerable from 2017-2019, there were 51 cases of brawl. In 2017 there were 7 cases, including 2 cases of sexual relations with children, 2 cases of violence against children, 1 case of neglect, 4 cases of theft, 1 case of seizure, 1 case of fraud or embezzlement, and 20 cases of brawl. The case of brawl in 2017 was the most cases recorded in the Criminal Procedure Code of PPA Magelang. Total juvenile delinquency in 2017 was 31 cases.

In 2018 there were 6 cases, namely intercourse with children increased to 3 cases, violence against children increased, all 2 cases in 2017 to 5 cases in 2018, theft of 3 cases, brawl where 20 cases decreased to 14 cases, the most cases recently namely negligence which resulted in 1 case of death and 1 case of damage. Total juvenile delinquency in 2018 was 27 cases.

Finally, in 2019 there was an increase in cases, namely to 8 cases with 4 new cases. First, 1 case of sexual relations with children, violence against children which in 2018 increased by 5 cases to 6 cases, theft of 2 cases, tawurang increased to 17 cases, and 4 new cases, namely 1 case of animal sales, 1 case of sexual abuse, torture of child in 2 cases, beating in 2 cases. Total juvenile delinquency in 2019 increased to 32 cases.

Based on the data above, the researcher concluded that the condition of adolescents in Magelang Regency was very apprehensive and fell into the unnatural category. This is because
there were many irregularities that resulted in being included in the rubik sentence. This behavior is not an ordinary phenomenon and is a reflection of the increasing quality of juvenile delinquency. Thus, it is necessary to handle it starting from efforts to eradicate and enforce the law against underage criminals. The case above is evidence that the bad effects of juvenile delinquency are not only self-defeating for the perpetrators but can also harm all parties. As the results of research conducted by Lilis Karlina which states that the current state of juvenile delinquency is considered unnatural [2].

3.3 Delinquency Prevention Efforts in Magelang Regency

The Magelang Regional Police have made two efforts to tackle juvenile delinquency, namely preventive measures (prevention) and repressive measures (prosecution). The two efforts are described as follows:

3.3.1 Preventive measures

a. The Magelang Regional Police provides guidance and counseling at Junior High Schools, Vocational High Schools, and Senior High Schools. Especially for cases of brawl, alcohol, and other acts of irregularities, the police directly dealt with teenagers to provide information about the negative impacts caused by these irregularities. The Polres Magelang hopes that teenagers realize that this action must be avoided. This is because it can cause negative things and can damage the future.
b. The Magelang Regional Police places police personnel at points prone to fighting and conducts routine raids and guards at schools blacklisted by the Magelang Police. Apart from that, they also conduct patrols as an effort to prevent fights. Patrols are carried out at school time and at night. The Polres Magelang collaborates with elements of society and stakeholders.
c. The police and the school hold a pesantren kilat or routine counseling every Friday about juvenile delinquency. This activity aims to provide teenagers with religious material and is related to how to ward off juvenile delinquency.

Broadly speaking, based on previous research conducted by Yusuf Widayanto, the effort made by the Magelang Police was the same as that of the Surakarta City Resort Police. This can be seen from the efforts used, namely, guarding in certain places, patrolling, counseling, delivering security messages, arranging on the road, and training on safety riding [16].

3.3.2 Repressive measures

a. The Magelang Police arrested teenagers who were involved in brawls, illegal races, and drank alcohol and were subject to push-up sanctions, took part in the morning action and were then given counseling, appeals, and made a statement signed by parents, RT, RW and school principals so as not to repeat the action.
b. The Magelang Police have taken different actions against juvenile delinquency, such as brawls that resulted in death, torture, and serious cases. The police will hand over to the family or proceed legally or in a peaceful manner. The juvenile offender with a diversion or restorative justice approach if the criminal threat is under seven years. This is based on Law Number 11 of 2012 concerning the Child Criminal Justice System (UU SPPA) and Government Regulation Number 65 of 2015 concerning Guidelines for the Implementation of Diversion and Handling of Children Not Aged 12 Years Old.
c. Diversion is carried out as a diversion in the handling of cases of children suspected of committing a criminal act from the formal process with or without conditions.

d. The efforts made by the Magelang Police in preventing and committing juvenile delinquency can be said to be a very well-structured effort. This is different from what was conveyed by previous research conducted by Rahmat Budi and Fitriani which stated that the system built in the handling of crimes committed by children and adolescents is currently unstructured [11]. In fact, the system that was built at the Polres Magelang has now been carried out well.

4 Conclusion

Based on the results of this study, it can be concluded that there are three factors that cause juvenile delinquency in the Magelang Police jurisdiction, namely: First, social media factors that influence adolescents to deviate. Second, social environmental factors, namely the existence of seniority based on power over others by committing violence against juniors, and daily interactions with peers. Third, family factors due to lack of parental love, parenting patterns, and low socioeconomic family conditions.

There are 12 forms of juvenile delinquency in the jurisdiction of Polda Magelang, namely: intercourse with children, commotion, violence against children, theft, seizure, fraud or embezzlement of funds, destruction, fights, harassment, beatings, adultery, and animals. Each form of juvenile delinquency received different treatment as well. There are two efforts to overcome juvenile delinquency carried out by the Magelang Police, namely preventive and repressive efforts. The Magelang Polres handed over to the families of the victims either legally or in a peaceful process against adolescents who committed serious crimes, such as brawls that resulted in casualties, theft, etc. If it is processed legally, the Magelang Police will process it by way of diversion (7 years in prison) in accordance with the SPPA Law. This research provides a good solution to the actions that should be taken against juvenile delinquents. This is so that adolescents can realize their mistakes and not repeat them.

Acknowledgement

Researchers would like to thank the parties who have helped carry out this research. Researchers hope that the results of this research can be useful for the development of science and can be applied to all interested parties.

References


The Effect of Debt to Asset Ratio and Debt to Equity Ratio Against Return on Assets

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Terbuka University, Indonesia²

Abstract. The purpose of this study is to ascertain the determinants of return on assets caused by the debt-to-asset and debt-to-equity ratios by analyzing the financial statements of food and beverage companies listed on the Southeast Asian Stock Exchange between 2012 and 2018. The independent variables (free) and dependent variables (dependent) are used in this study, with the dependent variable being the Debt to Asset and Debt to Equity Ratios, and the independent variable being the Return on Assets. Purposive sampling was used to identify eight companies that provided complete financial reports in order to obtain 56 samples. Multiple linear regression analysis, a partial test, and a simultaneous test were used in this study. The study's findings suggest that the Debt to Asset Ratio has a significant effect on Return on Assets, while the Debt to Equity Ratio does not. The results of the concurrent study of the Debt to Asset Ratio and the Debt-to-Equity Ratio on Return On Assets indicate that both have a significant effect on Return On Assets at a level of 0.200>0.05, indicating that both the Debt to Asset Ratio and the Debt to Equity Ratio have a significant effect on Return On Assets.

Keywords: Debt to assets ratio, debt to equity ratio, return on assets

1 Introduction

There are numerous types of businesses in the business world, and each type of business has a sizable number of competitors or competitors, particularly those discussed in this journal, namely companies in the food and beverage sector. Because one of a human being's primary needs is to eat and drink. Therefore, the company that operates in the food and beverage sector is one company that has a fairly wide market share and can be said to be the main company in the world. With this, companies engaged in the food and beverage sector must be able to control their finances well, so that the company can run stably. Both those in a stable state must be able to control in order to remain stable, and for companies that are in a state of decline, they must be able to control them so that they continue to increase in profit by reducing expenses and increasing their profits.

In this study, which will be used to calculate company expenses, namely the variable Debt to Asset Ratio which calculates the total debit divided by the company's total assets, the Debt to Equity Ratio which calculates the total debit divided by the total equity or what is called the company's capital and the Return On Assets which can calculate operating profit divided by the total assets owned by each company in accordance with the standards owned by each variable. Companies that have listed themselves on the stock exchange must issue a financial report every
year containing the company's assets, including a profit report and dividend payment in accordance with the Decree of the Chairman of Bapepam Number KEP-51/P/1996 dated 17 January 1996 (BEJ) or which is in accordance with the stock exchange of each country. The issuance of financial reports has the objective of making external parties aware of the company's developments and prospects.

The profitability ratio is a ratio for evaluating the company's profitability. This ratio also measures the efficiency of a company's management. This is shown by the profit from sales and investment income. The point is that this ratio shows the company's efficiency (Switzerland, 2010: 196). The profitability ratios can be used by means of comparisons between the different components of the financial statements, particularly the financial balance sheet and the income statement. A number of operating periods can be measured. The purpose is to see the company's development decrease or increase within a certain time frame, as well as the causes of the company. The company should therefore be careful how to improve profits, but the most important thing is to ensure that its profit is maintained so that every year it increases [19].

There are several studies that have been done before and have produced various differences regarding the Debt-to-Asset and Debt-to-Equity Ratios in Relation to Return on Assets. A similar study was conducted by Pebrianti [12] who examined Debt to Assets Ratio, Debt to Equity Ratio, Long Term Debt to Equity Ratio, international ownership and managerial ownership have an effect on LQ45 company profitability. According to research by Widiyanti and Elfira [9] who examined Financial Leverage on Profitability, it was stated that the effect of Debt to Assets Ratio and Debt to Equity Ratio on return on assets was negative. According to Afrinda's research [11] on the effects of liquidity and solvency on profitability in Indonesia's bonded food and beverage companies (BEI), debt-to-asset ratio and the debt-to-equity ratio have negative but insignificant effects on returns. According to Kamal's research [7], which examined the effect of Receivable Turnover and Debt to Assets Ratio on Return on Assets for agricultural companies listed on the Indonesian Stock Exchange (BEI), Debt to Assets Ratio had no significant effect on Profitability Return On Assets.

The authors are concerned, on the basis of the above description, with the effect of the ratios of financial solvency on the profitability growth of sub-sector food and beverage companies listed on the South East Asian Börse for seven periods from 2012 to 2018. The title of this research is therefore "The Effect of Debt to Asset Ratio and Debt to Equity Ratio Against Return On Assets"

2 Method

According to Dukeshire and Thurlow in Sugiyono [15] states that research is a systematic way to collect data and present the results. The research method is defined as a scientific way of obtaining data for particular purposes and applications. There are four keywords that need to be considered, namely, scientific methods, data, purposes, and certain uses.

Quantitative data are the type of data used. According to Sugiyono [15], the quantitative method is called the traditional method, since this method has traditionally been used as a method of research for a long time. In the meantime, a secondary data source is the data source used by researchers. According to Sugiyono [15], secondary sources of information are sources that do not provide data directly to data collectors, such as other individuals or documents.

The research type used in this research is a quantitative method and the data source used is secondary data, which are designed to investigate the causality of research, namely a research
design which examines the possibility of causal relationships between variables. In this sample collection, 8 companies in the food and beverage sub-sector in Southeast Asia were able to obtain samples that matched the criteria for the 7 periods 2012-2018 which presented complete financial reports so that 36 samples were generated.

Table 1. List of Food and Beverage Subsector Companies in Southeast Asia which were the Research Samples for the 2012 - 2018 Period

<table>
<thead>
<tr>
<th>State</th>
<th>Code</th>
<th>Corporate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesia (BEI)</td>
<td>ICBP</td>
<td>PT. Indofood CBP Saberta Kurnia Tbk</td>
</tr>
<tr>
<td></td>
<td>DLTA</td>
<td>PT. Delta Djakarta Tbk</td>
</tr>
<tr>
<td></td>
<td>CBEA</td>
<td>PT. Wimar Cakaya Indonesia Tbk</td>
</tr>
<tr>
<td>Buna Malaysia</td>
<td>AJINOMOTO</td>
<td>Ajinomoto Berhad Malaysia</td>
</tr>
<tr>
<td></td>
<td>APOLLO</td>
<td>Apollo Foods Holdings Berhad Malaysia</td>
</tr>
<tr>
<td></td>
<td>NESTLE</td>
<td>Nestle (Malaysia) Berhad Malaysia</td>
</tr>
<tr>
<td>Singapore Exchange (SGX)</td>
<td>DELFI</td>
<td>Petra Foods Limited Singapore (Delfi)</td>
</tr>
<tr>
<td></td>
<td>INDOAGRI</td>
<td>Indofood Agri Resources Ltd</td>
</tr>
</tbody>
</table>

The dependent variable or dependent variable, the researcher uses a return-to-asset ratio, and a debt-to-asset ratio and a debt-to-equity ratio for the independent variable or independent variable. Multiple linear regression analysis, partial test and simultaneous tests are the analytical technique used.

3 Results and Discussion

3.1 Descriptive statistics

Table 2. Descriptive Statistics Test Results

<table>
<thead>
<tr>
<th>Statistic</th>
<th>N</th>
<th>Range</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Sum</th>
<th>Mean</th>
<th>Std Deviation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAR</td>
<td>56</td>
<td>59.00</td>
<td>.30</td>
<td>65.45</td>
<td>3,160</td>
<td>8,186</td>
<td>1,439344</td>
<td>207,158</td>
</tr>
<tr>
<td>DBR</td>
<td>56</td>
<td>85.00</td>
<td>.32</td>
<td>85.16</td>
<td>15,860</td>
<td>79,223</td>
<td>4,24972</td>
<td>18,043</td>
</tr>
<tr>
<td>DCA</td>
<td>56</td>
<td>7.74</td>
<td>.10</td>
<td>9.74</td>
<td>597.1</td>
<td>1,005</td>
<td>329,599</td>
<td>1,51590</td>
</tr>
<tr>
<td>Valid (N)</td>
<td>56</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Based on table 2, an explanation of the results of descriptive statistical testing is described as follows:

3.1.1 Debt to asset ratio (DAR)

In this descriptive statistical data processing, it is aimed at the results with the number of valid data as many as 56, Delta Djakarta Tbk. Indonesia in 2017 and a maximum of 60.00 owned by PT. Petra Foods Limited Singapore (Delfi) was in the year 2012 with an average or average value of 8,1866, a standard deviance value of 14,39297, and an adjusted value of 207,158.
3.1.2 Debt to equity ratio (DER)

In 2017 the debt to equity ratio variable is a minimum of 0.12 that is owned by PT. Delta Djakarta Tbk. Indonesia and a maximum of 86.10 that belongs to PT. Indofood CBP Sukses Makmur Tbk, Indonesia in 2013, a median or average of 28,3230, standard deviation of 32,06389 and a variance of 1028,093, Indofood CBP.

3.1.3 Return on assets (ROA)

And the asset ratio data has a minimum of 0,10 in 2018 owned by Apollo Food Holdings Berhad Malaysia and a maximum of 7,74 owned by PT. In 2014, the average or averaged value of Petra Foods Limited Singapshop (Delfi) is 1,0663.

3.2 Classic assumption test

3.2.1 Normality test

Table 3. Normality Test Results - Kolmogorov-Smirnov Test

<table>
<thead>
<tr>
<th>N</th>
<th>Normal Parameters**</th>
<th>Unstandardized Residual</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>0.000000</td>
</tr>
<tr>
<td></td>
<td>99% Deviation</td>
<td>0.0945527</td>
</tr>
<tr>
<td></td>
<td>Most Extreme</td>
<td>Absolute</td>
</tr>
<tr>
<td></td>
<td>Differences</td>
<td>0.051</td>
</tr>
<tr>
<td></td>
<td>Positive</td>
<td>0.051</td>
</tr>
<tr>
<td></td>
<td>Negative</td>
<td>-0.061</td>
</tr>
<tr>
<td></td>
<td>Asymp. Sig. (2-tailed)</td>
<td>0.200**</td>
</tr>
</tbody>
</table>

Based on Table 3, the results of the following normality test show that with a sample size of 56 the normality test results show that the value of the Kolmogorov-Smirnov is satisfied, or that the remaining data has been distributed, referring to the result of the Kolmogorov trial with asymp sig 2 tailed above 0.05 (0.200 > 0.05). The following is a Figure 1 depicting the results of the normality test.

Fig. 1. Data Normality Test Results
The results of the normality test show that the points spread around the diagonal line and follow the diagonal line direction, so that the regression model meets normality requirements. In this study the normality test uses the Kolmogorov Smirnov Test. This test is used for statistical tests whether the data is normally or is not distributed. Kolmogorov-Smirnov Test the rules, i.e. if the resulting value $> 0.05$ is the normal distribution data. Conversely, if the resulting value is $< 0.05$, the data is normally not distributed.

Based on the results of the above-mentioned graph test, it shows that the normality test is performed as shown in the diagonal diagram.

### 3.2.2 Autocorrelation test

Table 4. Autocorrelation Test Results

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.706*</td>
<td>.496</td>
<td>.479</td>
<td>.62521</td>
<td>2.012</td>
</tr>
</tbody>
</table>

*a. Predictors: (Constant), lag_DER, lag_OA*

*b. Dependent Variable: lag_ROA*

On the basis of Table 4, the SPSS autocorrelation test results show a Durbin-Watson (DW) 2.012 value, indicating that DW is between DU (1.64295) to 4-DU (2.35705). There is therefore no positive or negative autocorrelation in the area of the critical value observation sample from Durbin-Watson.
3.2.3 Heteroscedasticity test

Figure 2, showing the results of the heteroscedasticity test, the residual data in both regression models show that the results have spread below and above the number 0 and do not form a pattern. There are therefore no symptoms of heteroscedasticity in the regression model proposed in this study.

3.2.4 Multicollinearity test

Table 5. Multicollinearity Test Results

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Variable</td>
<td></td>
<td></td>
<td></td>
<td>VIF</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>-0.01</td>
<td></td>
<td>0.01</td>
<td>0.165</td>
</tr>
<tr>
<td></td>
<td>Ln_0DR</td>
<td>0.01</td>
<td></td>
<td>0.01</td>
<td>0.99</td>
</tr>
<tr>
<td></td>
<td>Ln_DER</td>
<td>0.01</td>
<td></td>
<td>0.01</td>
<td>1.01</td>
</tr>
</tbody>
</table>

On the basis of Table 5, all independent variables, namely the debt ratio, and the debt-to-equity ratio, can be seen to be met during the multi-linearity test because each variable has a tolerance value of less than 0.10 and a VIF of less than <10. This means that the data are not multi-linear, so that they are useful in the regression model.

3.3 Model accuracy test

3.3.1 Simultaneous significance test (Test F)

Table 6. F Test Results

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>38.331</td>
<td>2</td>
<td>19.165</td>
<td>45.809</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>22.174</td>
<td>55</td>
<td>0.418</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>60.505</td>
<td>57</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Ln_ROA
b. Predictors: (Constant), Ln_0DR, Ln_DER
The results of the F test show that the F value calculated exceeds the F Table value, 45.809 > 3.17 and its meaning is less than 0.05 (0.000 < 0.05). This means that all X variables affect the Y variable simultaneously.

3.4 The coefficient of determination (R$^2$)

Table 7. Results coefficient of determination (R$^2$)

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.796*</td>
<td>0.634</td>
<td>0.620</td>
<td>0.0492</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Ln_DER, Ln_DAR  
b. Dependent Variable: Ln_ROA

From the above table, the Adjusted R$^2$ value reflects the ability of the independent variables to explain the variance in the adjusted variable. Based on processing using SPSS 23 Windows software, it is found that the adjusted R$^2$ value is the value of R$^2$ which indicates that the Y variable is influenced by all X variables by 63.4%, the remaining 36.6% is influenced by other variables outside of this study.

3.5 Multiple linear regression analysis

Table 8. Results of Multiple Linear Regression Analysis

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>-7.65</td>
<td>.111</td>
<td>-6.354</td>
</tr>
<tr>
<td></td>
<td>Ln_DER</td>
<td>.259</td>
<td>0.054</td>
<td>5.29</td>
</tr>
<tr>
<td></td>
<td>Ln_DER</td>
<td>.140</td>
<td>.046</td>
<td>3.43</td>
</tr>
</tbody>
</table>

*a. Dependent Variable: Ln_ROA

Multiple regression uses data in the unstandardized coefficient column B. Judging from the results of the multiple linear analysis test above, it can be explained that the multiple linear regression analysis model is as follows:

$$\text{ROA} = -0.701 + 0.259 \text{ Ln DAR} + 0.140 + 0.140 \text{ LnDER}$$

(1)

The linear regression equation above shows that, (1) a constant producing the number -0.705, i.e. if the debt to equity and the indebtedness to equity ratio equals (0), the return on equity ratio is -0.705. The results of this linear regression test show that a decrease in the value of Return on Assets results in a value not complying with the standard. (2) $\beta_1$ or Debt to Asset Ratio producing 0.259 that shows that Return on Asset has a positive effect and will rise by 0.259. The results of the above-mentioned linear regression analysis can also be interpreted to suggest that the value of the Debt to Asset Ratio increases and goes beyond the standard compared to the decreasing results of the Return on Asset test. This contributes to the positive effect of the variable X1 on variable Y, which can be caused by default (default), given that the company finances too much debt assets. (3) $\beta_2$ or Equity Debt Ratio produces a value that continues to rise over several periods outside standard, leading to the 0.140 number showing a
positive effect on Return on Assets that is decreased over several periods. This is not up to the
standards.

3.6. Partial test (t test)

Table 9. T-Test Results

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>-2.706</td>
<td>.111</td>
<td>-5.354</td>
<td>.000</td>
</tr>
<tr>
<td>Ln_DAR</td>
<td>2.59</td>
<td>.064</td>
<td>.529</td>
<td>4.827</td>
</tr>
<tr>
<td>LnGRES</td>
<td>1.40</td>
<td>.045</td>
<td>.343</td>
<td>3.120</td>
</tr>
</tbody>
</table>

The above linear regression equation shows (1) that if the number -0.705, i.e. the equity
debt and the equity indebtedness ratio equals (0), the equity rate is -0.705. The results of this
linear regression test show that a fall in the Return on Assets value results in a value that does
not conform to the standard. (2) β1 or debt to asset ratios of 0.259 which show a positive effect
of return on assets and increase to 0.259. The results of the linear regression analysis referred to
above can also be interpreted to suggest that the debt to asset ratio is increased and exceeds the
standard compared to the declining results of the asset return test. This helps to make the variable
X1 positive for variable Y, which can be caused by default (default), as the company finances
too much debt assets. (3) β2 or the equity debt ratio produces a value which continues to rise
over a number of periods, which results in a number 0.140 which exhibits a positive effect of
multi-phase Return on Assets. This is not in line with the standards.

3.7 Discussion of data analysis results (hypothesis proof)

3.7.1 Effect of debt to asset ratio (DAR) on return on assets (ROA)

The first assumption is whether the debt-to-asset ratio (DAR) impacts on returns on assets
(ROA). The table of Table 4.12 is 4,827 and the table of Table 2.00575. The significance value
is 0.000, so that there is a positive and significant impact on the return on assets variable Debt
to Asset Ratio (DAR) (ROA). According to its results, the higher the value of a debt-to-asset
ratio, the greater the financial risk, the greater this ratio indicates that the higher the cost to fulfill
its obligations that must be borne by the company, according to Horne & Wachowisz’s [6]. This
can be caused by default, because the company has committed too much debt assets. With a risk
of default, the higher the cost of a company, the lower the debt to asset ratio, the higher the
ability of the company to overcome the corporate debt.

The results of this study are consistent with the current ratio, debt to asset relationship, total
capital turnover and inflation on returns on assets [18]. The result of this study is also in
accordance with [1], who examined whether the debt-to-asset ratio and debt-to-equity ratio have
an important impact in the return on assets.

The results of this research are inversely proportional to those investigated by Widiyanti
and Elfina [9], which states that the greater the debt-to-asset ratio, the greater the financial risk,
according to Horne & Wachowisz [6]. The risks in question are increased because the company
finances too many debt assets. The larger this ratio indicates, based on Pecking Order Theory, that the higher the costs the company will have to bear in fulfilling its obligations. This can reduce the company's profitability (ROA). The higher this ratio the higher the amount of lending capital used to invest in assets to generate company profits. A high ratio is an increase in the creditor risk in the form of the failure of the company to pay all its obligations. The shareholders' side will have a high ratio that will eventually reduce dividend payments. Then there is a negative influence between DAR and ROA.

According to Pebrianti [12], the results of regression tests to test the ROA effect of the independent DAR and DER variables have been found to have an irrelevant effect on the ROA variable of the LQ 45 index companies listed on the Indonesian Börse. The DAR variable is -0.233) and the DER variable is -1.362 based on the data processing results, which means the regression is not significant. Afrinda [11] states that the debt-to-total asset ratio on ROA has a negative and significant impact. The negative effect of the debt, the debt ratio to the return of assets, is insignificant; according to Kamal [7] the reduced debt to asset ratio can be due to decreased total debt and ineffective processing of activa. Profit was not maximized to decrease net income, too.

The debt-to-asset ratio is the ratio of total debt to total assets, according to Samsul [10]. Total debt covers short-term and long-term debt. Current assets plus fixed assets and other assets are included in the total assets. Debt to asset ratio indicates at a time the amount of debt to total assets. The position of this ratio can change for better or for worse every month or every year.

### 3.7.2 Effect of debt to equity ratio (DER) on return on assets (ROA)

The second hypothesis is whether the debt-to-equity ratio influences the return on assets derived from Table 4.12 with a tcount of 2,120 and a table value of 2,00958. The value is 0.039. This means that the Debt to Equity Ratio (DER) variable on return on assets has a negative and significant impact (ROA). With this study, the debt to equity ratio has a connection with the return on assets, which can lead to a decrease of return on assets if the debt to equity ratio increases. This is because total capital increases are higher than total assets and the value of Return On Assets may be reduced.

The results of this study are consistent with the current ratio, debt to asset relationship, total capital turnover and inflation on returns on assets [18]. The results of this study are also consistent with [1] who examined the effect on return on assets of debt to equity and of debt to equity ratios. which states that the debt to equity ratio affects Return on Assets in a significant way. According to Soesetio [14], it affects the dividend payout ratio simultaneously.

Widiyanti and Elfina [9] studied the results of research that are inversely proportional, stating. Taking the newspaper, the DER level will affect the company's level of ROA achievement. If debt costs are lower than equity, the source of the funds from the fund source or debt will be more efficient in profit generation (increasing return on assets) and vice versa [2]. On the basis of the theory of pecking orders, companies with increasing profit are offered profitable opportunities to finance their investments internally so that companies do not attract foreign funds and try to find the right solution to debt problems. Debt affects the performance of companies badly, as the higher the debt level, the higher the interest cost and thus the lower profit. The higher the DER, the greater the burden on foreigners, the more likely it will be to decrease the performance of the company. The effect from DER to ROA is negative. According to Pebrianti [12] the results of regression tests to test the ROA effect of the independent DAR and DER variables have been found to have an irrelevant effect on the ROA variable of the LQ 45 index companies listed on the Indonesian Börse. The DAR variable is -0.233) and the DER
variable is -1.362 based on the data processing results, which means the regression is not significant. Afrinda [11] says that DER has a significant and negative impact on the ROA. According to Rini et al. [13], the debt ratio in the consumables sector by companies has no significant impact on the value of the firm as reflected in the book price to value, which is why the third hypothesis is rejected. Jamil (2015) said they have no significant effect in this research, according to Muhammadinah and Mahmud. The Debt to Equity Ratio (DER) is a ratio of total debt to equity, according to Samsul [10]. The position ratio can change for better or worse every month or every year.

3.7.3 Effect of debt to asset ratio (DAR) and debt to equity ratio (DER) on return on assets (ROA)

Based on research findings at the same time (Test F), it is known that the DAR and DER (Debt to Equity Ratio) together influence the returns on assets (ROA). This can be seen from the importance value of the 0.000 or <0.05 ANOVA table. The results of this study show that the higher the value of the debt to the equity ratio, and the lower the return on assets that is not compliant with the standard.

The results are in line with Supardi & Suratno [18] and Akbar [1] indicating an important impact on the Return on Assets in debt to assets and debt to equity ratio.

Research results are inversely proportional to Widiyanti and Elfina's [9], which shows that Debt to Asset Ratio (DAR), Debt to Equity Ratio (DER) and Long Term Debt to Simultaneously show no significant impact on Automotive and Component Sub-sector Component (ROA) Equity Ratio (LDER). According to Pebrianti [12], the results of regression tests to test the ROA effect of the independent DAR and DER variables have been found to have an irrelevant effect on the ROA variable of the LQ 45 index companies listed on the Indonesian Börse. The DAR variable is -0.233) and the DER variable is -1.362 based on the data processing results, which means the regression is not significant. According to Afrinda [11] there is a negative impact on return on assets by the variables Debt in Asset Ratio and Debt in Equity Ratio. The negative effect is not significant according to Kamal [7] not maximum to decrease net profit also.

4 Conclusion

Based on test results from the above data on the effect of the debt-to-account ratio (DAR) and debt-to-equity ratio (DER) on asset returns (ROA) in food and drink manufacturing sub-sectors listed for the 2012-2018 Southeast Asian stock exchange, the researchers draw the following conclusions. The t-assessment of the debt to asset ratio (DAR) (X1) variable has a significant 0.000 <0.05 level, which means that it partially states that the Debt to Asset Ratio (DAR) variable has a negative but significant influence on the return on assets (ROA). The t-test of the variable ratio of debt to equity (DER) (X2), which is significantly 0.003<0.05, which is that the Debt-to- Equity Ratio (DER) variable has a negative and significant effect on return on assets (ROA). The Debt to Asset Rate and Debt to Equity Ratio variable f-test test has a simultaneous effect on asset return, with a significant 0,000 < 0.05 level.
References


Indonesian Penal Policy of Information Disorder: The Paradigm Shift

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Abstract. Long before information disorder via online become a global problem, Indonesia has criminalized the distribution of information disorder. The prohibition is regulated in article 14 and 15 Law No. 1 the Year 1946 which part of the Indonesia penal law. Punishment for this criminal provision is temporary imprisonment. However, the social context when Law No. 1 the Year 1946 issued is different from the current situation. Therefore, the purpose of this research is to analyses Indonesia's penal policy-related information disorder and whether that penal policy suitable for the current situation and condition where the information disorder becomes faster and massive. Using document research and a comparative approach with Singapore who prohibited this conduct under the Protection from Online Falsehoods and Manipulation Act year 2019, it shows that Indonesia's penal policy requires a paradigm shift to solve the distribution information disorder via online problems without violating the freedom of expression as a fundamental right. In the end, this research has good implications for planning penal policy in the future.

Keywords: Penal policy, freedom of expression, information disorder

1 Introduction

Distribution of information disorder via the internet becomes Indonesia's criminal problems. Data from the Ministry of Information and Communication of the Republic of Indonesia ("MoIC") confirm 1,028 disinformation contents regarding Covid-19 that distributed from January until August 2020. Then 110 contents were already reported to Indonesia National Police by the MoIC for further criminal investigation in Indonesia, it is a crime to create and distribute information disorder which causes a public nuisance. The prohibition is regulated in article 14 and 15 Law No. 1 the Year 1946 which part of Indonesia penal law. Punishment this criminal provision is temporary imprisonment. However, it raises the question of whether the provision of article 14 and 15 Law No. 1 the Year 1946 is suitable with the current situation and condition?

Previous research analyzed the legal perspective of the internet information disorder but does not specific analyse criminal law matter [1]. Other previous research Analysed regarding the handling of information disorder according to Law Number 1 Year 1946 [2]. Both previous researches does not use a comparative method. It is different from this research which focuses on punishment's purpose of this distribution of information disorder prohibition. This research compares Indonesia criminal law with Singapore which in 2019 issued the Protection from Online Falsehoods and Manipulation Act year 2019.
The purpose of this article is to analyze Indonesia's penal policy-related information disorder. Does provision on article 14 and 15 Law Number 1 Year 1946 suitable with current condition which technology and communication create convenience to citizen to express and distribute their opinion. Punishment of this prohibition shall consider the balancing between crime control effort and protection of freedom of expression. As mention in Article 19 paragraph 3 International Covenant on Civil and Political Rights which protects the freedom of expression and at the same time, such article also limits the freedom of expression with to respect the rights or reputations of others, to the protection of national security or of public order (order public), or public health or morals.

2 Method

The research is a documentary research. The data source comes from previous studies and researches from other researchers [3]. The method that used in this research documents study using legal material, collecting from legislation, books, and journal articles. To complete the data from the internet also uses as an additional source.

The research conducts through three steps. Legal materials that already collected from libraries and the internet, divided into a group according to research questions. Then data analysis micro comparative approaches to answer the research problems. The micro comparative approach also uses to compare several topics or aspects from two or more legal systems [4]. In this research, Singapore is chosen because under the new law Protection from Online Falsehoods and Manipulation Act which was issued in last 2019, Singapore has a new perfective to deal with information disorder distribution. The final step then summarizes the legal answers.

3 Results and Discussion

Before presenting the result, first authors shall describe the concepts that uses in this research. In this article, the concept of penal policy refers to a crime control effort using criminal law and punishment parts of this. Penal policy parts of social policy therefore in crime control penal and non-penal efforts shall be integrated [5]. Then, the concept of Information disorder is uses to distinguish inaccurate news which produces and distribute by press institutions. Information disorder consists of three types, disinformation, misinformation, and malformation [6].

3.1 Presenting the results

Indonesia and Singapore come from two different legal traditions. Indonesia is part of the civil law system and Singapore is part of the common law system. In general, both legal systems have different characters. One of the basic characteristics of the civil law system is that the court's main task is to apply and interpret the law contained in a code, or a statute to case facts. Code and statute are premier legal sources. Then when certain cases are not regulated by the code, the courts should apply some of the general principles used to fill the gaps. In the common law system, the law is not created utilizing legislation but is based mainly on case law. The principle is that earlier judicial decisions, usually of the higher courts should be followed in the
subsequent cases. The growing globalisation imposed a need unification of law. In contemporary civil law the role of judges in the creation of law is increasingly important, while the difference between civil law and common law courts shows a tendency of disappearing, or at least looking less significant. On the other hand, large sections of common law have been regulated by statutes and even codes [7]. In this article, the comparation limited only in criminal law regulation that prohibit the fabricate and distribute information disorder.

3.1.1 Indonesia criminal regulation

Indonesia prohibition of distribution information disorder on Article 14 and 15 Law Number 1 the Year 1946 regarding Criminal Regulation. Person who violate those regulations shall be punish between two to ten years of imprisonment. The purpose of both articles is to protecting public order and to create stability during post independent declaration [8]. Since both articles do not mention the internet as media to distribute information disorder, in practice law enforcement officer sometime used Article 45A paragraph (2) Law Number 11 the Year 2008 regarding Information and Electronic Transaction which has been amended by Law Number 19 the Year 2016. However, this article does not suitable because this article specifically prohibit person who fabricate and distribute hate speech via internet.

3.1.2 Singapore criminal regulation

Singapore under the Protection from Online Falsehoods and Manipulation Act, Singapore distinguishes those conducts. Singapore criminalizes a person who intentionally conducts several activates related to information disorder. The law prohibits the person 1) fabricate and distribute information disorder which creates a social riot. 2) use an inauthentic online account to distribute and to accelerate the information disorder communication. 3) make or alter information disorder with intention of communicating that information. 4) receive any financial or another material benefit for providing any services to communicate information disorder.

Besides under the Protection from Online Falsehoods and Manipulation Act, Singapore introduces a correction direction. It is a government order for a person to correct or to clarify his/her statement in the specified form and manner of communication and by the specified time. If the person does not fulfill its obligation to conduct correction direction, then social media intermediaries should suspend the person's account or block accesses for social media users to the account. Social media intermediaries shall conduct that action as ordered by the Government of Singapore. If social media intermediaries do not comply with the government order shall be punished. In case is an individual the punishment is fine for a maximum of twenty thousand Singapore dollars or twelve months imprisonment or both. In the case is a corporation the punishment is a fine of maximal one million Singapore dollars.

3.1.3 The similarity and differences between Indonesia and Singapore

Both countries prohibit person who fabricate and distribute information disorder which disturb public order. Punishment for the perpetrator is imprisonment and/or fine. The perpetrator shall have evil intention when he/she create and distribute the information disorder to public.

Indonesian does not prohibit specific action related the distribution of information disorder via internet. When the person distributes information disorder using a fake account or by hacking other accounts, it considers as part of distribution information disorder activities. Then, it does not matter the motivation of the person to distributing information disorder as long as it
is conducted intentionally. Different with Singapore who create categories related information disorder that still can be tolerated and not. For the first category, correction direction imposes as a treatment to a person who violates the law. Then information disorder that can't be tolerated and intentionally conducted penal punishment shall be imposed.

3.2 Discussion

The debate regarding the penal policy is to find the justification for imposing punishment [9]. Retributive and deterrence are two of that justification. The retributive purpose is to give suffering or sorrow to the perpetrator. It parts of the non-consequentialism view which claims that morality is the justification of punishment and it doesn't matter whether the punishment is right or wrong. Deterrence has a forward purpose which punishment not only considers as an instrument to deliver suffer and sorrow to the perpetrator but also to prevent a person or public from committing a crime. It is a consequentialist view which claims that right or wrong in a moral act will determine the consequences of the action [10]. Furthermore, retributive and deterrence become the aims of the penal policy itself.

Criminal law has characters last resort mean that criminal law is subsidiary and fragmentary. Means criminal law has aimed to complement other laws in crime control and criminal law can only protect the partial person and public interest. Therefore, criminal law is used when other legal and social efforts fail [11]. This principle shall be considered when drafted a penal policy. Retributive and deterrence are part of Indonesia's penal purpose of the prohibition of distribution information disorder. Heavy penalty imposes to create a warning to the public about the suffering and sorrow about the punishment. However, the deterrence itself become debatable due to their lack of success story [12].

A heavy penalty does not reduce the distribution of information disorder. Article 14 and 15 Law No. 1 Year 1946 purpose is to punish the perpetrator. In other hand, other mechanisms also conducted. MoIC conduct media literacy conduct to clarify the information disorder and to take down and blocking the site which distribute the information disorder. However, these mechanisms not in line. Law enforcement officer apply criminal law in the first place without consider that in trivial or mirror information disorder which does not create public nuisance, MoIC mechanism might be sufficient solve the problems.

Indonesia requires a paradigm shift in penal policy, especially on the prohibition of distribution information disorder. Punishment itself can't stop the negative effects of information disorder. The distribution of information disorder via the internet and social media create have contributed to the creation of what has been called 'echo chambers' and 'filter bubbles' that are seen to reinforce individuals' existing views and produce increasingly siloed debates [13].

Singapore under Protection from Online Falsehoods and Manipulation Act has a stronger approach. The purpose of this new regulation is not only to create deterrence effects by criminalizing and punishing the perpetrator but is to maintain neutrality communication among Singapore citizen in an online site by intervention in the communication. Neutrality communication means to stop the information disorder debate among the Singapore citizen and to restore the communication as previous condition. Correction direction is part of the intervention of communication. Under the Protection from Online Falsehoods and Manipulation Act, correction direction follows by internet intermediary’s obligation to manage algorithm to distribute the correction or clarification form correction direction in their internet or social media platform. This intervention will minimize the negative effects of distribution information disorder and its parts of preventive action.
Singapore applies the last resort principle. The person who repeats the create and distribute information disorder even though his/her did not conduct the correction direction and his/her social media account has blocked by internet intermediary, then the criminal charge can apply. In the latest development, the Government of Singapore has ordered Facebook to block access to account Star Time Review for Singapore Facebook users. Star Time Review has a post article containing claims about the coronavirus (Covid-19) situation that according to the Government of Singapore as entirely untrue. Before the order to Facebook, Star Time Review already receive notice for the Government of Singapore to correct their news, but they fail [14].

However, this correction direction idea raises a debate about whether this violates the freedom of expression. Two justification of freedom of expression are to discover the truth and to promote democracy [15]. Both processes require pluralism expression from every citizen. The correction direction supports the government as central which every opinion is justified as truth if the government approved. Level of trust in government in Singapore is highs. According to an Edelman survey published in June 2020, trust in the Government is seventy percent [16]. The correction direction might violate the freedom of expression, but it can stop the debate regarding information disorder among the Singapore citizen. The risk to disturb public order can be minimalized.

It becomes a consideration to Indonesia since Indonesia a democratic country. Indonesia's constitution acknowledges the freedom of expression as a fundamental citizen right. Even thought, the level of trust in Indonesia is highs which publish in October 2020 is sixty-six percent [17], but Indonesia has difference politic context with Singapore. Indonesia is democratic country. Government has strong opposition parties which criticize government policy. Therefore, Indonesia citizen does not consider government as central of information. Deference with Singapore, an authoritarian country, criticize government’s policy in Singapore is a tabu.

4 Conclusion

Indonesia requires a paradigm shift in penal policy related to the distribution of information disorder. Article 14 and 15 Law Number 1 the Year 1946 impose an old paradigm that focuses on retributive and deterrence. Punishment imprisonment and fine does not suitable for the current situation in which distribution becomes more massif. Criminal law is the last resort therefore use of criminal law shall be limited. The government needs to stop the communication regarding the information disorder among the citizens likes Singapore under Protection from Online Falsehoods and Manipulation Act. However, the intervention of communication shall not violate freedom of expression.

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References

Strategies for Strengthening Social Capacity during the Pandemic: An Analysis of the LAZIS-Nahdlatul Ulama Philanthropy

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Abstract. The Covid-19 pandemic impacts on many social aspects such as poverty like poverty, health, education, socio-economy and religion. Indonesian government and mass organization (both religious and non-religious) made various attempt to provide protection. The involvement of the Nahdlatul Ulama (NU) in public awareness of health protocols and religious practices is essential, especially in strengthening the network of family resilience affected by Covid-19. This study aimed to explore the strategies to strengthen the capacity of mosque-based rural Muslim communities. The research method implemented a qualitative design. Data collection techniques employed FGD and observation. The subjects of this study were LAZIS-NU daily administrators at the district level and community figures. The results of this study indicated that the strategies to strengthen the capacity of the Muslim community include: first, educational communication through the use of traditions in community ritual groups. Second, community empowerment with a rural partnership pilot project model; third, advocacy for mosque-based Muslim communities.

Keywords: Strategy, social capacity, muslim society, philanthropy-LAZIS-NU

1 Introduction

The flourishing of Islamic philanthropic institutions in Indonesia, such as the Baznas and Lazis which were affiliated with various religious mass organizations shows an escalation in strengthening and development of religious activities whose target capital was the upper middle class and the implementation of empowerment was the weak or inadequate. However, in the Muslim countries, such as Egypt, Yurdania, Qatar, Saudi Arabia, and Kuwait, The philanthropic institutions compete each other and even overlapped in motivation and program ideas with private and voluntary institutions [1]. The situation in the Middle East almost experienced the same as in Indonesia. The New Order era was President Soeharto's reluctance to institutionalize the Zakat Institution, but he prefers other philanthropic institutions, such as Supersemar [2].

Unlike the situation in Indonesia, where the Muslim community was the largest in the world, the two different institutions based on religious philanthropy and CSR seem to play a role and work together in synergy [3]. In the context of Muslim social welfare, the space for actualization and state relations was very open, and in contrast to Malaysia, which emphasizes the Islamic economic movement [4]. This shows an increase in the participation of philanthropy institutions that were growing rapidly in private institutions, BUMN, and
government in the form of LAZIS and BAZNAS. In the context of its utilization, the activity program carried out by Dompet Dhu'afa and PKPU was accelerating community development and strengthening civil society [5].

The two institutions' roles have made fantastic progress, both in terms of income and distribution, in line with research on the concept of Zakat related to ownership and multifunctions, namely religious, social and economic [6]. In contrast to [7], LAZIS-MU's new strategy model, namely empowerment and social welfare, were used as a movement to solve household problems for Muhammadiyah members.

The role of philanthropic institutions in the Covid-19 pandemic storm era has been a threat, challenge, and opportunity for the outbreak of the increasing spread of virus clusters in Indonesian society. The impacts were on the health, social and economic sectors, as well as religion. The economic impact was the sector most affected by the pandemic. Consequently, it also influences the economy of the donors (Muzakki). However, the donors switched to other forms; infaq and sadaqah [7]. In this context, Zakat was employed as one of the foundations of the social and economic system of society [6][8], infaq and sadaqah too. In the context of the community affected by COVID-19, the community is fragmented in the form of vulnerability to poverty, health, unemployment, and family problems. Strengthening capacity is essential in implementing zakat, infaq, and sadaqah institution programs, which include strengthening individuals, organizations, and communities, forming capacity building models and programs, building synergy between actors and institutions. Community development, it includes processes, the achievements of changes in life and society where they identify the problems they experience, the bigger changes in equality, justice and attitudes, collective activities, and the processes are carried out by volunteers [9].

This study aimed to analyze strategies for strengthening the institutional capacity and members of mosque-based groups; and enhancing individual abilities in knowledge, skills, and attitudes.

1.1 Social capacity

The success of community development programs is determined by two principles; establishing democratic decisions based on the needs and emotions of the community, and considering the character and leadership development of the community, which includes: 1) promoting active and representative groups of participants to have equal opportunities, 2) educating community groups on social issues and economic, socio-environmental and political influences framed by alternative actions, 3) institutionalizing different interests to plan the process and assist the desired endeavors to gain influence on progress various community groups, 4) increasing the capacity of community leadership and social organizations, 5) maintaining a willingness to utilize strategic space as an effort to support long-term sustainability and become a good society [10].

In strengthening the community’s capacity, they could be independent when executing programs, both in the involvement of individuals, groups, and organizations, which could be used as social capital because they have resources. The relationship between these forms of social capital includes financial, social, physical, environmental, human, political, and cultural capital [11], as local assets and investments useful in the process of strengthening and empowering the community. However, collective action becomes an orientation that must be considered because sometimes it does not follow the vision and goals of its formulation. Participatory approaches and social capital coalitions are needed to carry out an effective assessment. The implementation of capacity identification covers individuals, organizations,
and institutions [11]. The view that all individuals have the capacity is used as an asset principle that could contribute to the community. According to [12] regarding the assets framework which includes, (1) financial assets, (2) human capital, knowledge, and skills, (3) social capital was social networks owned by the community and organizations, which were invisible assets but it contributes to community empowerment programs.

1.2 Decision making and social participation

In the context of the decision-making process, it provides more opportunities for participants that the ability of stakeholders plays a limited role, which aims to ensure collaborative decision-making processes related to the balance of quality and balance of power. In the context of the balance of quality and power, it is necessary to take sides with vulnerable and weak community groups, so that they have the ability and strength [13], as an effort to be fully involved and participated [14]. It Emphasizes value and change, considered with the emergence of political relations in different groups in the form of interests, dilemmas, and rights that must be explored. Interest is not defined as a need or desire but understood as something to be aware of because it will become dominant and barrier [15] The public sphere of society which consists of different groups politically, socially and civilian is treated equally both in education programs, empowerment and as the advocated groups.

2 Method

This research was to question and explore the facts of the involvement of mosque-based social agents. The data collection method used was qualitative, the acceptability which allowed changes to be made in the interests of the meaning of the relationship between subjects. For the research objectivity, various forms of subjectivity must be avoided so it would not interfere with the research setting, especially when conducting Focus Group Discussions (FGD) with both administrators and communities, interviews, documentary studies, and participatory observation in data collection. The research targets were mosque-based communities in routine groups such as the yasinan, ratiban, lailatul ijtimak in Branch Deputy Majlis-NU (MWC-NU).

3 Results and Discussion

3.1 Potential society: tradition and culture

LAZIS-NU as one of the autonomous institutions, was born by Nahdhatul Ulama in the early 21st century around 2004 at the 31st congress at the Hajj Dormitory, Boyolali, Central Java to help the welfare of the people and raise social dignity through the utilization of Zakat, Infaq, Sadaqah (ZIS) and Corporate Social Responsibility (CSR) funds [16]. Its establishment was a sign of a new movement to pay attention to society, especially the Nahdhiyin community (NU Community) in the welfare sector, especially at the regional and national levels. Although the birth of LAZIS-NU could be considered late compared to other religious mass organizations, its existence and development had been moved to the village level or often referred to as sub-branch activities. This massive formation and expansion could not be separated from the principle, al-Muhafadhah ’ala al-qadim al-shalih wa al-akhdu bi al-jadid al-ashlah that was
maintaining old traditions that are still good (relevant) and taking new things a better strategy as a struggle strategy in facing the flow of change in the public sphere. The Nahdhatul Ulama (NU) religious style relies on the tradition of being used as a movement infrastructure in various fields of da'wah activities [17].

The tradition was interpreted as a tool that was widely used by the community which was useful as a catalyst for inculcating Islamic values and teachings [18]. In addition to being interpreted as a means, and not only interpreted [19] as doctrine but it also includes rituals and symbols used as objects of inheritance for posterity for centuries. If using Bourdieu's analysis in constructing social practices in public spaces and capital, Nahdhatul Ulama played a role through Lazis-NU built from the level of branches, sub-districts, districts, provinces to the Nahdhatul Ulama Board (PBNU). The infrastructure was an institutionalized Philanthropy which was carried out continuously. Along with the government’s massive community empowerment program, it had not been able to reduce the poverty rate [20].

Nahdhatul Ulama (NU) contributed and was involved in encouraging the awareness of its citizens to be actively involved as alternative advocates during worsening education, unemployment, domestic violence and increasing criminal acts. In this context, efforts to make ritual movements became important and needed by the community to carry out massive communication and education, such as activities of yasinan, ratiban, maulid al Baranzi and others, which were traditional media that NU maintains [21]. The movement built and maintained by NU, to borrow a term [22] was a process of mobilization of private capital sources which aimed as a model of domination strategy. Economic power was not in wealth, but in the relations between wealth and the realm of economic relations, and constitutions which could inspire the personal development of special agents with special interests. The form of action implemented by LAZIS-NU was in the form of a guidebook disseminated to donors. In the context of an economic relationship, it could create needs and interests [15], because both would become obstacles that result in hostility and unhealthy competition. It was evidenced by several branch administrators who complained about the distribution of the Branch Representative Council which was not responsive to various interests in grass roots.

Tradition and culture could be used as a source of law in fiqh studies to become a spirit in strengthening social life. The strength and resilience of the existence of the organization and its congregation was the anchor of nationality and the supporting strength of the Unitary State of the Republic of Indonesia (NKRI). Program activities implemented by LAZIS-NU were conducted through educational communication channels by utilizing traditions in community ritual groups. All channels of this ritual activity were scattered throughout the countryside as a power base of LAZIS-NU. Several outreach activities for customer network development or muzaki, conveyed in these forums, which include a monthly income development report. For example, in Cilongok sub-district, the delivery of information related to problems with the Coin-NU activity program was communicated through the congregation of ratiban and mujahadah at every Wednesday evening [23].

Unlike what was practiced in South Purwokerta with 7 (seven) NU branches, socialization activities were carried out through lailatul Ijtim'a' (selapanan or 35 days) as well as massively through the Whatsapp Group as a communication channel which was very helpful for various developments and problems [24]. Based on this data, to borrow Bourdieu's (1998: 16) theory that the processes carried out by NU through LAZIS-NU are a form of political capital that could provide guarantees as a form of private propriety and public services because the distribution was in the form of scholarships, health, training, agriculture and livestock, house renovation, and organizational strengthening. This activity could be called a process of patrimonialization of collective resources carried out by the elite. In this case, it was a form of
elite social democracy in the strength of several generational structures. One of the things that
could be studied was how the political type about social capital transmitted through networks
of family relations, pesantren could not be separated from the dynastic power or kinship of the
pesantren founders.

3.2 The mosque-based institutional and group capacities

The development of Zakat Institutions in Indonesia could be considered both encouraging
and at the same time providing an illustration of increasing people’s faith in Indonesia. Zakat
regulation is based on Law No. 23 relating to Zakat Management as a substitution of Law No.
38/1999, which provides more strength and certainty for the community. State involvement in
zakat management raised suspicion among religious mass organization leaders, such as the
assumption that management under the name’s LAZ belonged to the community, while BAZ
seemed to belong to the government [25]. In its development, the Islamic community
experienced a double burden, the obligation to pay zakat and taxes on the enactment of Law no.
23 of 2011 and Law no. 36 of 2008. However, the most recent development was a reduction in
tax obligations. It was based on the issuance of Governance Regulation Number 60 of 2010
which provides license on the obligations of the Muslim community.

3.2.1 LAZIS-NU Banyumas

LAZIS-NU Banyumas was established in 2014, organized through the management of the
Nahdahtul Ulama Branch Representative Council (MWC-NU) at the sub-district level. The
socialization process was carried out in several ways, including: Lailatul ijtima’, which had a
routine meeting activity at the PC NU, and MWC-NU levels. The LAZIS-NU management
attended the lailatul ijtima’ event was organized by MWC, and NU Subdistricts implemented
about Zakat, Infaq, and Sadaqah guidelines, which was discussed the strategy for its preparation.
The management of LAZIS-NU was continuously improved both in terms of organization,
operations as an institution that manages community funds, especially that has been organized
by the Nahdhiyin community [26].

3.2.2 The implementation of program activities

3.2.2.1 Activities carried out by LAZIS-NU for mosque-based community groups

The program of activities carried out by LAZIS-NU for mosque-based community groups
was to provide stimulants to groups from 12 sub-districts by holding training on making natural
nutrition with materials around the village environment used to process the manufacture of
manure. These activities were centered in the Sukawera village, Cilongok sub-district,
Banyumas.

3.2.2.2 Program in the village of berkoh

The inorganic waste of sorting program in the village of Berkoh, was an activity of a
mosque-based Muslim group formed through the branch of the ZIS management unit. This
activity was carried out with the motto of “sorting trash from the house” which was developed
into annual savings and distributed in cash at Eid Al Fitr. This activity was based on information
from several administrators about the beginning of its establishment by several people
conducting a comparative study in the Wates Jogjakarta area regarding inorganic waste management. By this activity, the UPZ-NU management tried to hold regular discussions to plan the establishment of the Nine Star Waste Bank management and was accompanied by one of the waste management activists. Some of the activities carried out include socialization and education through the Muslima Masjid al Barakah recitation group, which had 12 recitation groups spread across the Neighborhood (RT) level [27]. In addition to learning about sorting techniques related to money-valued waste categories, several administrators also learned the calculation system using this excel training program, which is useful for calculating the savings of members of the Waste Bank.

3.2.2.3 Elderly health post activity program

The Mosque-Based Elderly Health Post activity program, was initiated by the Muslimat recitation group and UPZIS-NU administrators aiming to assist the elderly, especially related to health. This activity was designed every week in collaboration with students who were currently practicing at Margono Soekarjo hospital. To assist Muslim workers who voluntarily learned to use temperature and body tension measuring devices. In addition, the recording of the elderly was carried out in a health check book. These activities were funded by UPZIS-NU and al Barakah mosque infak cash [28].

3.2.2.4 The baitul ikhlas

The Baitul Ikhlas Muslim prayer group was given a program of activities for the skills to make broom sticks, mats and floor brooms. These activities were carried out by bringing in a trainer for 3 days, they felt happy and skillful. These activities did not continue due to motivational factors to change himself [29]. This training activity was an effort to educate the housewives recitation group which activated routinely for congregation tahlian every Friday afternoon. Efforts to strengthen skills aimed at increasing the ability of individuals and groups expected to provide added economic value to the family. Involvement in providing service unit (ZIS) funds was a form of stimulant, serving as education, directed at empowering and advocating for groups considered economically and socially vulnerable. According to [5] Dompet Dhu'afa and PKPU accelerated in developing and strengthening civil society through community activities with a structural approach. But the approach was different from taken by UPZIS-NU, namely by utilizing local traditions as social cohesiveness and instrument of program sustainability activities.

3.2.2.5 The training of household laundry soap

The muslimat of al Hidayah Sukawera recitation group was an Asmaul Khusna recitation group, Gunung Lurah village, Cilongok Subdistrict, holding training on making liquid soap for household kitchens. This activity was in collaboration with an institution engaged in community empowerment, Qaryah Barakah wa Rahmah. This laundry soap making training was expected to be a trigger for housewives who are economically empowered. However, the findings showed a weakness of this activity. This activity group did not a design them to be a driving agent or a pioneer. The activity welcomed enthusiastically by the mothers could not run as expectedly, meaning that the activity had not follow-up and only limited to knowledge. According to the information, efforts to mobility assets in the form of identifying groups that were driving agents have been carried out by the management qaryah barakah wa rahmah as a social institution [21].
Theoretically, mentoring and strengthening asset groups was needed to become a driving catalyst. In this context, this catalyst really determined the sustainability of program. The social coalition efforts have actually been carried out by holding the qaryah barakah wa rahmah. Implementing the LAZIS-NU program used to two communities based on men and women routinely ritual activities was a process of incorporation and reproduction of cultural capital in the structure of social space [30]. The reproduction of the distribution of cultural space structures was achieved through the kinship strategy of the pesantren or alumni, which were the basis of power and something that is institutionally privileged for their social position. Social networks were conducted through group strength in sub-branches or villages and at the sub-district level through the Branch Representative Council (MWC-NU). This social space was utilized by NU as an effort to provide support to the organization, and individual.

3.2.2.6 Mosque management training

The mosque management activity program was carried out as an effort by LAZIS-NU to organize the administration of mosques and mosques as the basis for education, empowerment, and strengthening of the congregation in its surrounding. The mosque was used as a center of activities that orientated to support the congregation. Mosque administrators coordinate every activity after Friday prayers to coordinate and evaluate the implementation of UP-ZIS, Coin-NU Care, and Waste Bank [31]. Several evaluations often aroused that problems occurred in the community, such as: The officers were not serious about withdrawing the NU Care Coin box resulting in the commitment of the customers being overdue and even the missing Coin Care box, and many congregations resigned. These two problems resulted in a lack of public trust to the managers due to lack of discipline, intensity of communication, and negligence of UP-ZIS administrators.

Organizational communication was needed by all groups of society both face interpersonal communications and media. The WAG media was used by NU branches and MWC-NU at the District level. But this media also was ineffective in strengthening the organizational communication network. Social networks were the strength of social capital because social agents or organizational figures played a role in their involvement, as argued by [32], [33] that social assets were invisible but could contribute to community empowerment programs.

3.2.2.7 Training the care of Muslim women corpses

It was expected that the training program for the care of Muslim corpses to the mothers of the 12 recitation group members would be able to independently care for women's bodies (Interview, Shoburi, Darwati and Aisah, 19 July 2019) This activity could have an impact on awareness and increase the involvement of mothers. Based on field observations there were changes and involvement of mothers in the activity of covering bodies, especially women's bodies. Changes in individual perceptions and behavior were carried out through social groups act as agents of change.

3.2.2.8 Posyandu cadre training program

This activity involved the cadres of the recitation group and the posyandu activists in the Berkoh branch. The training materials include: physical examination methods related to weighing, height measurement, and nutrition for toddlers. Besides, training activities for elderly health post cadres include counseling for healthy elderly people, physically happy and mentally
happy, measuring blood pressure and sugar level, as well as healthy living patterns (interview with Sumardiyah, Kundarti, Kuswuriyah, 25 July 2019). These activities were funded by UPZ-NU based on the congregation groups of mosques and mushala as well as prayer groups. Based on observations of the Posyandu Toddler and Elderly Health Post activities, both activities still existed and were ongoing. There were several findings why this activity was still existed and expected by the cadres because the cadres had a passion and social responsibility regarding the programs of the jama’ah. Likewise, there was a need for housewives for the health of children under five. Meanwhile, the elderly had needs for their vulnerability health. Beside these needs, it was because of the awareness to meet up, and to fill daily activities, and to have refreshing activities (Interview, Mangun, Karwen and Darsini, 27 July 2019).

The data above, provides the argument that efforts to maintain willingness by utilizing strategic space to support the long-term sustainability of the community were empowered [10]. Thus, strengthening the capacity of individuals, groups, and organizations could be built. In this context, an asset mobilization strategy could be implemented by utilizing different resources, both differences in interests and politics. As different interests would be a source of obstacles to the program’s sustainability, and it would become a threat to organizational programs [31][32]. Human Capital is an asset that must be considered, because it could be used as a source of power and organizational strengthening. At least this capitalization is a contributing asset mobilization strategy. Bourdieu’s different concepts [34][35] saw the efforts which were made by Nahdhatul Ulama as a form of social, political and cultural practice that created a stronger image of the organization and stretched its reputation in the eyes of the community[36][37].

4 Conclusion

LAZIS-NU as one of the Philanthropic Institutions in Indonesia has a central strategy that could mobilize rural and urban communities through hundreds of years of institutionalized ritual-religious community traditions activities. These ritual institutions include; groups of yasinan, maulid al Barjanji, dhiba’t, ratiban, mujahadahan, istighatsah, manaqib, and others were used as tools for social movements which affect on group cohesiveness and loyalty.

These groups function as (1) communication and socialization forums for both program and program implementation, (2) strengthening membership in building organizational and religious awareness, (3) specific capacity strengthening targets for increasing business development in the area of mosque-based agriculture and animal husbandry through training in making natural nutrition, natural fertilizers, compost, and rural crop technology.

The finding of the weaknesses in strengthening the community capacity is the lack of continuity and group managerial assistance to develop better.

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References

The Mapping of Sharia Economic Dispute Decisions in Religious Courts

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Abstract. This article analyzes Law No. 3 of 2006, which has extended competence to the Religious Courts in the resolution of Sharia economic disputes. The research data came from the results of the judge’s interview on the court’s decision regarding the validity and competence of the judge. The author finds that in judicial legal considerations in case No. 2074/Pdt.G/2017/PA.Pwt gave rise to the theory that the restructuring of murabaha contracts should not be carried out on debtors who are unable to pay installments by the agreement and auction off collateral items that are correct and not deeds against the law. While case No. 2449/Pdt.G/2018/PA.Pwt in the musharaka contract reject the potential loss by referring to Fatwa DSN No. 43/DSN-MUI/VIII/2014, which states that the amount of compensation in the participation contract is the value of the real loss that must be experienced in a transaction. Legal discovery using the material and formal legal basis with the method of interpretation of the legislation and restrictive method by limiting or narrowing the interpretation of the legislation in the framework of prudence so as not to make a mistake in making a decision.

Keywords: Religious Courts, Dispute, Islamic Economics, Interpretation, Restrictive

1 Introduction

The genesis of Law Number 3 of 2006 about Amendments to Law Number 7 of 1989 about Religious Courts has brought major changes to the Religious Courts in Indonesia. The fundamental change lies in Article 49 point (i) which states that the Religious Court has the duty and authority to examine, decide upon and settle cases at the first level between people who are Muslim in the areas of marriage, inheritance, wills, grants, endowments, tithe, donation, alms, and sharia economics [1]. Where previously, Law Number 7 of 1989 Concerning Religious Courts in article 49 only on cases marriage, inheritance, wills, grants, endowments, tithe, donation, and alms [2].

The issue of the incompetence of the Religious Courts also arose, among others, related to the ability to handle sharia economic dispute cases? There are those who still doubt the ability of Religious Court judges in examining and judging Islamic banking [3]. The existence of stereotypes and stigmatization was also justified by Topo Santoso; according to him, the stereotype must be resisted by building trust and the right image by the Religious Courts themselves [1].

On the other hand, the polemic about the existence of the duties and authority of the National Sharia Abrasive Agency (BASYARNAS) began to narrow in resolving sharia economic disputes. With the existence of Law No. 3 of 2006 automatically, the duties and
authority are in the Religious Courts [4]. What is meant by sharia economics is not only limited by resolving disputes in the banking sector, but also in other sharia economics fields, such as: sharia microfinance institutions; sharia insurance; sharia reinsurance; sharia mutual funds; sharia medium-term bonds and bonds; sharia securities; sharia financing; sharia pawnshop; pension funds for Islamic financial institutions; and sharia business. Sharia economic definitions in the sharia economic law compilation are businesses or activities carried out by individuals, groups of people, business entities that are legal entities, or not legal entities in order to meet commercial and non-commercial needs according to sharia principles [5]. Purwokerto Religious Court is one of the Religious Courts that has a duty as a law enforcement agency in Banyumas Regency, one of its competencies is to decide the sharia economic dispute. In this study, the authors focus on examining the results of judges’ decisions on Islamic economic disputes. In this article, will discuss the fundamental differences between mudharaba and musharaka contracts, because both are the core problems of Islamic economic disputes.

2 Method

This type of research is field research; data is collected from the Purwokerto Religious Court by interviewing judges related to Sharia economic dispute decisions using a descriptive-analytic approach by describing the problem through the collection, preparation, and analysis of data, and then assessing the research problem. In this study, the writer uses a normative approach by looking at law as a whole system covering legal principles, legal norms, and written and unwritten rules.

3 Results and Discussion

3.1 Islamic banking in Indonesia

Islamic Bank in Indonesia was born not apart from the history of Muamalat Bank (1992) using the principle of deposit, mudharaba. The investment of funds on Islamic Bank uses the principle of buying and selling, profit-sharing and rent. Banking in Indonesia is divided into two, namely Commercial Banks and Credit Banks, both Conventional (interest) and Islamic Bank (profit sharing), which synergize in supporting full mobilization of public funds to improve financing capabilities for national economic sectors. The majority of Indonesian people are Muslims (80%), although the legal system is built on the basis of unity in diversity with the aim of unity and integrity [6].

With the enactment of Law No. 21 of 2008 concerning Sharia Banking, which was published on July 16, 2008, the development of the national Islamic banking industry increasingly has an adequate legal basis and will encourage its growth even faster. With its impressive progress in development, which has achieved an average asset growth of more than 65% per year in the last five years, it is hoped that the role of the Islamic banking industry in supporting the national economy will be even more significant.

However, it cannot be denied that Islamic economic growth was also colored by Islamic economic disputes, which were finally decided through Non-Litigation by BASYARNAS and Litigation by the Religious Courts. For example, in the Purwokerto Religious Court alone in 2018-2019, there were 13 economic disputes with five murabaha and eight musharaka cases.
Islamic banks have two leading roles, namely, as a business entity and social agency. As a business entity, Islamic banks have several functions, namely as investment managers, investors, and services. As an investment manager, Islamic banks collect funds from investors/customers with the principle of deposit, mudaraba, or rent. As an investor, Islamic banks channel funds through investment activities with the principle of profit-sharing, buying and selling, or leasing. As a banking service provider, Islamic banks provide financial services, non-financial services, and agency services. Financial services include, but are not limited to the principles of agency, guarantee, money order, pawn, loan, exchange, and others non-financial services in the form of agency services with the principle of restricted mudaraba. Meanwhile, as a social body, Islamic banks have functioned as managers of social funds for the collection and distribution of tithe, donation, and alms, as well as the distribution of benevolent loans [6].

Islamic banks are banks with profit-sharing principles, which are the main foundation in all of their operations, both in the mobilization of funds and in the distribution of funds (in Islamic banking the distribution of funds is commonly referred to as financing). Therefore, the types of fundraising and financing provided to Islamic banks mainly use the profit sharing principle. In addition to the profit sharing principle, Islamic banks also have alternative fundraising and non-profit financing. In raising funds, Islamic banks can also use the principles of agency, loan, or rent. In financing, Islamic banks can also use the principle of buying and selling and leasing. In addition, Islamic banks also provide various financial services such as agency, guarantee, money order, mortgage, loan, exchange, and rent.

The most dominant source of funds comes from the principle of restricted mudaraba which usually reaches more than 60 percent and takes the form of savings, time deposits, or bonds [6]. Pooling funds are then used in the distribution of funds in the form of financing with the principles of profit sharing, buying and selling, and rent. From the profit-sharing principle, the profit-sharing portion is obtained according to the initial agreement (profit sharing ratio) with each customer; from financing with the principle of buying and selling obtained profit margins; while from financing with the rental principle, it is obtained rental income. The entire income from the pooling fund is then collected between the bank and all customers who deposit, save, or invest their money in accordance with the initial agreement. The customer portion or third party rights will be distributed to the customer, while the bank’s portion will be included in the income statement as the main operating income. Meanwhile, other income, such as from restricted mudaraba and financial services, are included in the income statement as other operating income.

In approximately 15 years, before the enactment of Law No.1 of 1974 about marriage until before Law No.7 of 1989 concerning Religious Courts, there is two developments journey of religious justice in Indonesia. First, the process of the birth of Law No. 1 of 1974 concerning Marriage with regulations implementing Government Regulations No. 9 of 1975, secondly the birth of Government Regulation No. 28 of 1977 regarding representation which has been renewed by Law No. 41 of 2004 concerning endowments [7]. The birth of Law No. 1 of 1974 concerning Marriage which applies to all Indonesian citizens on January 2, 1974 has largely met the demands of the Indonesian people. This demand has been echoed since the first Indonesian Youth Pledge in 1928, which was then put forward on other occasions, in the form of hopes of improving the position of women in marriage. This coveted improvement is mainly for the “original Indonesian” group who are Muslim, where their rights and obligations in marriage are not regulated in a written law. Indonesian original marriage laws of Islam that are listed in fiqh books, according to the Indonesian legal system cannot be classified in the category of written law, because it is not written in government regulations.
The next step is the preparation of the religious court bill until its ratification in the DPR forum into Law No.7 of 1989 (29 December 1989) which is a typical phenomenon of the new order, and has happened in 1974, that when it concerns the core values of Islam, members of the DPR who are Muslims have the same position [8]. Although the Protestant and Catholic press vigorously opposed the religious court bill, the discussion proceeded smoothly without obstacles to passing it into Law No.7 of 1989. Ratification of Law No.7 of 1989 on Religious Courts, brought enormous changes to the position of religious justice, not only in its position as a judicial institution as part of implementing the same judicial power as other judicial institutions [9].

However, the ratification of giving full authority which is the main task of the religious court to resolve the cases of Muslims in Indonesia relating to family law. With the birth of the religious court law, the religious court has become independent in Indonesia in upholding the law based on Islamic law for those seeking justice in the religion of Islam relating to civil cases in the fields of marriage, inheritance, wills, grants, and endowments [8].

Thus, Muslims in Indonesia are required to submit their cases to the religious court, which is the authority of the religious court. After two years of enactment of Law No.7 of 1989 concerning Religious Courts, the Presidential Instruction No.1 of 1991 concerning the Compilation of Islamic Law (KHI) was stipulated to support the implementation of religious courts. Compilation of Islamic Law was not born suddenly but experienced an assessment and a process that was not short. Even in the realm of politics. This is done so that the religious court in carrying out its duties and authority has a definite territory and path. Because Law No. 1 of 1974 concerning Marriage does not yet include other Islamic civil cases that should be under the authority of the religious court, not only are the marital issues contained in the marriage law not yet detailed in the marriage matters. In-Law No.4 of 2004 concerning Judicial Power, as an amendment to Law No. 35 of 1999 concerning amendment to No.14 of 1970 concerning Judicial Power, it is explained that judicial power is exercised by courts in the environment of a) general court, b) religious court, c) military justice, and d) state administrative justice [10].

Religious court has are five duties and authorities, namely: 1) The function of the authority to judge, 2) Give information, considerations, and advice on Islamic law to government agencies, 3) Other authorities by or based on the law, 4) The authority of the religious high court hears the case on an appeal level and hears the relative dispute, 5) Has the duty to oversee the proceedings.

In principle, the power and authority of the religious court with other courts, be it the general court, state administrative court, or military court, are the same. However, the difference lies in the power of hearing or cases which become the authority of each court (absolute authority). We can exemplify the absolute authority possessed by religious courts as cases of Islamic justice seekers regarding civil matters such as marriage and inheritance; then these cases become the absolute authority of religious courts to receive, examine and decide on these cases.

As for those who are not Muslim, their case must be submitted to the state court to be settled. However, if cases of justice seekers who have a religion in Islam have been decided by the religious court, then the justice seeker does not accept the decision of the religious court, then it can appeal to a higher institution, the Religious High Court.
3.2 Sharia economic disputes

3.2.1 Overview of purwokerto religious court

Purwokerto Religious Court is a court under the auspices of the Supreme Court located on Jl. Guerrilla No. 7 A Purwokerto with Accredited I A. PA Purwokerto is currently led by chairman Drs. H. Tahrir. With the birth of Law No. 3 of 2006 concerning Amendments to Law No. 7 of 1989 Concerning Religious Courts, PA Purwokerto has the task and authority to examine, decide upon and settle cases at the first level among people who are Muslim in the areas of marriage, inheritance, wills, grants, endowments, tithe, infaq, alms, and sharia economics.

The legal territory map of the Purwokerto Religious Court covers the entire area of the Banyumas Regency, which consists of 16 Districts and 178 Villages. The map of the jurisdiction covers Gumelar District, Lumir District, Wangon District, Rawalo District, Jatilawang District, Ajbarang District, Pekuncen District, Baturaden District, Purwokerto Timur District, Kedungbanteng District, North Purwokerto District, Purwojati District, Purwokerto Selatan District, Purwokerto Barat District, Karanglewas District, and Cilongok District.


Data for 2018-2019 shows that the growth of cases concerning Islamic economic disputes has been developing (Table 1):

<table>
<thead>
<tr>
<th>No</th>
<th>Year</th>
<th>Case Number</th>
<th>Type of Agreement</th>
<th>Length of Court</th>
<th>Verdict</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2019</td>
<td>2169/Pdt.G/2019/PA.Pwt</td>
<td>Murabaha</td>
<td>17 days</td>
<td>Granted</td>
</tr>
<tr>
<td>2</td>
<td>2019</td>
<td>0001/Pdt.G.S/2019/PA.Pwt</td>
<td>Murabaha</td>
<td>16 days</td>
<td>Granted</td>
</tr>
<tr>
<td>3</td>
<td>2019</td>
<td>0934/Pdt.G/2019/PA.Pwt</td>
<td>Murabaha</td>
<td>164 days</td>
<td>In the judge</td>
</tr>
<tr>
<td>4</td>
<td>2019</td>
<td>0531/Pdt.G/2019/PA.Pwt</td>
<td>Murabaha</td>
<td>192 days</td>
<td>In the judge</td>
</tr>
<tr>
<td>5</td>
<td>2019</td>
<td>0398/Pdt.G/2019/PA.Pwt</td>
<td>Murabaha</td>
<td>155 days</td>
<td>Granted by Verstek</td>
</tr>
<tr>
<td>6</td>
<td>2019</td>
<td>0336/Pdt.G/2019/PA.Pwt</td>
<td>Musharaka</td>
<td>63 days</td>
<td>Granted</td>
</tr>
<tr>
<td>7</td>
<td>2019</td>
<td>0276/Pdt.G/2019/PA.Pwt</td>
<td>Musharaka</td>
<td>250 days</td>
<td>Granted</td>
</tr>
<tr>
<td>8</td>
<td>2019</td>
<td>0192/Pdt.G/2019/PA.Pwt</td>
<td>Musharaka</td>
<td>32 days</td>
<td>Peaceful</td>
</tr>
<tr>
<td>9</td>
<td>2018</td>
<td>2795/Pdt.G/2018/PA.Pwt</td>
<td>Musharaka</td>
<td>296 days</td>
<td>Appeal</td>
</tr>
<tr>
<td>10</td>
<td>2018</td>
<td>2449/Pdt.G.S/2018/PA.Pwt</td>
<td>Musharaka</td>
<td>36 days</td>
<td>Rejected</td>
</tr>
<tr>
<td>11</td>
<td>2018</td>
<td>2450/Pdt.G.S/2018/PA.Pwt</td>
<td>Simple Suit</td>
<td>42 days</td>
<td>Rejected</td>
</tr>
<tr>
<td>12</td>
<td>2018</td>
<td>1491/Pdt.G/2018/PA.Pwt</td>
<td>Musharaka</td>
<td>354 days</td>
<td>Peaceful</td>
</tr>
<tr>
<td>13</td>
<td>2018</td>
<td>0217/Pdt.G/2018/PA.Pwt</td>
<td>Musharaka</td>
<td>167 days</td>
<td>Rejected by Verstek</td>
</tr>
</tbody>
</table>
3.2.2. Overview of case no. 2449 / Pdt.G.S / 2018 / PA.Pwt

Case No. 2449 / Pdt.G.S / 2018 / PA.Pwt is an Islamic economic dispute related to defaults on community contracts between Islamic Banks as plaintiffs against their customers. In the dispute it states that:

− Plaintiffs and Defendants I and Defendants II agreed in a musharaka Contract on the Working Capital for the Construction of a Shophouse that funds Rp. 250 million consisting of Rp. 135 million from Sharia Banks (Plaintiffs) and Rp. 115 million from customers (Defendant I and Defendant II);
− The contract period is 4 months starting on February 21, 2017 and ending on June 21, 2019;
− Plaintiff and Defendant I and Defendant II agreed with the distribution of the ratio as follows: The Plaintiff received 54% while the Defendant 46% of the musharaka contract profit;
− Defendants I and Defendant II are bound by an agreement to return capital of Rp. 135 million and projected profit sharing of Rp. 9,452,000.

Then in reality after Defendant I and Defendant II had only returned the capital costs as much as Rp. 48,715,241, - so that the capital paid is Rp. 86,284,759, - and have not paid the profit sharing of Rp. 9,452,000,- so Defendant I and Defendant II have breached the contract (breach of contract). The total losses that have not been paid until September 2018 or for 15 months are as follows:

− Remaining the Capital: Rp. 86,284790.
− Projected profit-sharing that hasn't been paid for 15 months: Rp. 42,534,000.
− Total loss: Rp. 128,818,759.

The judge's decision is granted

3.2.3. Overview of Case No. 2074 / Pdt.G.S / 2018 / PA.Pwt

Case Number 2074 / Pdt.G.S / 2018 / PA.Pwt is a Sharia Economic Dispute case regarding a default on the murabaha financing contract that occurred between the Sharia Bank as the plaintiff and its customers (Defendant I and Defendant II). In the dispute it states that:

− On May 28, 2015 the defendant received a working capital murabahah financing agreement with the following details:
  b. Margin : Rp. 316,000,000.
  c. Duration of : 72 Months
  d. Maturity : May 25th, 2021
  e. Payment every month : Rp. 9,250,000.
  f. Total Debt : Rp. 666,000,000.
− Collateral in a murabahah financing agreement is a plot of land covering an area of 305 m2.
− Defendant experienced difficulties in payment so that the repayment period was extended to 103 months.
− Rescheduling of the contract with the following conditions:
b. Profit : Rp. 243,150,000.
c. Duration of : 103 Months
d. Total Debt : Rp. 512,400,000.

- The remaining debt from the defendant

- In the contract, the defendant included a plot of land covering an area of 305 M2.
- The judge's decision is granted

4 Conclusion

Legal considerations in deciding Sharia economic dispute cases in the Purwokerto Religious Court refer to formal and material law, whereas in case No. 2074 / Pdt.G / 2017 / PA.Pwt on murabahah contracts with the Kabul verdict for the whole so that the theory emerges that the restructuring of murabahah financing contracts should not or should not be done to debtors who clearly cannot afford to pay installments in accordance with the agreement and auction off goods in the form of a plot of land measuring 305 m2 is a righteous act and not an illegal act, so collateral is the plaintiff's right. Whereas in case No. 2449 / Pdt.G / 2018 / PA.Pwt on a musharaka contract with a ruling granting it to others and rejecting potential loss by referring to Fatwa DSN No. 43 / DSN-MUI / VIII / 2014 which states that the amount of compensation may not be added to the contract and must be based on the value of the real losses that must have been experienced in the transaction, while the definition of real costs are costs incurred in the context of collection of rights that should be paid by customers, litigation costs and other costs incurred as a result of the dispute resolution process (litigation).

References


Resilience of Students in Bhayangkara Jakarta Raya University whom had Character Building Program in Facing Covid-19 Pandemic

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**Abstract.** Since March 2020, Indonesia has been fighting Covid-19 pandemic that effects people’s live in almost all aspects. Difficulties are inevitable and to survive, human must have to ability to bounce back from adversity, frustration, and misfortune. In Bhayangkara Jakarta Raya University, every students learn about character building which contains several themes such as problem solving and empathy. Thus themes were aimed to help them shaping good quality within. This study aimed to find out the level of resilience of students in this pandemic situation. Method of this research was descriptive statistic to analyze information about the level of students’ resilience. Online questionare were given (N=127) in order to collect data needed for this research. Based on data analysis, 81,1% students were able to bounce back and handle difficulties they met during this pandemic. Character Building as a subject on college helped students develop resilience within.

**Keywords:** Character building, pandemic, resilience

1   Introduction

Indonesia has been fighting Covid-19 pandemic through this 2020. Since March, the government stated an emergency status due to this situation. Indonesian Covid-19 Task Forced reported 452,291 confirmed cases until the beginning of November and the number is increasing everyday [1]. In West Java, 42,572 infected and Bekasi scored 8336 total suspect. This data showed how great the increasing of reported cases happening right now.

As we know, this pandemic effects almost every aspects of human’s life. Not only health, but also economic, financial, and education as well. In life, difficulties often occurred and human strive to survive. Because some individuals have the resistance to environmental risk experiences shown called resilience [2]. Youth with assets and resources will be able to develop healthy even in this kind of pandemic situation [3]. There is evidence from studies in humans and in experimental animals that resilience can result from a history of stress [4]. Stress is a reality of life and it happens as long as human exist. Stress can cause bad effect for some people, but some others don’t. According to previous research, both men and women were facing several psychological problems during pandemic [5]. Including most of students whose school were closed and applied study from home at this moment.

From time to time, the definition of resilience has grown not only the ability to bounce back, but also adapting well in the face of adversity, trauma, tragedy, threats or even significant sources of stress [6]. An individual may adapt well to stress in a workplace or academic setting, but maybe not in their personal life [7]. Therefore, they should learn skill that can help them
coping with stress and inhabit good character. Resilience relies on personal strengths as well as the resources from environment [8]. According to Dr. Rachel Yehuda, resilience can be defined as moving forward in an insightful and integrated positive manner [9].

Everyday, the number of Covid19 cases has been rising in Indonesia especially in Jakarta and West Java. University of Bhayangkara Jakarta Raya, is one of college that located in Jakarta and Bekasi, two cities that have quite high Covid19 reported case. Also effected by pandemic, this university has different ways in preparing their students in facing many difficulties in life. Through character education, students character is strengthen by special subject, called character building [10]. Every students learn about character building which contains several themes such as problem solving and empathy. Thus themes were aimed to help them shaping good quality within. Teachers are the central of natural mediator, in the level of university, lecture plays the role as teacher. Research found that teacher-delivered intervention enhancing student’s resilient coping [11].

The Character Building (Table 1) is one of mandatory subjects that every students in Bhayangkara should take on their first year of college. University provide lecture with Psychological educational background that will teach this subject. Each lecture deliver the same lesson plan in all Character Building classes. Program implementation begins with lecture’s meeting to ensure mutual understanding among them. On this meeting, modules are provided so each lecture can read it first before they start on assignment. Further discussion is also being maintained during session 1-16 about anything that has to do with the subject. A lecture coordinator chosen in order to monitor and evaluate this program from the beginning until the end of semester.

During session 1-16, students will learn various things about human’s character, this include 2 sessions for mid and final term exam as an evaluation. The modules are designed to provide student enough information and also to reinforce life skill on shaping behavior and building positive character. This approach is based on the basic principle learning where students exercise those valuable things they learn in everyday life.

Skills acquired during the program continue to be implemented and practiced throughout the years’ students proceed in college. The way they behave in the class, how they interact with lecture and among friends are some of area implementation of character building. Not to mention how they deal with problems and ways to solve, also require good character. As we know, college students mostly are adolescence and early adulthood that usually have to deal with various problems (academic, interpersonal relationship, family, work, etc). Intervention to enhance resilience can be administered before, during or after stressful/traumatic situation (e.g. covid19 pandemic) [7].
Table 1. The Characteristic Building Program

<table>
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<tr>
<th>Session 1: Human Nature</th>
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<tr>
<td>Session 2: Personality Characteristic</td>
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<td>Session 3: Self-Acceptance</td>
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<td>Session 4: Know Yourself</td>
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<td>Session 5: Self-Improvement</td>
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<td>Session 6: Social Interaction</td>
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<td>Session 7: Social Behavior</td>
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<td>Session 8: Human and Environment</td>
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<td>Session 9: Moral and Virtues in Life</td>
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<td>Session 10: Leadership</td>
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<td>Session 11: Attitude and Respect</td>
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<td>Session 12: Resilience</td>
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<td>Session 13: National Security</td>
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<td>Session 14: Self-Achievement</td>
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</table>

Though resilience may change over time as a function of development and one’s interaction with the environment [7]. For example, a college student maybe resilience in facing new method on learning during pandemic, but may interveve with other problems during adolescence. Other example, student’s ability in problem solving related to academic matter with personal conflict during developmental shift from adolescence to early adulthood. It is important for lecture to encourage students to implement knowledge they gain from this program into real life. Because it’s really aplicable in almost every aspects of daily lives.

The purpose of this study is to find out the level of resilience of college students whom has learned character building. The method used to analyze data collected through online questionnare was descriptive statistic. Some literature review also conducted to provide theory based for the study.

2 Method

The method of this research used descriptive statistic to describe the level of students’ resilience in University of Bhayangkara Jakarta Raya [12]. Total sample were 127 (N=127) with online questionnare given as measurement tool. This Resilience tool was adapted from Connor-Davidson Resilience Scale (10-item CD-RISC).

3 Results and Discussion

Based on the calculation result data collected from 7 faculties (N=127); Law, Economy and Business, Computer, Communication, Education, Psychology, and Technology, level of resilience was shown in the following Table 2.
From Table 2 the categorization showed 81.1% students have high level of resilience. While 10.2% at average level, and the rest 8.7% were low. This means that most of students are able to bounce back and handling difficulties during this pandemic. The program proved to be effective on promoting good character and behavior as well.

This finding was similar to previous study that showed students with good character building has good ability survive from many pressure in life [13]. Since this character building program was build through special subject that all students must take in the beginning of their study, it really helped them building resilience within.

The present study focused on delivering information about character building, this shown clearly on the theme each session. Lecture also play as role-model for student, promoting good character in everyday life. Evidence indicates most of students not having trouble in handling problems, especially during this pandemic. Character building program gave positive impact. Our result suggest that this program is worth it and useful because it benefits students for the proceeding years ahead.

From Table 3, data showed that the respondents of this research are mostly girls (78%), while boys are only 22%. This data needed to be elaborate further for more interpretation.

4 Conclusion

Based on the results of this study, it can be concluded that resilience can be obtained through character education. Besides that, youth that often catalog risk and fixing problem should be provided with program that enhance support within. To enhance resilience at a specific level may involve intervention on a different level. By strengthening student’s understanding through Character Building subject, University Bhayangkara Jakarta Raya has succesfully directing resilience in present and future stressful situation.

Additionally, this study suggests further elaboration on others factor such as psychological well-being, learning style, and bigger sampling among 7 faculties in University Bhayangkara Jakarta Raya. Also, it would be important to measure before-after the program was delivered to students. The number of equal gender in participants should be balanced in the next research.
Acknowledgements

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References

Islamic Political Theory during the Abbasid Government and its Implications Toward Education

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Abstract. After the Prophet died, the succession of leadership was a difficult and tense political issue that was able to undermine the joints of the ummah that the Prophet had built firmly. This situation continues from generation to generation. Likewise with the political theory of the Abbasid era. The collapse and fall of the Umawiyah Daulah in 750 AD and the rise of the Abbasid Daulah were not only a change of dynasties but more than that, namely a change in social and ideological structures. The purpose of this study is to reveal the Islamic political theory of the Abbasid era in relation to the concept of education. The method of writing in this article is to use the library research method, which is carried out by studying the literature and writings that are closely related to the problems raised in this article's research. The Abbasid Daula was the longest dynasty that was able to maintain its power and bring Islam to its golden age. And this is inseparable from the role of a leader who is wise and fair to those he dreams of. And the basis of Abbasid power is religion and legal issues that do not differentiate all groups. For the Abbasids, science is very important for the progress of a country, especially concerning religious sciences and also other sciences such as linguistics and history, because scholars and scholars are born from a science. The collapse of the Abbasids resulted in Islamic education also experiencing a setback, among which setbacks were marked by the development of Sufi teachings, then a narrowing of the Islamic education curriculum which had an impact on intellectual development. On the other hand, intellectuals did not develop due to the paradigm among the Muslims at that time that the door to ijtihad had been closed.

Keywords: Jakarta politics, islam, abbasidis, education

1 Introduction

A vision of the holy religion under Prophet Muhammad SAW is "ummatan wahidan", namely the people who are united and are not divided. The Prophet's social conditions were contrary to his vision; this made the Prophet's struggle even harder. The life of tribalism (tribalism) that was adopted by the Arabs at that time seemed as if there was no gap to find a common ground between the tribes that often contradicted one another. There is no legal umbrella, except for "natural law" which states that superiority and strong lineage become weak rulers. The Prophet's patience and persistence, in the span of approximately 23 years, succeeded in realizing this vision with the birth of the Medina state and its social institutions as reflected in the Medina declaration. At that time Islam had begun to enter the world of politics. This then becomes the hallmark of Islam that Islam is a complete and comprehensive way of life. Religion has an organic integral relationship with politics and society in all areas of Muslim life [1].
Politics comes from the Greek word polis which means city. Meanwhile in modern times the term politics means "the art or science of government; a science that deals with the principles of regulation and supervision of the people who live in society "while the term 'state' means the state comes from the Latin word status, according to Wester's Dictionary, a state is a number of people who live in a certain area permanently, politically organized under a government. which is sovereign, completely free from outside control and has coercive power in order to maintain order in society [2].

After the Prophet's death, the succession of leadership was a difficult and tense political problem that was able to undermine the joints of the ummah that had been firmly built by the Prophet [3]. This situation continues from generation to generation. Through quite heated discussions at the Bani Sa'idah Hall, the Muslims finally agreed to choose Abu Bakr as the community leader (the first caliph) after the Prophet. This was the first shura system that resulted in the decision to appoint a caliph after the death of the Prophet. This is also the basis of Sunni ideology politics in the future. History records that the first four successors of the Prophet were just and righteous leaders. They are ideal leaders, traditions from the teacher for the advancement of Islam and its ummah. Because of that they are given the title "who gets guidance on the straight path" (al-khulafah ar-rashidin) [4].

Abbasid rebellion, which brought Abu al-Abbas as-Saffah to the throne of the caliph and the death of the last Umayyad caliph [5]. The fall of the Umayyah can be traced to the growing strength and disappointment of the mawali or non-Arab Muslims, the breakdown of the unity of the Arab tribes, and the disappointment of most members of the general religious movement, and the spread of longing for a political savior, a charismatic leader. These four factors represent the various forces at work in the empire, and the combined victory of these forces will undoubtedly bring about major changes in the social and political structure. At the same time, support for the Abasiyah also came from many heterogeneous elements so that some of the extremists among them would surely feel dissatisfied [6].

The discontent of non-Arab Muslims played a major role in the downfall of the Umayyads as their numbers continued to grow. The Abbasids were thus forced to eliminate these causes of discontent, not only in return for their contribution to the victory of the dynasty, but also for their importance in the caliphate. Non-Arab Muslims want equality with Arabs. They are no longer second-class citizens who suffer as deprivation, but want to enjoy all the privileges of the Arab people, not only in the economic sphere [6].

When the Umayyads came to power, Mu'awiyah ibn Sufyan opened a new chapter of an ummat leadership determined by lineage, descent and ethnicity [7]. This means that what the Prophet aspired to do to distribute justice through Islam to the entire ummat without commanding lineage or ethnicity was eroded again. The Umayyads were born and started with historical scars that still hold the bodies of the Muslim community. Massive expansion was carried out by the leader of the Umayyad Daula to spread Islam, perhaps from there the conception of jihad and war is increasingly difficult to remove.

As a means of revelation, Muhammad not only brought the doctrine of the means to draw closer to God to mankind, but also social ethics which neutralized many elements that were considered "natural" only to humans as social creatures. In Medina he (Muhammad) had formed a sacred community, a brotherhood of Muslims in the world but did not love the world. The first four caliphs were best at defending this ideal. With the rule of the Umayyad dynasty, it began to strike at its roots, that's the case for Muslim historians, the process of secularization which has never been restored since then. Mu'awiyah achievement does not create balance, because that achievement is the achievement of the "emperor" because of that he is often referred to as the Muslim emperor [8].
During the Abbasid era a system of government was built, of course, it could not be separated completely from the joints built by the previous empire. In their propaganda, they want to uphold justice based on equality of rights, restore the condition of the Muslims as in the time of the Khulafah al-Rashidin because the Umayyads considered them to have deviated. Likewise, Muslims are very hopeful about the big changes made by the Abbasids.

How were the Abbasids able to realize the hopes of Muslims? This paper will describe the Abbasid dynasty, especially those related to the political aspects as well as those that surround it. Because in historical records the Abbasids were the longest dynasty that was able to maintain their power and bring Islam to a golden age.

2 Method

The method of writing in this article is to use the library research method, which is done by studying the literature and writings that are closely related to the problems raised in the research of this article. this is intended to obtain complete information and determine actions to be taken in scientific activities.

This research uses descriptive analysis method, which describes in depth what it is objectively in accordance with the data collected. And relevant past research that others have already done. This research is philosophical in nature, namely research that describes and reports a situation, a certain object is then analyzed more critically

3 Results and Discussion

3.1 The history of the abbasid establishment

The Abbasid Daula was founded by Abdullah ibn al-Abbas from the Hashim group in Mecca. He came from the family of the Prophet's uncle. Its power lasted for a fairly long period of time, from 132 H / 750 M to 656 H / 1258 M The Abbasid dynasty was a caliphate that replaced the Ummayyah dynasty in Damascus, after successfully overthrowing this power in 750 M [9]. The Abbasids held fast to their rule until it was crushed by the Mongol Invasion on 656 H / 1258 M [10].

Towards the end of the Umawiyah Daula I [11], There are various kinds of chaos which are caused by:

− Continuous oppression of the followers of Ali and Bani Hashim in general.
− To humiliate non-Arab Muslims so that they are not given the opportunity to be in government.
− Offensive violations of Islamic teachings and human rights.

Therefore, it is logical for the Bani Hashim to seek a way out by establishing a secret movement to overthrow the Umawiyah daulah. This movement collects [11]:

− Descendants of Ali (Alawiyin) the dreamer Abu Salamah.
− Descendants of Abbas (Abbasid), the leader Ibrahim al-Iman.
− Descendants of the Persian nation of the leader Abu Muslim al-Khurasany.

Daulah Umawiyah and Daulah Abbasiyah there are several differences, including:
Umawiyah still maintains and glorifies the pure Arabs, both the caliphs or employees and their people. As a result, there was a kind of caste in a country that was still pure Arab, occupying the highest class besides mixed descent and foreigners called Mawali. The Abbasids were not that strict anymore, only the caliphs were from Arabia so that the term Mawali disappeared; even the ministers, governors, commanders and employees were appointed from the Mawali group, especially the Persian group.

The capital of Umawiyah, Damascus, is still characterized by the tradition of ignorance, sprinkled with Byzantine and Persian splendor. Meanwhile, the Abbasid capital, Baghdad, was thoroughly immersed in Persian and became an international city.

Umawiyah was not the Prophet's family, whereas the Abbasids based the caliphate on the Prophet's family (Abbas was the Prophet's uncle).

Umawiyah culture is still in the Arabic style of ignorance with the splendor of poetry and storytelling. Meanwhile, Abbasid culture opened the door to all advanced cultures so that Arab, Persian, Greek, and Hindu cultures were assimilated.

The Caliph Umawiyah was fond of verse and kasidah as in the days of the splendor of the Arabic literature of ignorance. Meanwhile, the Abbasid caliph was fond of science as a result of which science became the center and even reached its maturity [11].

3.2 Abbasid political movement

Before it officially became an Islamiyah daulah, the Abbasids were a political movement that succeeded in seizing the Umayyad political rivals to fight under one "ahlul bait" flag with a campaign to destroy the Umayyad Dynasty which was considered to have come out of Islamic teachings [12]. The originator of the Abbasid movement was Ali bin Abdullah Bin Abbas who was later succeeded by his son Muhammad bin Ali (Syl'atuhs Abbas) [13]. Among the steps taken was to send da'i disguised as traders or regional pilgrims, forming resistance factions in Humaimah, Kufah and Khurasan, enforcing the idea of equality between Arabs and non-Arabs [14].

According to Atho Muzakkar there are four theories behind the rise of the Spirit of Bani Abbas, namely [12]:

- Theory of racial factionalism (National Grouping). Daulah Bani Umayyad is a daulah that concerns the interests of the Arabs and neglects or excludes the interests of the non-Arabs (mawali) even though they have entered Islam, so that the mawali people feel disillusioned and gather forces to overthrow the government of the Umayyads.

- Sectarian Factionalism Theory (Grouping of Religious Groups). The Shiites were political opponents of the Umayyads who considered seizing the caliphate from the hands of Ali ibn Abi Talib. The Shiites held a coalition with the Abbasids led by Ali bin Muhammad, and the khawarijs continued to push to overthrow the existing government.

- Qabilah Factionalism Theory (Tribal). The great and influential tribalism of the Umayyad dynasty was the Mudhariyah (Northern Arab tribe) and Yamaniah (Southern Arab tribe). During the Umayyad Dynasty if one tribe supported the caliphate, then the other tribe acted as the opposition. This conflict continued to spread and extend beyond the boundaries of tribal areas to the khurasan, because previously the Abbasids had controlled Khurasan in anetorial and political way.

- The Theory of Regional Injustice and Disparity. The limposity in making economic policy, especially in paying taxes and land management rights in newly conquered territories is the cause of injustice committed by officials during the Umayyad
caliphate. This led the citizens to rebel against daulah umayyads because of perceived economic discrimination.

The four theories combined will get an idea that the area of Islamic rule along with the citizens of the country converted to Islam but not accompanied by economic justice in terms of paying taxes and paying farmland rent. In addition, each new conquest is also accompanied by data of relatives of relatives of the soldiers or indeed deliberately brought to settle in a conquered area and the relatives of these soldiers who cultivate agricultural land but also pay the rent of land of the same size as the tax of the conquered population who have not converted to Islam.

On the other hand, the conquered populations are also required to follow militarization (military education) but they get unfair treatment, namely soldiers from Arab tribes get salaries and benefits in the form of land that is not taxed, and if the soldiers are from the mawali and non-Muslims they are only paid and do not get benefits.

The process of Islamization of the indigenous peoples of the conquered country was not accompanied by the attention of the Umayyad government to send clerics to the conquered country as religious teachers, quite the contrary the opposition movement (Sy'iah and khawarij) that sent clerics throughout the conquered country and this as a means to build a power base to overthrow the Umayyad Dynasty[12].

For about 50 years the Abbasids were an underground movement. After Imam Muhammad bin Ali died (125 H / 742 AD) and replaced Ibrahim bin Muhammad changed his movement is open by holding a rebellion against the Umayyads. The insurgency was gained by Abu Muslim al-Khurasani, who received a lot of support from mostly Arabs, especially disillusioned citizens living in Merv, Yemen's Arab group, the Mawali and shi'ite groups. The war took place on the banks of the Tigris river directly facing the caliph Marwan II (Marwan bin Muhammad) with victory on the side of Abu Muslim al-Khurasany, so Marwan II fled with his troops to Egypt to seek refuge, but was still pursued by abbasid forces led by Abdullah bi Ali, Abu Abbas's uncle. So there was a war on the Zab river located between the town of Mousul Samarrn in Late Jumadil 132 H / 750 AD. Finally he was killed by Shaleh bin Ali bin Abdullah (son of Uncle Abu Abbas), with this ended the Umayyad Dynasty in power approximately 90 Years and began a new power that is the Abbasid Dynasty[13].

The politics run by the Abbasid daulah are:

− Power is fully held by the caliph who maintains pure Arab ancestry assisted by the Vizier, Ministers, Governors and commanders and officials from various nations and at this time who are being widely appointed from the Mawali faction of Persian descent.
− The city of Baghdad as a city of state, became a center of political, social and cultural activities, made an international city that is open to all nations and beliefs so that gathered there arabs, Turks, Persians, Romans, Kurds and so on.
− Science is seen as a noble and noble thing. The caliphs and other authorities opened the widest possibilities for the advancement and development of science. The caliphs themselves are generally scholars who love science, respect scholars and glorify poets.
− The depravedness of thinking is fully recognized. At that time reason and mind were freed completely from the shackles of taklid, a condition that causes people to be very free to express opinions in all fields including religion, philosophy, worship and so on.
− Ministers of Persian descent are given full rights in running the government so that they play an important role in fostering Islamic civilisation. they love science very much and make their wealth to improve people's intelligence and advance science[11].
3.3 The political period of the Abbasid Daula

The third period in the basic drama of Islamic politics opened with the role of caliph Abu al-Abbas who proclaimed the establishment of Daulah Abbasiyah in the Year 132 H / 750 AD. At the time of his penobata at the Kuffah Mosque, he called himself al-Saffah (blood-eater) who eventually became a nickname. It’s a bad start where his power depends on the murder he's used as his political wisdom [7].

The basis of the government was successfully laid by Abu Jafar Al-Mansur, the second caliph after Abu Abbas. Al-Mansur put the laws of the state with his mind, a personal legal system bound by the sharia of the Qur'an. Al-Mansur once said, "it is the sultan of God on his earth. I lead you with his gifts, direction and support. I guard and do it with his will and desire. And I gave it to him with his permission [15].

Abbasid dynasty is the longest dynasty capable of bringing Islam to its peak of glory, is the golden age in the course of Islamic history (750-1258) [16]. Judging from the process of forming the Abbasids was established on the basis of the following:

- Unity to deal with divisions arising from the previous dynasty.
- Universal and not based on tribal aspects.
- Politics and administration as a whole, not appointed on the basis of nobleness.
- Common relationships in law for every Islamic society.
- The government is moderate Muslim; The Arab race is simply seen as one part of the other races.

The right to rule as heirs of the prophet is still in their hands [17]. Under abbasid rule the world of science experienced a golden age especially in the first two hundred years. Thanks to the leeway and support of the rulers the activities of scientists soared. So many written works from scientists in various branches of science, both religious and general. This caused concern and desire among scientists to study the problem of statehood rationally which then gave birth to Islamic thinkers who had successfully systematically compiled the caliph of the Abbasids and ran the wheels of government.

Hedonism and a secular system of government are believed to be the triggers for the retreat of the Abbasid caliphate. This condition began to be felt from the leadership of Caliph Al-Mu'ti to Al-Mu'tasim (945-1258 AD). As a result, the central caliphate weakened a number of regional rulers (governors) to look at the autonomous. Governors based in the western Baghdad region are trying to disobey the central caliphate in Baghdad. It was in such turmoil that Hulaghu Khan's army with the Tartar army in AD 1258 destroyed Baghdad [18].

3.4 Development of science during the Abbasid period

X century AD is called the century of development daulah Islamiyah where the Islamic world, ranging from Cordove in Spain to Multan in Pakistan, experienced development in all fields, especially in the fields of science, technology and the arts. The Islamic world at that time was advanced, triumphant, prosperous. Otherwise the Western world is still in a dark, stupid, and primitive state. The Islamic world has been busy conducting investigations in laboratories and observatories; The Western world is still preoccupied with the hourly and the gods. This is because the religion under the Prophet Muhammad has caused an impetus to foster a new culture, namely Islamic culture. The encouragement first drove the creation of sciences in the field of religion (science naqli), emerging religious sciences in various fields. Then when Islam came out of the Arabian Peninsula, they found the Greek treasury [19].
It is told by Syed Amir Ali (Islamic Culture) quoted by Musyrifah Sunanto in his book Classical Islamic History, that the origin of the arrival of Greek culture is Greek philosophers who fled their country because they were chased by their king due to madzhab differences. In fact, they were systematic constituents of science, but when Greece was colonized by the Romans, its Christian kings did not tolerate it. The reign of King Constantine the Great (d. 366 A.D.), the library, founded by a liberal weaning king, was dissolved or destroyed, knowledge regarded as cursed magic, philosophy and science exterminated [11].

The Intellectual Awakening Movement was marked by the project of translating Works in Persian, Sanskrit, Syrian, and especially greek-speaking Arabic, the establishment of a center for the development of science and library namely Bait al-Hikmah, and the establishment of sects of science and religion as the fruit of freedom of thought [20].

The movement to build knowledge was largely pioneered by the caliph Ja'far al-Mansur. After he founded the city of Baghdad (144 H / 762 AD) and made it the capital of the country. He attracted many scholars and experts from different regions to come and live in Baghdad. It stimulates the bookkeeping efforts of religious sciences, such as fiqh, tafsir, tawhid, hadith, or other sciences such as language and historical sciences [20].

4 Conclusion

The beginning of the appearance of the Abbasids was a political movement that propagated the rescue and straightening of the Muslim Ummah government (Bani Umayyah) who were considered to have kept Islamic teachings. Finally it succeeded, under Abu Abbas as-Saffah the Abbasids were proclaimed to be Muslims in 750 AD / 132 H, after succeeding in overthrowing the Umawiyah (Marwan bin Muhammad). The Abbasids were able to lead Muslims for approximately 5 centuries, ranging from 750 to 1258 AD, and were able to bring Islam to the peak of glory that became a qibla for the world of science, especially during the caliph al-Ma'mun. The development of science during the Abbasid period was very advanced, successful and rapidly developing. Especially religious sciences, such as fiqh, tafsir, tauhid, hadith, and other sciences such as language and historical sciences. So that the religion under the Prophet Muhammad has caused an impetus to foster a new culture that is Islamic culture.

The collapse of the Abbasids could result in Islamic education also experiencing a setback, among which setbacks were marked by the development of Sufi teachings, then a narrowing of the Islamic education curriculum which had an impact on intellectual development. On the other hand, intellectuals did not develop due to the paradigm among the Muslims at that time that the door to ijtihad had been closed. With the collapse of the Abbasid empire there was no longer any possibility of telling the history of the Middle East from a central point of view. All of these things resulted in the emergence of a new pattern in the Islamic world which was separated by regions which became a model for the further development of Islam and this we still feel today.

In the author's analysis, there are several things that need to be a big note in the history of the leadership of the Abbasid Daula, and I think these can be important lessons that need to be applied in the Islamic world today, especially in the world of education. First, the Khilafah or al-Imamah is an important institution in Islam. This term refers to the state or government. The Khilafah is the mother of all institutions, without which all institutions lose their principles and support. Internally, the caliphate is the implementation of sharia, the comprehensive application of the individual and the institution is the first means of bringing about justice. Externally the caliphate is responsible for the welfare and peace of the ummah, is responsible for ordering
people to submit to it, and is also responsible for a new world order that is peaceful and just on earth. And this is what the Abbasid daulah did during his leadership. Second, the Abbasid Daula was the longest dynasty that was able to maintain its power and bring Islam into a golden age. And this is inseparable from the war of a leader who is wise and fair to those he dreams of. And the basis of Abbasid power is religion and legal issues that do not differentiate all groups. Third, for the Abbasids, science is very important for the progress of a country, especially concerning religious sciences and also other sciences such as linguistics and history, because scholars and scholars are born from a science.

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References

Analysis Facilities, Customer Value on Passenger Satisfaction of Jakarta's Mass Rapid Transit (MRT) Train using the PLS Model

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Abstract. On April 1, 2019, the Jakarta Mass Rapid Transit (MRT) Train has officially operated. Several problems have been complained by passengers, namely regarding the perception of ease of transactions and customer value, where these things are very important to meet customer satisfaction. This research uses PLS 3.0 software by analyzing the validity & reliability test, as well as the t test. The results of the analysis were obtained to test the validity and reliability of all of the values that were valid & reliable. Meanwhile, the t test shows that the variable customer value has a positive effect on passenger satisfaction. Likewise, the facilities variable has a positive effect on passenger satisfaction. Even though the results have been good, it is recommended that the MRT Jakarta Train Management can provide even better passenger satisfaction, such as providing facilities for persons with disabilities and need to add seats to wait and also integration packages with other transportation modes.

Keywords: Facilities, customer value, passenger satisfaction, MRT Jakarta

1 Introduction

Along with the times, in the present era, transportation is a necessity that cannot be separated from people's lives in carrying out their daily activities. Every company strives to provide the best service at a reasonable price for all its consumers (passengers) so that they feel satisfied with the services they consume and end up creating customer satisfaction [1].

On April 1, 2019, the Jakarta Mass Rapid Transit (MRT) Train has officially operated. Some of the problems complained by passengers, namely regarding customer facilities and value, where these things are very important to meet customer satisfaction. Customer satisfaction is the main focus or goal of PT. Mass Rapid Transit Jakarta in serving consumer needs. Satisfied consumers will continue to be loyal customers of PT. Jakarta's Mass Rapid Transit which can be used as a free promotional media for companies.

According to Nuryani, N. [2] in measuring the factors that affect passenger satisfaction, a standardized measuring device is needed, this is to ensure the consistency of measurement and the accuracy of the data collected. A standard measuring instrument must meet the psychometric criteria, namely validity and reliability. The questionnaire (measuring instrument / instrument) is generally a tool used to measure natural phenomena and observed social phenomena (Azwar, 2006). The questionnaire plays an important role in determining the quality of a study, because the validity of the data obtained will be largely determined by the quality of the questionnaire used, the data is a description of the variables studied and serves as a means of proving the
hypothesis, so that the data does not depend on whether or not the questionnaire collects data (Djaali and Muljono, 2004). The validity and reliability study of the Japanese general nutrition knowledge questionnaire (JGNKQ) received a good validity test, the reliability test with the test-retest obtained a value of $r = 0.75$ (Matsumoto et al., 2017). Research on the reliability of knowledge of nutrition in obese adolescent (KNOA) obtained cronbach $\alpha$ values = 0.788 - 0.807 (Pinho et al., 2013). The quality of the questionnaire is determined by the validity (validity) and reliability (reliability) of a questionnaire (Emilia, 2008). Based on these descriptions, so that the purpose of this study is to assess the validity and reliability of the questionnaire on facility variables, customer value and passenger satisfaction in the Jakarta Mass Rapid Transit (MRT) Train [2].

2 Literature Review

2.1 Customer satisfaction (train passenger)

Customer satisfaction plays an important and critical role for the continuity and development of a company's life. By listening to consumers and then responding to their wishes or requests, it will provide more satisfying results and make consumers loyal. Previous research on train passenger satisfaction with the title "Analysis of the effect of punctuality, facilities and ticket prices on train passenger satisfaction at Purwosari Station" [3], the results show that timeliness, facilities, and ticket prices simultaneously have a positive effect, and significant to the passenger satisfaction of the Bengawan Train at Purwosari Station. Similar research on train passenger satisfaction with the title "The influence of trust factors, service quality, and facilities on train customer satisfaction"[4], the result is that trust has a positive and significant effect on customer satisfaction for economy class train transportation services. Service quality has a positive and significant effect on customer satisfaction in economy class transportation services. Facilities have a positive and significant effect on customer satisfaction for economy class train transportation services. The same research on train passenger satisfaction examines "The effect of facility accuracy, service quality and facilities on public satisfaction of mass train users (Mass Rapid Transit) across Surabaya Lamongan at Pasar Turi Surabaya Station, research results"[5], namely Service Quality and Facilities have a positive effect on Customer Satisfaction in using the commuter train across Surabaya-Lamongan.

2.2 Facilities

Facilities are physical resources that exist before a service can be offered to consumers. Research on facilities with the title "The effect of facilities and service quality on customer satisfaction at Pertamina gas stations 54,612.64 in Sidoarjo" [6], the partial test results show that the facilities have a significant and positive effect on customer satisfaction who fill the ingredients. fuel at gas stations 54,612.64 Sidoarjo. Similar research on facilities examines "The effect of facilities on customer satisfaction at Aston Madiun Hotel & Conference Center"[7], the results of the study stated that facilities have an influence on customer satisfaction.
2.3 Customer value

According to Balqis (2009) [8] The value of penggan is a comparison between the benefits felt by the penggan and what the customer spends to get or consume the product/service. In his research Woro (2003) in the title "The effect of customer value and service quality on customer loyalty, through customer satisfaction on bus efficiency customers (PO Efficiency Study Yogyakarta-Cilacap Department)" the result is that customer value has a positive and significant effect on customer satisfaction. Another study on customer value entitled The effect of price, service quality and customer value on customer satisfaction at restaurants in the city of Purwokerto conducted by Wibowo (2013)[9], the result is that customer value has a positive and significant influence on customer satisfaction, while similar was done by Ikasari et al. (2013)[10] entitled The Influence of Customer Value and Service Quality on Customer Satisfaction (Case Study of Kaligung Mas Passenger Train at Poncol Station Semarang). The result states that the Customer Value Variable has a positive influence on the Customer Satisfaction variable so that the hypothesis is accepted. These results prove that, satisfied respondents are caused by high Customer Value. Therefore, the higher (better) Customer Value generated, it will strengthen Customer Satisfaction with customers, and vice versa.

3 Method

3.1 Types and research design

This research is a descriptive study by testing the validity and reliability of the questionnaire on the facilities variable, customer value and passenger satisfaction of the Jakarta Mass Rapid Transit (MRT) Train. The research is quantitative, where the interpretation of research results is based on statistical processing using the PLS3.0 software application.

3.2 Research time and location

The research location was determined purposively. The research was conducted on passengers of the Jakarta Mass Rapid Train (MRT) Train. In July 2020.

3.3 Samples

The sampling technique used is the Accidental Sampling technique. According to Sugiyono (2008: 92) states that Accidental Sampling is a sampling technique based on chance, that is, anyone who happens to meet the researcher can be used as a sample, if it is considered that the person who happened to be met is suitable as a source of data. These respondents are passengers of the Jakarta Mass Rapid Transit (MRT) Train and are willing to be respondents. The sample in this study were 100 passengers of the Jakarta Mass Rapid Train (MRT) Train.

3.4 Research variables & indicators

Measurement of research data includes research variables, namely Customer Value, Facilities, and Passenger Satisfaction. The entire questionnaire on each variable consists of a
score of 5 = Strongly Agree, Score 4 = Agree, Score 3 = Agree, Score 2 = Disagree, Score 1 = Strongly Disagree. While the research indicators are as follows:

3.4.1 Facilities (X1) are all things that can facilitate and facilitate the implementation of all business. The indicators of the facilities are:
- Availability of parking space for 2 or 4 wheeled vehicles (F1)
- Availability of seats in the passenger waiting room (F2)
- Availability of free toilets (F3)
- Availability of prayer rooms or places of worship (F4)
- Availability of supporting facilities such as free cellphone chargers, stairs going up / down for passengers (F5)

3.4.2 Customer Value (X3) according to Monroe in Ikasari (2013)[10] suggests that Customer Value is a trade off between customer perceptions of the quality or benefits of a product and sacrifices made through the price paid. So that the indicators of ease of transaction are:
- Has added value (N1)
- Cost-benefit (N2) compatibility
- Ease of obtaining services (N3)
- Emotional Value (N4)

3.4.3 The dependent variable (Y) or the dependent variable in this study is passenger satisfaction. Consumer satisfaction is the level of consumer feelings after comparing what he received with what was expected. The intended consumers are train passengers. Indicators of passenger satisfaction are:
- Satisfaction with train timeliness (K1)
- Satisfaction with the completeness of the facilities (K2)
- Satisfaction with price suitability (K3)
- Satisfaction with train departure schedules (K4)
- Satisfaction with the function of the facility (K5)

3.5 Sources, data collection and processing methods

This study uses primary data, namely the measurement and collection of data directly by the researcher using a questionnaire. The questionnaire was filled in by filling it out directly by the research subject.

3.6 Data analysis

Data analysis using the PLS 3.0 application with the following Table 1:
**Table 1.** Measurement standards for validity & reliability test

<table>
<thead>
<tr>
<th>Validity Test</th>
<th>Parameter</th>
<th>Rule of Thumbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Convergent</td>
<td>Outer Loading</td>
<td>&gt; 0.7</td>
</tr>
<tr>
<td></td>
<td>Average Variance Extracted (AVE)</td>
<td>&gt; 0.5</td>
</tr>
<tr>
<td>Discriminant</td>
<td>Akar AVE dan Korelasi Variabel Laten</td>
<td>The value of AVE&gt; R2 is the highest than endogenous variables</td>
</tr>
<tr>
<td></td>
<td>Cross Loading</td>
<td>&gt; 0.7 into variables</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reliability Test</th>
<th>Parameter</th>
<th>Rule of Thumbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cronbach's Alpha</td>
<td></td>
<td>&gt; 0.6</td>
</tr>
<tr>
<td>Composite Reliability</td>
<td></td>
<td>0.7</td>
</tr>
</tbody>
</table>

T test (partial test), which is to test whether the independent variable individually affects the dependent variable.
Accept Ho if $t_{count} < t_{table}$ ($\alpha = 0.05$)
Accept Ha if $t_{count} > t_{table}$ ($\alpha = 0.05$)

4 Results and Discussion

4.1 Results

4.1.1 Validity & reliability test

Based on the analysis using PLs 3.0 software, the results of validity and reliability are as follows Figure 1:

![PLS SEM model 1 facility, customer value and passenger satisfaction variables Jakarta MRT](image)

Fig. 1. PLS SEM model 1 facility, customer value and passenger satisfaction variables Jakarta MRT
4.1.1.1 Validity test (convergent analysis)

4.1.1.1.1 Outer loading

From Figure 1, the outer loading results are obtained as follows Table 2:

Table 2. Outer loading results

<table>
<thead>
<tr>
<th></th>
<th>F1</th>
<th>Kepuasan Penumpang</th>
<th>Nilai Pelanggan</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1</td>
<td>0.605</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F2</td>
<td>0.829</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F3</td>
<td>0.839</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F4</td>
<td>0.870</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F5</td>
<td>0.855</td>
<td></td>
<td></td>
</tr>
<tr>
<td>K1</td>
<td>0.786</td>
<td></td>
<td></td>
</tr>
<tr>
<td>K2</td>
<td>0.818</td>
<td></td>
<td></td>
</tr>
<tr>
<td>K3</td>
<td>0.812</td>
<td></td>
<td></td>
</tr>
<tr>
<td>K4</td>
<td>0.887</td>
<td></td>
<td></td>
</tr>
<tr>
<td>K5</td>
<td>0.914</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N1</td>
<td>0.671</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N2</td>
<td>0.997</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N3</td>
<td>0.994</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N4</td>
<td>0.855</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

According to the measurement standards in Table 1, outer loading must be worth more than 0.7, from the results of Table 2, it is found that only the F1 Indicator / Instrument is 0.605 or below 0.7 so that this indicator / instrument must be removed / removed to get valid results. So that the latest results will be obtained as shown in Figure 2 as follows:

Fig. 2. PLS SEM model 2 facility, customer value and passenger satisfaction variables
4.1.1.2 Average variance extracted (AVE)

Table 3. Result of average variance extracted

<table>
<thead>
<tr>
<th>Facility</th>
<th>Average Variance Extracted (AVE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fasilitas</td>
<td>0.739</td>
</tr>
<tr>
<td>Kepuasan Penumpang</td>
<td>0.720</td>
</tr>
<tr>
<td>Nilai Pelanggan</td>
<td>0.760</td>
</tr>
</tbody>
</table>

According to the standard measurement in Table 1, the Average Variance Extracted (AVE) must be worth more than 0.5, from the results of Table 3 it is found that the facility variables, customer value and passenger satisfaction are all above 0.5 so the results can be said to be valid.

4.1.1.2 Validity test (discriminant analysis)

4.1.1.2.1 AVE roots and latent variable correlation

Table 4. Result of R square

<table>
<thead>
<tr>
<th>Kepuasan Penumpang</th>
<th>R Square</th>
<th>R Square Adj...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mencapai Nilai</td>
<td>0.635</td>
<td>0.628</td>
</tr>
</tbody>
</table>

According to the standard measurement in Table 1, the Average Variance Extracted (AVE) result (Table 3) must be greater than the R Square result (Table 4). The results of the analysis obtained that all variables (facilities, customer value, passenger satisfaction) produce an Average Variance Extracted (AVE) with a value greater than the R Square, which is 0.635, so the results can be said to be valid.

4.1.1.2.2 Cross loading

Table 5. Result of Cross Loading
According to the standard measurement in Table 1, the Cross Loading results from all the results of each variable (facilities, customer value, passenger satisfaction) must be a value above or more than 0.7. From the result of the Cross Loading analysis (Table 5), all variables have a value above 0.7 so that the results can be said to be valid.

### 4.1.1.3 Reliability test (Cronbach's alpha analysis)

<table>
<thead>
<tr>
<th>Cronbach's Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fasilitas</td>
</tr>
<tr>
<td>Kepuasan Penumpang</td>
</tr>
<tr>
<td>Nilai Pelanggan</td>
</tr>
</tbody>
</table>

According to the standard measurement in Table 1, the Cronbach's Alpha results from the results of each variable (facilities, customer value, passenger satisfaction) must be a value above or more than 0.6. From the results of the analysis of Cronbach's Alpha (Table 6), all variables have a value above 0.6, so the results can be said to be reliable.

### 4.1.1.4 Reliability test (composite reliability analysis)

<table>
<thead>
<tr>
<th>Composite Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fasilitas</td>
</tr>
<tr>
<td>Kepuasan Penumpang</td>
</tr>
<tr>
<td>Nilai Pelanggan</td>
</tr>
</tbody>
</table>

According to the standard measurement in Table 1, the Composite Reliability results from the results of each variable (facilities, customer value, passenger satisfaction) must be a value above or more than 0.6. From the results of the Composite Reliability analysis (Table 7), all variables have a value above 0.7, so the results can be said to be reliable.

### 4.1.2 The t test

<table>
<thead>
<tr>
<th>Table 8. Results of the t test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fasilitas (\rightarrow) Kepuasan Penumpang</td>
</tr>
<tr>
<td>Nilai Pelanggan (\rightarrow) Kepuasan Penumpang</td>
</tr>
</tbody>
</table>

From Table 8, it can be seen that:
- The effect of the facilities variable on passenger satisfaction \( t \) count 5.616 > \( t \) table = 1.664, Ho is rejected, Ha is accepted so that the transaction ease variable has a positive effect on passenger satisfaction.
The influence of customer value variables on passenger satisfaction. \( t \) count 5.318, \( t \) table = 1.664, \( H_0 \) is rejected, \( H_a \) is accepted so that the Customer Value variable has a positive effect on passenger satisfaction.

### 4.2 Discussion

From the results of data analysis, the results of validity and reliability tests are good for each variable indicator, namely:

#### 4.2.1 Validity & reliability test

From the validity and reliability test on the variable indicator of customer value, the variable of facilities and the variable of passenger satisfaction, the results are valid & reliable.

#### 4.2.2 T test

From the t test analysis, it is found that the customer value variable has a positive effect on the passenger satisfaction variable of the MRT Jakarta Train. This is similar to the results of previous research conducted by Wibowo (2013) [9], the result is that customer value has a positive and significant effect on customer satisfaction, while the same research was conducted by Ikasari et al. [10]. The results state that the Customer Value variable has a positive influence on the variable Customer Satisfaction so that the hypothesis is accepted.

Likewise, the facilities variable has a positive effect on the train passenger satisfaction variable. The results of research on the effect of facilities on passenger satisfaction of the Jakarta Integrated Moda Raya (MRT) Train are similar to those conducted by Srijani [7], the results of the study state that facilities have an influence on customer satisfaction. Research with the same results was also carried out by Toriq [6]. The partial test results showed that facilities had a significant and positive effect on customer satisfaction who did refueling.

### 4 Conclusion

In this study, to test the validity & reliability of all variable indicators produced valid & reliable values. From the t test analysis, it is found that the variable customer value has a positive effect on the passenger satisfaction variable of the MRT Jakarta Train. Likewise, the facilities variable has a positive effect on the train passenger satisfaction variable. Even though the results have been good, it is recommended that the MRT Jakarta Train Management can provide even better passenger satisfaction, such as providing facilities for persons with disabilities and need to add seats to wait and also integration packages with other transportation modes.

### References


Learning via Website for Teachers and Students

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Tarbiyah and Teacher Training, Islamic Institut of Muhammadiyah Sinjai, Indonesia¹²³⁴

Abstract. Conventional education systems should be innovated by utilizing information technology. The use of books has been replaced by e-books, blogs and websites as learning resources and can be accessed anywhere and anytime. Moreover, learning during this pandemic requires teachers and students to use various online facilities such as websites. The purpose research is to provide training in the manufacture and use of web-based learning media and to describe the effectiveness of web-based learning media for teachers and students. This research uses research action research. In the process of the research action cycle, each cycle consists of four stages, namely problem diagnosis, action planning, action implementation, and action evaluation. The results of the n-gain analysis obtained the value of \( g = 0.55 \) by teacher and \( g = 0.57 \) by students. Based on the table of the n-gain criteria, the value is in the Medium category. The conclusion is that there is an increase in learning achievement after the use of web-based learning media in the learning process. Based on the research results, it was found that the Learning Via Website for Teachers and Students was very effective in use.

Keywords: Learning, websites, teachers, students

1 Introduction

Learning in the current Pandemic era encourages all forms of face-to-face learning to become non-face-to-face or commonly known as online learning. Face-to-face learning certainly requires learning facilities that require internet access. Internet-based learning has replaced the use of books as printed media with the existence of e-books, blogs or websites (web) as learning resources consisting of various writings that can be accessed anywhere and anytime. This of course can support a learning that can take place anywhere and anytime without being hindered by time and place. In addition, the use of internet technology for students can be used as a medium for discussion between teachers and students without having to be constrained by distance so that effective learning can be created in a non-formal atmosphere.

Along with the development of the internet today, there have been many sites that are not relevant to learning. The existence of various sites that are illegal, raise negative issues and can plunge students into negative things. Therefore, the role of teachers as educators is very important in guiding and directing students to select and sort information that is useful for learning. To avoid wasting the time used in accessing information that is believed to be irrelevant in learning, teachers need to prepare web-based learning media that have been packaged in such a way that learning can take place effectively and efficiently with the provided web address. Website or site is a collection of pages of information on the internet about a particular subject published by a person or organization and usually consists of fanfare, video and sound [1]. The actual website on the internet is written as www (world wide web) but...
sometimes most people abbreviate the website or www to just web. Web-based learning is a teaching and learning process that is carried out by utilizing the internet network, so it is often referred to as e-learning. Web-based learning is learning that utilizes the attributes and resources of the World Wide Web (Web) to create a conducive learning environment. With the existence of a web that can be used by all groups, especially students and educators, it can facilitate learning anywhere and anytime even though it is a long distance. Learning using the web, students and teachers, view study schedules, send assignments, view grades, consult, and even conduct discussions.

The development of learning designs for the web is designed in such a way that the online learning process can run effectively. There are three main elements that must be present in web-based learning design, namely learning tasks, learning resources, and learning supports. Learning tasks include activities, problems, and interactions to engage students. Learning resources contain content, information and resources that can be accessed by students. Learning supports related to learning instructions, motivation, feedback, and easy access for students.

Responding to the importance of using web-based learning media, teachers of course must have knowledge about the use of web-based learning. However, the reality that occurs in the field is still minimal knowledge of the use of web-based learning media. The awareness of the importance of using instructional media is still neglected by teachers for various reasons. Limitations in learning how to use learning media, availability of preparing appropriate learning media, and limited funds are the basic reasons for teachers to take advantage of this web-based learning facility. Moreover, if the school is far from the city center, teachers still lack knowledge and use of learning media, especially web-based.

Based on the results of observations by researchers at the MTs Muhammadiyah school, Sinjai Regency, which is a school that is familiar to researchers, it seems that teachers still lack knowledge of the creation and use of the web as a learning medium. Even of the 16 teachers who actively teach at the school, only two are able to use the web. Even worse, there are some teachers who don't even know about using the internet as a learning medium. The internet is understood to be limited to a communication medium such as WhatsApp and Facebook. Even though the teachers are aware of their shortcomings, the limited time for self-taught learning about the use of web-based learning is their obstacle. Therefore, the researcher views the need to conduct a learning training via website for teachers and students at MTs Muhammadiyah Sinjai Regency. Learning via the website by researchers includes training on the creation and use of learning media via the website which is divided into training for teachers and students.

The results of previous research conducted by Mahendra Adhi Nugroho et al, showed that training in making web blogs was very useful for them as educators. They feel the need to develop web-blog-based learning media as a medium for conveying learning messages. This media can help educators integrate online and face-to-face (conventional) learning so that it can complement each other. It also provides new learning experiences for students so that the teaching and learning process can be more varied and innovative [1]. In addition, the results of research by Muhammad Taufik, et al. Show that community service activities in the form of Web-based Learning Media Making Training for Science Teachers are very useful for participants because they can add insight into knowledge and skills in making Web-based learning media [2].

Hesti Lukitaningrum, who researched a web-based learning media product with the address http://www.databaseforsmk.com. Products are assessed from aspects of software, aspects of learning media and aspects of visual communication. The learning media databaseforsmk.com contains database material with sub-material about knowing MySQL and installing MySQL. The application offers multimedia facilities with a combination of text, images and videos.
Based on the tests carried out, the development of learning media on database material in Vocational High School class XI as a whole in the aspects of software engineering, learning media and visual communication can be categorized as feasible, so that this learning media can be used as a learning medium to assist the learning process [3]. Hamonangan Tambunan added with the results of the research showing that website-based learning in the electrical machine management course is very efficient in contributing to the learning process. Learning can be accessed openly with the availability of material search facilities, discussion forum facilities, and active contributions (comments) and fulfilling the evaluation process so that it can be seen the level of student mastery of learning materials [4]. He also added that I Gede Mahendra Darmawiguna and Made Windu Antara Kesiman with the results of the research showed that students gave very positive and balanced responses to the learning media developed. Based on the calculation of the results of the responses based on the statements, it is found that the average student response falls into the positive category [4].

Based on the description above, the researcher intends to provide a training for the making and utilization of learning via WEB for teachers and students at MTs Muhammadiyah, Sinjai Regency. The selection of the research location chosen by the researchers was based on the lack of knowledge of teachers and students in the school regarding the creation and use of web-based learning.

2 Method

This research was conducted at MTs Muhammadiyah in Sinjai Regency which is located at JL. Sultan Hasanuddin No. 20, Sinjai Regency, South Sulawesi. This research uses action research research. In Indonesian, action research is translated as "action research", but there is also a mention of "action research". In the process of the action research cycle, each cycle consists of four stages, namely problem diagnosis (diagnosing), action planning (action planning), action taking (action taking), and evaluating action (evaluating action) [6]. The picture of the action research design can be seen in Figure 1 below.

![Fig. 1. Action research design](image)
Diagnosing the problem (diagnosing), at the problem diagnosis stage the researcher analyzes the initial abilities of teachers and students by giving a pretest. This is done to find out the extent to which teachers and students are capable of related websites.

Action planning, at the action planning stage the researcher designed a schedule for the implementation of activities, designed training materials, and designed a product in the form of a website usage guidebook.

Taking action, at this stage the researcher provides material on the use of websites, training in making emails and websites.

Evaluating action, at this stage the researcher evaluates the final ability of the teacher and students by giving posttests to both of them.

Sources of data in this study were obtained from the ability instruments given to teachers and students before (pretest) and after (posttest) research at MTs Muhammadiyah Sinjai Regency. The instrument used was a questionnaire instrument using a Likert scale. The techniques and methods of extracting data in this study are the methods used in collecting and managing research data which consists of observation, questionnaire, and documentation.

The data obtained in this study were analyzed based on the measured aspects. The data analysis technique is proposed based on the stages in this research. Needs analysis stage, the data analysis technique used in the needs analysis stage is descriptive qualitative analysis, which is to provide conclusions from the interview data. Development stage, the data analysis technique used at the development stage of the guide book and website uses two techniques, namely find the average and finding the average total validator’s assessment. Validity is determined by matching the average total validity of all assessment items.

The criteria used to decide that the media used has an adequate degree of validity are: (1) total average value ($X$) for all minimal aspects in the sufficiently valid category, and (2) score $\bar{A}_i$ for every minimum aspect in the valid category [5].

2.1. Experimental stage

To find out the effectiveness of learning via the website before and after training, it can be calculated using the N-gain equation with formula as follow and as described in Table 2.

$$g = \frac{S_{post} - S_{pre}}{S_{maks} - S_{pre}}$$

Table 2. Criteria for N-Gain Level

<table>
<thead>
<tr>
<th>Average</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>$g &gt; 0.7$</td>
<td>High</td>
</tr>
<tr>
<td>$0.3 \leq g \leq 0.7$</td>
<td>Medium</td>
</tr>
<tr>
<td>$0 \leq g &lt; 0.3$</td>
<td>Low</td>
</tr>
<tr>
<td>$g \leq 0$</td>
<td>Failed</td>
</tr>
</tbody>
</table>
3 Results and Discussion

3.1 Presenting the results

The presentation of the research results below is divided into three presentations, namely the creation, use and assessment of the effectiveness of learning via the website for teachers and students.

3.1.1 Creating learning media via the website

3.1.1.1 Problem diagnosis (diagnosing)

Based on the results of discussions with teachers and students at MTs Muhammadiyah Sinjai, Sinjai Regency, it provides information that website-based learning has never been done by teachers at the school. Besides that, students have not been guided by the teacher in selecting and sorting websites that can be used as teaching materials that can support student academic achievement. In fact, most students at MTs Muhammadiyah Sinjai already have social media that can support their academic achievements.

In addition, based on the results of the analysis of the pretest instrument, the ability to manage the teachers' website with the ability criteria used as described in Table 3.

<table>
<thead>
<tr>
<th>Rating Score</th>
<th>Average Score</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>4.5 ≤ X ≤ 5</td>
<td>Very Expert</td>
</tr>
<tr>
<td>4</td>
<td>3.5 ≤ X &lt; 4.5</td>
<td>Expert</td>
</tr>
<tr>
<td>3</td>
<td>2.5 ≤ X &lt; 3.5</td>
<td>Quite an expert</td>
</tr>
<tr>
<td>2</td>
<td>1.5 ≤ X &lt; 2.5</td>
<td>Less Expert</td>
</tr>
<tr>
<td>1</td>
<td>X &lt; 1.5</td>
<td>No expert</td>
</tr>
</tbody>
</table>

On the results of the research instrument sheet, the following pretest results were obtained used as described in Table 4.

<table>
<thead>
<tr>
<th>Manager</th>
<th>Management Capability</th>
<th>Average value (X)</th>
<th>information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher</td>
<td>Email</td>
<td>3,16</td>
<td>Very expert</td>
</tr>
<tr>
<td></td>
<td>Website</td>
<td>1,5</td>
<td>Less expert</td>
</tr>
<tr>
<td>Student</td>
<td>Email</td>
<td>3,16</td>
<td>Very expert</td>
</tr>
<tr>
<td></td>
<td>Website</td>
<td>1,5</td>
<td>Less expert</td>
</tr>
</tbody>
</table>

So it can be concluded that website-based learning is still very minimal known by teachers and students at school of MTs Muhammadiyah Sinjai.

3.1.1.2 Planning action

The stages in action planning are as follows:
- Designing a training schedule, at the planning stage the schedule is carried out with the researcher by discussing matching the schedule of the researcher with the principal and teachers at the school.
- Installation of school wifi, at this stage the researcher installs wifi in schools for training needs.
- Designing training materials, at the stage of planning the material the researcher then reviews the teaching material that is being and will be taught by the teacher to students in each subject matter in each batch. At this stage the researcher informs each subject teacher to prepare learning materials which will then be uploaded on the classroom learning website. So that every teacher from grade 1 to 3 prepares their teaching materials.
- Designing a product (Website Usage Guide Module), at the stage of designing the module the researcher prepares a teaching material module which contains the stages of making and using the website as a teaching medium.

3.1.1.3 Taking action

At this stage of the implementation of this action the researcher carried out training for teachers and students at MTs Muhammadiyah Sinjai. The training stages are as follows:
- Opening of the training, at this stage the researcher and the principal open a training website with the teacher and student representatives. The principal then officially opened the training.
- Teacher and student training activities, at this stage the researcher trains teachers to create websites by first dividing the jobs of each admin who manages the website that has been made.

3.1.1.4 Evaluating action

At this stage, an action evaluation will be carried out by providing a posttest to the participants to find out the progress of the training before and after the training. The post-test questionnaire has not been distributed to participants since the training is still ongoing.

3.1.2 Using learning media via website

The stages of training for web-based learning media are as follows:
- Making an e-mail for website registration, at this stage each admin creates an e-mail for website registration.
- Purchasing Hosting and Domains, at this stage each admin buys a domain and hosting on the Niagahoster page by first logging in using the e-mail that has been created.
- Setting up the website, at this stage each admin sets up the website that has been created by adding menus and submenus according to the needs of the website content. Adding menus and submenus can be done by clicking View → add menu item → add menu → save menu.
- Managing the website by applying teaching materials, at this stage each admin uploads / posts the files needed for website-based learning.
3.1.3 The effectiveness of learning via the website in terms of teacher and student competencies

In the analysis stage, the effectiveness of web-based learning in terms of the competence of teachers and students at MTs Muhammadiyah Sinjai was carried out with 2 stages of analysis. The stage of the analysis consists of analyzing the effectiveness of web-based learning in terms of the competence of research teachers and secondly, analyzing the effectiveness of website-based learning in terms of student competencies. Analysis of the effectiveness of web-based learning is carried out by providing a questionnaire instrument to the training participants before (pretest) and after (postest) training. The questionnaire instrument grid is described as in Table 5.

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Indicator</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>e-mail</td>
<td>E-mail creation</td>
<td>How capable are you in composing e-mail?</td>
</tr>
<tr>
<td></td>
<td>open e-mail</td>
<td>How are you able to open e-mails?</td>
</tr>
<tr>
<td></td>
<td>Send e-mail</td>
<td>What is your ability to send e-mail?</td>
</tr>
<tr>
<td></td>
<td>replay e-mail</td>
<td>How are you able to reply to (replay) incoming e-mail?</td>
</tr>
<tr>
<td></td>
<td>forward e-mail</td>
<td>What is your ability to forward e-mail?</td>
</tr>
<tr>
<td>website</td>
<td>Browsing</td>
<td>How is your ability to browse the website?</td>
</tr>
<tr>
<td></td>
<td>Register</td>
<td>How is your ability to create a website?</td>
</tr>
<tr>
<td></td>
<td>Domain</td>
<td>How are you able to create a website Domain?</td>
</tr>
<tr>
<td></td>
<td>Hosting</td>
<td>How are you capable of creating website hosting?</td>
</tr>
<tr>
<td></td>
<td>SSL</td>
<td>How is your ability to create a website SSL?</td>
</tr>
<tr>
<td></td>
<td>Post Writing</td>
<td>How is your ability to post articles on the website?</td>
</tr>
<tr>
<td></td>
<td>Post pictures</td>
<td>How is your ability to post images on the website?</td>
</tr>
<tr>
<td></td>
<td>Post videos</td>
<td>How is your ability to post videos on the website?</td>
</tr>
<tr>
<td></td>
<td>Post editing</td>
<td>How are your skills in website post editing?</td>
</tr>
<tr>
<td></td>
<td>Create page</td>
<td>How is your ability to create website pages?</td>
</tr>
<tr>
<td></td>
<td>Install plugins</td>
<td>What is your ability to install website plugins?</td>
</tr>
</tbody>
</table>

The results of the analysis of the effectiveness of website-based learning in terms of teacher and student competencies can be calculated using the following formula.

\[ g = \frac{S_{post} - S_{pre}}{S_{maks} - S_{pre}} \]  

\[ S_{pre} = \text{score on the pretest} \]
\[ S_{post} = \text{score on the postest} \]
\[ S_{maks} = \text{the maximum possible score} \]
\[ g = \text{gain} \]
\[ g = \frac{884 - 498}{1200 - 498} \]
\[ g = \frac{386}{702} \]
\[ g = 0.55 \]

Based on the n-gain criteria table, the pretest-posttest results are in the Medium category. So it can be concluded that there has been an increase after the use of web-based learning media
in the learning process carried out by the teacher. The analysis of the effectiveness of website-based learning in terms of student competencies can be seen from the following calculations.

\[
g = \frac{575-270}{800-270} = 0.57
\]

Based on the n-gain criteria table, the pretest-posttest results are in the Medium category. So it can be concluded that there has been an increase after the use of web-based learning media in the learning process carried out by students.

3.2 Discussion

Learning via the website which is carried out with a series of training activities for teachers and students at MTs Muhammadiyah, Sinjai Regency consists of two main activities, namely creating a website and using the website. This activity begins with the delivery of the activity plan, then continues with the delivery of training and practical materials.

The training activity begins with the delivery of material. After the delivery of the material, the training activity ended with the distribution of the participant's Instrument Sheet for the implementation of the training that had been followed. The purpose of distributing this instrument is to obtain an overview of the participants' opinions on the training, both material and potential for application in learning.

Based on the activity participant response questionnaire, information on the material presented was interesting, because website-based learning media were new to teachers; service activities like this should be used as routine activities with different material and a longer duration; This activity provides benefits and inspires participants to develop competencies in making innovative learning media.

The implementation of this training is supported by various factors. Spread invitations to the implementation of training through the executive committee, so as to facilitate the delivery of information on the training implementation agenda; Participants have a high interest in the material presented which can be seen in the enthusiasm of the participants during the training activities; the training venue is conditioned in each room of the school building and activates whatsapp discussions for coordination of unknown matters. In addition, the participants already know the location of the training, making it easier for participants to go to the location. On the other hand, the implementation of this training activity also faced several obstacles, namely dense material with a limited time allocation and the low variation in IT capabilities of the participants.

The research results obtained that learning through the website for teachers and students is very effective to use, besides that learning websites can support the competence of teachers and students at MTs Muhammadiyah Sinjai Regency. The results obtained are in line with previous research conducted by Erwin Januarisman and Anik Ghufron with a study of the development of web-based learning media, which resulted in an increase in student achievement through learning via the website [7]. Also added to the results of Fariza Rohdiani and Lusia Rakhmawati concluded that web-based learning can also be used as a supporting tool in the learning process with a percentage of validity up to 83% [8]. In addition, Kiki Aryaniningrum's research found that web-based learning (e-learning) had an effect on student learning outcomes by 36% [9].
4 Conclusion

Learning via the website for teachers and students is very effective to use, especially during the current pandemic. Website-based learning activities carried out with training conducted by researchers also greatly support the competence of teachers and students at MTs Muhammadiyah, Sinjai Regency.

Acknowledgements

During the writing of this article the author is very grateful to the Research of the Ministry of Religion of the Republic of Indonesia as a research fund contributor, to the Teachers and Staff of MTs Muhammadiyah Sinjai, and students who were directly or indirectly involved during the research. Thank you to the Muhammadiyah Sinjai Islamic Institute as a forum for writers to work.

References

Effectiveness of QR-Code in Learning during Covid-19 Pandemic

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Abstract. To date, learning process in universities has turned out to be much preoccupied to listen and write. Now is the time for technology innovation to be applied in learning as students on the average have a smartphone. Lecturers as tutors and books as learning resources are replaced with QR-Codes that can be accessed anytime and anywhere. The pandemic circumstance particularly supports learning innovation with QR-Code. The purpose of this research is to describe the effectiveness of using QR Code as media to optimize learning process. This research is pre-experiment with one-group pretest-posttest design. It was conducted by giving treatment to one particular class then comparing the circumstance before and after the treatment. The n-gain obtained had a value of \( g = 0.63 \) which is categorized as moderate, learning motivation has positive result, and the response of students show positive result. Hence, it implies that there is an increase in students' learning achievement after the QR code has been used in learning process. This consequently leads to a conclusion that using QR Code is effective to optimize the learning process.

Keywords: Effectiveness, QR-code, media, learning process, covid-19

1 Introduction

The utilization of ICT in education realm has increased quite rapidly. This concept leads to the improvement of learning quality. Era of industrial revolution 4.0 demands efficiency, digitalization, and automation. It provides a golden opportunity for those who are able to apply information and communication technology in various fields, especially education. In the field of education, the function of ICT as a supplement began to shift to a necessity and compulsion [1]. Especially in the current covid-19 pandemic, government has issued regulations of dismissing all face-to-face educational activities, including universities, and taking alternative of online distance learning [2]. The problem among lecturers and students is the implication of a paradigm shift in the education system. The demand to increase professionalism in terms of knowledge mastery has become a homework for all education activists.

Nowadays, there are various means to support online learning such as online courses, computer-aided instruction, etc. It is taken into account that students in millennial era on the average have a smartphone so that the ICT operating skill is no longer a new and difficult thing for them. However, some of them fail to bring about the expected results. Surely, educators need to do their best to utilize ICT in optimizing the learning process, especially in mathematics instruction. According to [3], the selection of appropriate electronic media plays an important
role to create an effective teaching learning process. QR Code is one of the ICT-based learning media.

The employment of Quick Response Code (QR Code) in learning is expected to empower students to play an active role in the learning process. The QR Code is a two-dimensional image that can present data [4]. QR Code can send messages very fast, accessible and has high capacity and quality [5]. QR Code is free to generate and access data quickly and can be read with smartphone. Study of QR Code in education can be placed in the context of mobile learning. The QR Code consists of a black module on a white background that contains information such as text, URL links, and other data that can direct users to sources for more information about a specific place on a subject [6]. The QR Code enables the implementation of innovative systems that is based on paradigm of just-in-time learning and collaborative learning. Furthermore, the QR Code makes it possible to connect digital resources to printed text. It unlocks the opportunity to enrich paper-based subject matter. Enriched learning materials can motivate students with different learning needs that fundamentally leads to an effective learning process [8].

QR Code applications in education [9] include: (1) classroom management: providing contact information from lecturers to students, creating exam schedules, marking the identity of equipment in the classroom, (2) learning activities: creating books containing QR Codes, linking to educational multimedia sources on the internet (url) or Youtube, (3) assessments: creating quizzes using QR codes, and (4) finding literatures on the internet. The implementation of QR Code in learning is showed in Figure 1.

Application of ICT, especially the QR Code, has been largely introduced to the realm of education and mostly exerts a positive influence in learning process both in school and in higher education. Research conducted by [11] shows that students' achievement through learning with QR codes is better than that through conventional learning. [12] also revealed that the application of QR codes is expected to create more efficient and effective mobile-based attendance tracking. In addition, [13] revealed that learning achievement of students who use of QR Codes is much better than those that do not. In the context of mathematics learning, however, only a few educational institutions have utilized QR Code technology to date, the number keeps increasing nevertheless, such as Hangzhou Dianzi University, China [14], University of Wollongong, Australia [4] and Institut Pertanian Bogor (IPB) University, Indonesia. However, under the current circumstance of covid-19 pandemic, there is a need for learning innovation. QR Code technology is one of the alternatives to actualize and optimize learning process in mathematics teacher education program to be more effective and efficient.
2 Method

This research is pre-experiment with one-group pretest-posttest design. It was conducted by giving treatment to one particular class then comparing the circumstances before and after the treatment. The samples consisted of 24 undergraduate students majoring in mathematics teacher education program. The instruments used were achievement test and a questionnaire designed to evaluate the effectiveness of QR Codes in mathematics learning process. The achievement test was used to assess comprehension level of students, while questionnaire was used to assess students' learning motivation and response. The data was descriptively analyzed to determine the criteria of effectiveness based on indicators. Effectiveness criteria for each indicator are: (1) there should be improvement in test score after applying the QR Code, n-gain should at least in the moderate category, (2) learning motivation should belong to, at least, good category and (3) student response should, at least, be in the positive category.

3 Results and Discussion

3.1 Learning achievement

The result of the tests given to students before and after learning process using the QR Code is shown in Table 1.

<table>
<thead>
<tr>
<th>Interval</th>
<th>Category</th>
<th>Pretest</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>F (%)</td>
<td>F (%)</td>
</tr>
<tr>
<td>91-100</td>
<td>Very Good</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>75-90</td>
<td>Good</td>
<td>1</td>
<td>18</td>
</tr>
<tr>
<td>60-74</td>
<td>Moderate</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>40-59</td>
<td>Poor</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>0-39</td>
<td>Very Poor</td>
<td>16</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>24</td>
<td>24</td>
</tr>
</tbody>
</table>

Based on Table 1 above, there were 16 or 66.7% students who had a very low initial knowledge before the use of QR Code media. Meanwhile, after the QR Code media applied, there were 18 or 75.0% students who had a good achievement with the mean score of 83.06. It means that students gained good knowledge after learning with the QR Code.

The classification of the improvement of students’ learning achievement is presented in Table 2.

Table 2. Categorization of n-gain with QR Code media

<table>
<thead>
<tr>
<th>Coefficient of n-gain</th>
<th>N</th>
<th>(%)</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>g ≤ 0,3</td>
<td>0</td>
<td>0.00</td>
<td>Poor</td>
</tr>
<tr>
<td>0,3 ≤ g &lt; 0,7</td>
<td>22</td>
<td>91.7</td>
<td>Moderate</td>
</tr>
<tr>
<td>g ≥ 0,7</td>
<td>2</td>
<td>8.3</td>
<td>Good</td>
</tr>
</tbody>
</table>
Based on table 2, it appears that the increase in learning outcomes after using QR Code media is in the moderate category or 91.7% with an average increase (n-gain) of 0.63.

### 3.2 Students' learning motivation

The results of the distribution of questionnaires about students' learning motivation after the use of QR Code learning media are shown in Table 3.

<table>
<thead>
<tr>
<th>Interval</th>
<th>Category</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>81-100</td>
<td>Very Good</td>
<td>6</td>
<td>25.0</td>
</tr>
<tr>
<td>61-80</td>
<td>Good</td>
<td>15</td>
<td>62.5</td>
</tr>
<tr>
<td>41-60</td>
<td>Moderate</td>
<td>2</td>
<td>8.3</td>
</tr>
<tr>
<td>21-40</td>
<td>Poor</td>
<td>1</td>
<td>4.2</td>
</tr>
<tr>
<td>0-20</td>
<td>Very Poor</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>4</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 3 implies that after using QR Code media, there were 15 students or 62.5% who had a good learning motivation with mean score of 80.56 and an average increase (n-gain) of 0.58.

### 3.3 Students' response

The results of questionnaires about students' responses after using QR Code learning media are shown in Table 4.

<table>
<thead>
<tr>
<th>Interval</th>
<th>Category</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>48-63</td>
<td>Positive</td>
<td>20</td>
<td>83.3</td>
</tr>
<tr>
<td>32-47</td>
<td>Tend to be Positive</td>
<td>4</td>
<td>16.7</td>
</tr>
<tr>
<td>16-31</td>
<td>Tend to be Negative</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>0-15</td>
<td>Negative</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>24</td>
<td>100</td>
</tr>
</tbody>
</table>

Based on table 4 above, there were 20 or 83.3% students who had a positive response to the QR Code with the mean score of 3.57.

### 3.4 Effectiveness analysis

Based on the aforementioned analysis that has been outlined earlier, it appears that the use of QR Code media has met the criteria of effectiveness, namely learning achievement, learning motivation, and students' response. Achievement criteria of the effectiveness of QR Code media can be seen in Table 5.
Table 5. Achievement criteria of effectiveness

<table>
<thead>
<tr>
<th>Media</th>
<th>Indicator</th>
<th>Criteria</th>
<th>Score</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>QR Code</td>
<td>Learning Achievement</td>
<td>$\bar{x} &gt; 74.9$</td>
<td>83.06</td>
<td>Satisfied</td>
</tr>
<tr>
<td></td>
<td>Post-test mean score</td>
<td>$\bar{x} &gt; 0.29$</td>
<td>0.63</td>
<td>Satisfied</td>
</tr>
<tr>
<td></td>
<td>Gain mean score</td>
<td>$\bar{x} &gt; 0.29$</td>
<td>0.63</td>
<td>Satisfied</td>
</tr>
<tr>
<td>Students' Learning Motivation</td>
<td>Post-test mean score</td>
<td>$\bar{x} &gt; 74.9$</td>
<td>80.56</td>
<td>Satisfied</td>
</tr>
<tr>
<td></td>
<td>Gain mean score</td>
<td>$\bar{x} &gt; 0.29$</td>
<td>0.58</td>
<td>Satisfied</td>
</tr>
<tr>
<td></td>
<td>Students' response mean score</td>
<td>$\bar{x} &gt; 3.4$</td>
<td>3.57</td>
<td>Satisfied</td>
</tr>
</tbody>
</table>

3.5 Discussion

QR Code learning media can improve students' learning achievement. This is because the characteristics of the QR Code promote students' understanding. Analysis of achievement test showed improvement from the pre-test to post-test results. Students' achievement before applying QR Code media is only in the poor category, while after applied the students' achievement increases to be good. The increase is in the moderate category. This is because students become highly motivated in learning. The high motivation that students have is shown by the eagerness and earnestness to success. Students have a strong desire to successfully master the lesson and get high grades in their learning activities. These qualities are seen from high-motivated and achieved students, such as trying to complete the given task thoroughly, not delaying the given job, willing to seek help from lecturer or his friends if having difficulty in the learning process. This is in accordance with the results of the study of [15] that students' motivation in learning mathematics increases due to the utilization of QR Codes.

Moreover, students responded positively to the learning atmosphere, the way lecturers teach, activities in the learning process, teaching materials used, and the tests given. This is because the students feel the benefits of the learning. Such benefits are the progress felt after learning and it is easier to understand the lesson presented using QR Code media. In addition, the positive impact felt by students is also seen from the ability of students to answer the questions presented. Some written comments said they were happy with the learning process with QR Code media, and suggested that the learning should be done on different topics.

4 Conclusion

The application of QR Code can improve efficiency and effectiveness in the learning process. Teachers and lecturers as the agents of change can create fun, innovative, and meaningful learning, especially mathematics and other subjects in general. In addition, students can gain a real and enjoyable learning experience which is also adaptive to the current development.

Acknowledgements

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References

Microsoft Office 365 as an Alternative in Online Learning during the Covid-19 Pandemic

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Abstract. Covid-19 pandemic requires lecturers to do online learning, so an alternative is needed to support their learning. Microsoft Office 365 is an application that has many features to make the learning process easier. The purpose of this research is to describe the use of Microsoft Office 365 as an online learning alternative during the Covid-19 pandemic. This research is qualitative with a descriptive approach. The research subjects were students of the Islamic Institute of Muhammadiyah Sinjai, Mathematics Education Study Program. Data were collected by distributing questionnaires and conducting interviews. Lecturers use several Microsoft Office 365 features in learning, namely Teams, Forms, and One Drive. Teams are used to create virtual classes, share materials, develop assignments, quizzes, assessments, and virtual meetings. Form is used to generate attendance lists and questions. One Drive is used to store files and share links. As a conclusion, Office 365 can facilitate lecturers in the learning process because it has many features that can be used as an alternative for online learning during the Covid-19 pandemic.

Keywords: Microsoft office 365, online learning, covid-19 pandemic

1 Introduction

COVID-19 pandemic is a devastating disaster for the entire population of the earth [1]. Coronavirus itself is a large family of viruses that cause diseases with mild to severe symptoms [2]. COVID-19 has been a real test for higher education institutions worldwide in terms of their level of readiness, flexibility, and adaptability in responding to similar global crises [3]. COVID-19 outbreak has created educational disruptions [4]. Many schools in the world were closed to stop the spread of covid-19. Consequently, learning activities of at least 290.5 million students around the globe disrupted [5]. Not only schools but also all universities have been affected by COVID-19. To do all the learning process using the internet

Closing schools requires education to be carried out online because the government prohibits educational institutions from conducting direct learning to avoid direct contact [6][7]. Online learning has been used in various universities, both using fully online of blended learning [8]. However, because of the Covid-19 Pandemic, all learning must be conducted online. Online learning can bring students and lecturers together to doing all the learning process using the internet [9]. Online learning is an open distributed learning system that employs educational tools using the internet and network-based technology to promote learning and knowledge processing through meaningful actions and interactions [10].
Although there have been changes in the learning system, online learning has become part of several education systems in the world, however the levels and methods of using this technology aim to achieve quality and varied online learning. This depends on many related factors as well as all parties who are already involved in integrating technology into the education system [11].

Online learning also has the advantage of making students more independent in learning [12]. Online learning is more student-centered, that creates responsibility and autonomy in education [13]. In Indonesia itself, the government provides several applications that support students' learning activities. Educators can also meet students directly through applications that they can access via internet. However, some obstacles in online learning make students less interested. Besides, online learning can increase high interactivity, improve memory, provide a more learning experience by using text, audio, video, and animation to convey information, and also make it easier to obtain, update and download content, send emails to other students, post comments on discussion forums, use chat rooms, and conduct video conferences to communicate directly [10]. Once students can utilize online learning well, their learning outcomes will increase [14].

To get all the features in online learning, students are faced with new problems of having to use many applications which is difficult for them. For example, Google Classroom can only create classes, share material, and ask questions about material via forums. Zoom, Google Meet, and similar applications can only be used for video conferencing without creating a course. Therefore, in order to create classes and conduct video conferences, students and teachers must install several applications. This is quite difficult for lecturers and students, so we need learning alternatives to facilitate online learning. The application to be elaborated is Microsoft Office 365. This application has many features so that teachers and students only need to install this application without installing another application.

Microsoft Office 365 makes it easy for educators to collaborate on document learning and supports online learning processes and evaluations using an internet connection [15]. Office 365 is an online software created by Microsoft to meet users' needs in the office, corporate, and education fields. Especially in education, Microsoft provides Office 365 for free, and some of its features can be used as e-learning so that anyone can use Office 365 anywhere and whenever there are educators who are qualified and skilled to use Office 365 [16].

2 Method

This research is qualitative with a descriptive approach. The subjects were 37 students of 7th Semester in Mathematics Education Study Program and 1 lecturer of Islamic Institute of Muhammadiyah Sinjai. There are two data collection methods used in this study, questionnaire and interview methods. The questionnaire is given in the form of an online questionnaire with Microsoft form, and the interview is conducted online. To test the validity researchers employed data triangulation. The analysis was carried out in 4 stages, including 1) collection; 2) reduction; 3) displaying, and 4) conclusion.
3 Results and Discussion

3.1 Lecturers' perceptions in using Microsoft Office 365

Based on observations, a lecturer who teaches Mathematics at Islamic Institute of Muhammadiyah Sinjai has a Microsoft Office 365 account with iaimsinjai.ac.id domain. This campus organizational domain enables the lecturers to communicate and collaborate without boundaries. Besides, this application can facilitate distance learning during a pandemic because it has many features. The features often used in education are Teams, One Note, One Drive, Sway, PowerPoint, Excel and Word Online, Forms. Teams allow you to conduct virtual meetings as well as assign and grade student assignments. One note is used to create a virtual learning module. One drive is used to store and share learning material links. Sway to make presentations interactive and engaging. PowerPoint, Excel, and Word are like office 2019 uses, but these features allow us to complete tasks collaboratively because we can share links for editing. Lastly, Form is used to create attendance lists that can directly be embedded in Excel. Form can also be used to develop questions for daily assignments or final exams.

Based on the interview with one of the lecturers, the features can be integrated into each other. For example, making a presentation using the Sway feature can be combined with the Form. After the presentation is complete, students can go directly to the Form to complete tasks related to the presentation material. Besides, these features can be integrated with other applications such as YouTube, Kahoot, and Quizizz. This facilitates the process of online learning during the Covid-19 pandemic and is effectively used in learning, especially mathematics learning. Learning using the Microsoft office 365 is feasible to be applied in the learning process in the classroom [17].

3.2 Students' perceptions of the use of Microsoft Office 365

Based on the results of observations, all students of 7th semester Mathematics Education in Islamic Institute of Muhammadiyah Sinjai have a Microsoft Office 365 account with iaimsinjai.ac.id domain. Microsoft office 365 has many features that can be used in learning. Based on the results of interviews, the features that are often used in learning are Teams, Forms, One Note, One Drive, Sway, Word, Excel, and PowerPoint. Teams are used to attend virtual meetings, answer questions directly given by the lecturer, and check assignment scores from their lecturer. With the One-note feature, students can access the digital module anytime, anywhere. One drive can be used to store files/learning materials and assignments. Sway can be used to create interactive and engaging presentations. Word, Excel, and PowerPoint allow students to collaborate on tasks by simply sending a link to a group of friends.

According to one student, using Office 365 application can make learning easier than using another application because it is easier to access materials and assignments. Besides, this application is very easy because it can be accessed by Android anytime and anywhere. Microsoft Teams for Education application is very good to increase students' interest in learning [18].

3.3 Discussion

Lecturers and students perceive that Office 365 in online learning is effective to be employed during the Covid-19 pandemic. Microsoft Office 365 application has a quality that Microsoft Office 2019 does not, which is that it can be accessed online. Its features are always up to date. This application has 1TB of cloud storage so it can store data anytime and from
anywhere more simply without having to use a flash drive. This application can facilitate the teaching and learning process and can increase student motivation. This is reinforced by the results of research that the design of e-learning using office 365 and its application can increase students' interest, insight, and motivation to learn and contribute to the advancement of current knowledge [19]. This is in line with the research that motivation and self-efficacy affect mathematics achievement of Primary Teacher Education Program (PGSD and PGMI) students [20]. Therefore, a lecturer must be able to deliver lessons with engaging strategies and applications in order to increase students' motivation in learning during the pandemic. Based on observations and subject interviews, the Office 365 application has many interesting features that can be integrated into each other in learning. This application allows lecturers and students to have virtual meetings, communicate directly and be able to collaborate in completing assignments.

4 Conclusion

Microsoft Office 365 is an alternative in online learning during a pandemic because it has many features that can be integrated. The elements often used in learning at IAI Muhammadiyah Sinjai, especially the 7th semester Mathematics Education Study Program, are Teams, One Note, One Drive, Sway, Word, Excel, and online PowerPoint. All of these features make learning easy and can be accessed via Android limitless and paperless.

Acknowledgements

We would like to thank all those involved in this research. These included the leadership of the Islamic Institute of Muhammadiyah Sinjai who had funded this research, mathematics education lecturers, and students who were willing to become research subjects. Thank you very much for your help.

References

Inter-Personal Communication on the Work Discipline of Employees of Diskominfo Sinjai Regency

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Abstract. Talks within the organization can lead to contention. This is caused by a lack of understanding communicator of the character of the communicant. As a result, the work atmosphere becomes uncomfortable and affects employee discipline of work. Therefore, leaders need to have interpersonal communication skills to create a conducive organization to work with higher discipline. This study aims to determine leadership interpersonal communication's effect on improving employee discipline of work in the Information and Encoding Communication Office (DISKOMINFO), Sinjai Regency. This study is a survey research using a quantitative approach. The data collection method used a questionnaire and documentation, while the data analysis was quantitative analysis with descriptive statistics. Interpersonal communication is carried out by leaders who greatly influence creating employee work discipline in the Information and Encoding Communication Office (DISKOMINFO), Sinjai Regency.

Keywords: Leadership interpersonal communication, employee work discipline

1 Introduction

Human Resources (HR) is the key to organizational development because they are movers, thinkers, and planners to achieve organizational goals. However, to establish different human resources in an organization, communication is one factor that determines the achievement of organizational goals effectively and efficiently. The creation of effective communication will give comfort and a harmonious effect for all parties. So it can increase the discipline of employees. In contrast, when communication does not work well will be inconvenient between the individuals.

Communication depends on the ability of humans to understand each other. Even though communication is done can meaningful ambiguous. But, the main goal of communicating understands. Communication is not certain for all social problems. But failure in communication can be causing a large loss for the parties involved. This means that communication is a very important skill in human life. Besides, communication can occur in every human step. Human life cannot be separated from communication activities so that communication is an integral part of the system and order of human social life.

Therefore, in work, communication occupies an important role as an employee's motivation at work. A supportive work atmosphere will make employees or humans productive. One form of communication that needs attention in organizations is interpersonal communication. Interpersonal communication does not have to be done with words or greetings, but body language will also be effective interpersonal communication. This is because interpersonal
communication, whether done verbally or in body language, is an indicator of concern, especially interpersonal communication built between leaders and employees.

An organization will not develop without smooth and dynamic communication between leaders and employees. If a leadership organization ignores interpersonal communication with its employees and only focuses on work and results, the organization will experience decreased productivity because employees will feel bored and uncomfortable at work. Saturation and discomfort at work will have an impact on employee discipline. Decreased employee discipline will result in work not being completed on time, even neglected.

The Department of Communication, Informatics, and Encoding (DISKOMINFO) Sinjai Regency is one of the bureaucratic organizations with human resources with different character backgrounds. Thus, it is not uncommon for problems to occur due to misunderstanding among employees who initially only had the small talk, but the communicator did not understand the communicant's character, there was a dispute. Nur, Makmur Jaya also stated the same thing, Et al., “This is due to differences in the midst of a society which has the potential to turn into disputes. Small and very trivial events quickly escalated to the point of fighting and even war between citizens [1]. As a result, the work atmosphere becomes uncomfortable and affects employee work discipline. To avoid this, building a relationship that places each individual in the same position to create togetherness, complement each other, protect each other, defend and protect each other is very important [2]. Therefore, leadership interpersonal communication is needed to make the organization conducive to work with high discipline.

Several studies have been carried out; however, the point of emphasis of interpersonal communication is not on discipline. For example, research conducted by Sukadamai Gea [3]. This study emphasizes the process of interpersonal communication between leaders and employees in improving KFC Suzuya Binjai employees' performance. This research also uses a qualitative approach. Also, Baraney Nicolas Londa's research focuses on interpersonal communication applied by the leadership to members of the Sparkle Organizer work team in carrying out employee duties. This study also uses a qualitative approach [4]. Furthermore, research was conducted by Alice Tjandralila Rahardja [5]. This study emphasizes the process of interpersonal communication using a correlational survey research approach. The results of his research revealed a positive relationship between teacher interpersonal communication and teacher work motivation and teacher performance and better interpersonal communication, so higher teacher motivation and teacher performance increase. Tine Agustin Wulandari also researched interpersonal communication [6]. The correlational method is used to determine the extent of the relationship between AIESEC members' self-concept and the effectiveness of interpersonal communication. The results showed a very close relationship between AIESEC LC Bandung members' self-concept and the effectiveness of interpersonal communication. The better self-concept of the AIESEC LC Bandung members, the higher effectiveness of interpersonal communication. Although several studies on interpersonal communication have been carried out, interpersonal communication on discipline has not been popular, especially in the Sinjai District Government, even though discipline is a decisive factor in achieving an organization's effectiveness and efficiency.
2 Theoretical Review

2.1 Interpersonal communication

2.1.1 Definition of communication

Communication comes from the Latin language communicate, which means speaking, conveying messages, information, thoughts, ideas, and opinions carried out by someone to others by expecting answers, responses, or feedback [7]. In this context, Rundengan in Suriati emphasized that communication is a process that involves individuals in relationships and interactions [8]. Of course, the interaction process delivers a statement by one person to another to inform or change attitudes, opinions, and behavior, either directly orally or indirectly through the media. Thus, it can be said that someone who communicates means expecting other people to participate or act by the message content's goals and expectations. So, those involved in communication activities must have the same meaning and must both know what is being communicated; otherwise, the communication activities will not take place properly and are not effective.

2.1.2 Interpersonal communication

Interpersonal communication is a communication process between two or more people face-to-face where the sender of the message can convey the message to the recipient of the message directly and respond directly. Interpersonal communication is not just a series of stimuli, responses, stimulus-responses, but also a series of mutual acceptance processes and the delivery of responses that each party has processed [9].

Burhan Bungin argued that communication between people is face-to-face, allowing each participant to capture others' reactions directly, both verbally and nonverbally, directly [10]. Furthermore, A.W. Wijaya argues that interpersonal communication or interpersonal communication is the process of exchanging information and transferring understanding between two or more people from a small group of people with various effects and feedback [11].

Based on this understanding, it can be understood that interpersonal communication is the communication of two or more people face to face (face to face) to foster mutual acceptance by delivering responses that each party has processed. This interpersonal communication generally begins with shallow introductions and then continues to intimacy. Interpersonal communication in its application is seen as a feedback process produced through self-affirmation in dealing with others, resulting in openness, empathy, support, a positive feeling, and equality because they feel they are inequality.

2.1.3 Leader's interpersonal communication indicator

Interpersonal communication indicators include the following:

− Openness. Open to people who want to interact, our willingness to respond to Others honestly and frankly about something they say.
− Empathy. Empathy is feeling something like someone is experiencing it.
− Attitude support. Effective interpersonal relationships are relationships where there is mutual support.
Positive attitude. Interpersonal communication is established when people have a positive attitude towards themselves and other people and various communication situations.

Similarity. Interpersonal communication will be more effective if communication actors have the same values, attitudes, behaviors, and experiences [12]. In essence, interpersonal relationships will be established effectively if both parties meet the following conditions:

- Meet each other personally,
- Empathy equitably towards other persons and communication that can be understood by one another,
- Respect for each other, be positive and fair without judging or objection.
- Taking each other's experiences seriously, being receptive and empathetic to one another,
- Feeling that maintaining mutual openness and a favorable climate and reducing the tendency for interference,
- Demonstrate confident behavior and reinforce feelings of security towards others [13]. If these conditions are maintained and maintained, either by communicators or communicants, interpersonal communication can be successfully developed.

2.2 Work discipline

2.2.1 Definition

Work discipline is a tool used by managers to communicate with employees so that they are willing to change behavior and as an effort to increase one's awareness and willingness to comply with all company regulations and prevailing social norms [14]. Meanwhile, Malayu P. Hasibuan argued that discipline is the awareness and desire of a person to obey all company regulations and prevailing social norms [15].

Based on this definition, it can apply that work discipline, attitude, behavior, and actions of an employee are following the organization, both written and unwritten regulations, and if they violate, they will be given sanctions for their permission.

2.2.2 Work discipline indicators

According to Stephen P. Robbins et al., there are three aspects of work discipline, namely:

- Time discipline. Time discipline here is defined as an attitude or behavior that shows adherence to working hours, including attendance and compliance of employees during working hours, employees carrying out their duties in a timely and correct manner.
- Regulatory discipline. Written and unwritten rules and regulations are made so that an organization's goals can be achieved properly. For this reason, it requires a loyal attitude from employees to this predetermined commitment. Loyalty here means obedience and obedience in carrying out orders from superiors and regulations and rules set. The obedience of employees in using the completeness of uniforms that the organization or company has determined.
- The discipline of responsibility. One form of employee responsibility is the best possible use and maintenance of equipment to support office activities running smoothly. The ability to face the work is their responsibility as an employee [16].

Meanwhile, according to Sutrisno, there are four indicators of work discipline, namely:
- Obey the rules of time. Judging from the hours to come to work, hours to go home, and rest hours according to the company's rules.
- Compliance with company regulations. Basic rules about how to dress and behave at work.
- Obeying the rules of conduct at work. Shown by ways of doing jobs by the position, duties, and responsibilities and how to relate to other work units.
- Compliance with other regulations in the company. Rules about what can and should not be done by employees in the company [17].

Therefore, the direction and purpose of work discipline is the harmony and reasonableness of a group or organization's life, both formal and non-formal organizations. Harmony or fairness in the organization's life will only be possible if the relationship between members of the group or organization is carried out on mutually agreed-upon measures and values with full awareness. Thus, discipline is expected to make work effective and as efficient as possible in achieving organizational goals.

2.3 Hypothesis

Based on the background explanation and theoretical framework, the hypotheses in this study are:
Ha: There is an influence of leadership interpersonal communication on the work discipline of employees at the Communication, Informatics and Encryption Service, Sinjai Regency.
H0: There is no effect of interpersonal communication of leadership on the work discipline of employees at the Communication, Informatics and Encryption Service, Sinjai Regency.

3 Method

This research uses a survey research type. Robert M. Groves in F.C. Susila Adiyanta argues that survey research seeks to ask several respondents about their beliefs, opinions, characteristics, and behaviors that have occurred or are currently happening [18]. This study's variables were interpersonal communication of the leader as the independent variable (variable X) and employee work discipline as the dependent variable (variable Y). This research is located at the Department of Communication, Informatics, and Encoding (DISKOMINFO), Sinjai Regency. In this study, researchers applied population research, so the number of respondents was 65 people. The data collection methods in this study were questionnaires and documentation. The research instrument used was a questionnaire with a Likert scale of measurement and documentation. Data analysis used Pearson Correlation Coefficient and Linear Regression to determine the effect of variable X on variable Y, namely $Y = a + bx$. The interpretation of the size or size of the correlation coefficient is based on the following Table 1.

<table>
<thead>
<tr>
<th>Coefficient Interval</th>
<th>Relationship level</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.00 – 0.199</td>
<td>Very low</td>
</tr>
<tr>
<td>0.20 – 0.399</td>
<td>Low</td>
</tr>
<tr>
<td>0.40 – 0.599</td>
<td>Moderate</td>
</tr>
<tr>
<td>0.60 – 0.799</td>
<td>Strong</td>
</tr>
<tr>
<td>0.80 – 1.000</td>
<td>Very Strong [19]</td>
</tr>
</tbody>
</table>

Table. 1. The interpretation of the size or size of the correlation coefficient
A regression formula was used with the Determination Coefficient (KD) method to determine the effect, namely KD = R² X 100%. Assumption of acceptance of the hypothesis If the t-count statistic < t-table statistic, then H₀ is accepted (Hₐ) is rejected If t-count statistic > t-table statistic then H₀ is rejected (Hₐ) is accepted.

4 Result

Based on the research and data analysis that has been done, it is found that there is a positive and significant influence between the X variable (Personal Interpersonal Communication with Employees) and the Y variable (Employee Work Discipline). The value of a strong relationship is 0.711. The influence of interpersonal communication carried out by leaders and employees contributes 51.4% to create employee work discipline in the Office of Communication, Informatics, and Encoding, Sinjai Regency. The remaining 48.6% is formed due to several other factors.

It is known that the Sig value for the influence of X on Y is 0.012 > 0.05 and the count value is 8.162 < 1.668 t-table, so that it can be concluded that there is an influence of interpersonal communication among leaders on work discipline. The analysis results show that (H₀) is rejected and (Hₐ) is accepted, which states that; there is a significant influence of interpersonal communication of the leader on the work discipline of employees at the Information and Encoding Communication Office (BAKOMINFO), Sinjai Regency.

5 Conclusion

By referring to the results of the analysis and previous discussion, it can be concluded from the results of this study, namely the intensity of interpersonal communication carried out by the leadership to employees has a significant influence on employee work discipline. Therefore, leaders should intensify interpersonal communication with their employees, both verbally and nonverbally. This is because the intensity of interpersonal communication between leaders and employees can improve employee work discipline, especially in the Information and Encoding Communication Office (DISKOMINFO), Sinjai Regency.

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References


The Effect of Salesforces Satisfaction on the Mainstay Farmer Partner Performance in East Java

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Abstract. The performance of the salesforces of the mainstay farmer partners is not yet high. The level of technology adoption has not been maximal. Productivity is still low. Sales growth and profitability have not been significant in the last five years. This is thought to be related to salesforces satisfaction. The purpose of this study is to determine the effect of salesforces satisfaction on the performance of mainstay farmer partners in East Java. The study is conducted using quantitative methods. The analysis unit is the mainstay farmer partner in East Java. Data is collected in 2020. PLS is used to test the hypothesis. The result showed that salesforces satisfaction has an effect on the performance of the mainstay farmer partners. The job description is an aspect that has a more dominant influence than remuneration and career in improving the performance of mainstay farmer partners in East Java. The results of this study have implications for companies associated with mainstay farmer partners that to improve the performance of mainstay farmer partners, it is necessary to establish salesforces fulfillment, especially in terms of the job description.

Keywords: Salesforces satisfaction, performance, mainstay farmer partner

1 Introduction

Agricultural companies which are mostly dominated by Multi-National Companies originating from the United States or Europe such as Corteva, Syngenta, Bayer, FMC, UPL, Advanta are usually dealing with a small number of farmers with large land ownership so that in their home country they only need a little field workers/agronomist. The limited number of field workers was circumvented by the formation or selection of Farmer Partners by several companies engaged in agriculture to be able to assist their organic or agronomist extension workers in carrying out several field activities to convince and influence farmers in choosing the best production facilities such as seeds, fertilizers, pesticides and also market access.

These partners are chosen by each company with various criteria such as having a kiosk/farmer’s shop that is strategically located, having field workers to help market agricultural production facilities, creating demand, having sufficient capital and usually being a community leader, and local people who are respected by the surrounding community/society.

Until now, their existence, success in influencing farmers to use agricultural means products and modern agricultural technology that support the creation of food security varies from region to region because there is no standard for companies engaged in agriculture either Multi-National Companies (MNC), State Owned Enterprises, or National Companies, both in terms
of criteria for selecting Farmer Partners, training that must be provided, as well as the number of incentives that must be provided and also helping to gain access to capital to support their business growth.

The phenomenon shows that the performance of the salesforces of the mainstay farmer partners is not yet high in terms of the level of adoption of modern agricultural technology. The average agricultural productivity is still low. In addition, sales growth and profitability have not been significant in the last five years. The term "employee performance" means personal work performance after exerting the necessary effort in the job associated with getting a meaningful job, the profile involved, and loving co-workers/employers [8]. While related to marketers, Baldauf et al. [2], defines the performance of salesforces as an evaluation of the person's contribution to achieving stated organizational goals.

This condition is alleged to be related to the lack of satisfaction of salesforces. The phenomenon shows that salesforces often easily move from one agricultural company to another because they are tempted by offers made by competing companies. This indicates there was dissatisfaction in the previous workplace. Based on description above this study purpose to determine the effect of salesforces satisfaction on salesforces performance.

2 Literature Review

Strenitzerová and Achimský [11] argue that satisfying employee requirements and providing excellent working circumstances is the best way to achieve success, sustainability, competitiveness, and increased company efficiency. In addition, the quality of work-life has a positive and significant effect on employee job satisfaction and employee loyalty.

The majority of definitions imply that job satisfaction is a suitable irrational response to employment [9]. Job satisfaction refers to an individual's emotional reaction to many aspects of work [5].

Sila and Sirok argued that [10] the relevant definition of job satisfaction according to Spector, namely how individuals feel about their jobs and various facets of their jobs., Spector emphasizes connection between negative and positive emotions as the impact on employee behavior and performance, which influences organizational outcomes. Therefore, Sila and Sirok [10] refer to Spector's job satisfaction survey in measuring job satisfaction in their study which includes the following aspects: Payment; Supervision; Fringe benefits; Promotion; Contingent rewards; Rules; instructions; Communication; Co-workers; Nature of work; and working conditions.

Furthermore, based on a review of various literature, Strenitzerová and Achimský [11] measure employee job satisfaction using three dimensions, namely: a. Satisfaction with the job description; specifically, the degree to which an employee is satisfied with the job's substance; b. Satisfaction with employee remuneration; which includes satisfaction with wages and financial value; and c. Workers are satisfied with their professional and career development; employees are satisfied with their professional and career development. The dimensions from Strenitzerová and Achimský [11] are used to test the satisfaction variables of salesforces in this study.

Employee performance is a source of strategic excellence for the company [13]. Diamantidis and Chatzoglou [4] Employee performance is defined as the degree to which an employee's productivity satisfies the company's performance criteria. They studied three variables affecting employee performance:
a. Factors affecting the firm/environment, such as managerial support, training culture, organizational culture, and environmental dynamic (perceived instability).

b. Factors relating to the jobs, such as the work atmosphere, communication with coworkers, and job autonomy.

c. Factors affecting employees: proactiveness, adaptability, intrinsic motivation, skill flexibility, commitment, and skill level.

According to Pradhan and Jena [8], Three factors define employee performance: task performance, adaptable performance, and contextual performance. Meanwhile, for employees as marketing personnel, Baldauf et al. [2], marketers’ performance is an evaluation of the person’s contribution to achieving stated organizational goals. To evaluate the performance of marketers, according to Barker in Aqmala and Ardyan [1], a salesperson's performance can be evaluated using factors that can be controlled by the salesperson itself and can be measured through the total volume of sales and achievement of sales targets.

According to this concept, the dimensions used to evaluate salesforce performance in this study refer to Diamantidis and Chatzoglou [4] and Barker in Aqmala and Ardyan [1], and include the following dimensions: firm/environment-related factors, job-related factors, and employee-related factors, and achievement of sales targets.

Money and Graham [6] established a relationship between salesperson satisfaction and performance by testing a causal model of salesperson performance and satisfaction using data gathered in Japan and the United States. Their findings show that satisfaction and sales force performance are causally related. A hypothesis about sales objectives is formed based on the information above:

H: Marketers' satisfaction affects the performance of marketers

3 Method

This study used a quantitative method with a cross-sectional survey design. A cross-sectional design survey is a survey where the research sample is taken at one time (not continuous). By using reliable farmer partners as the unit of analysis, the population of this study is the mainstay farmer partners in East Java, so that the unit of observation is the management. Samples were taken from as many as 50 marketers in East Java. The data was processed using Partial Least Square (PLS).

4 Results and Discussion

4.1 Analysis of structural model (inner model)

<table>
<thead>
<tr>
<th>Variable</th>
<th>R Square</th>
<th>Cronbach's Alpha</th>
<th>Composite Reliability</th>
<th>Q square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salesforces Satisfaction</td>
<td>-</td>
<td>0.959</td>
<td>0.966</td>
<td>0.798</td>
</tr>
<tr>
<td>Salesforces Performance</td>
<td>0.461</td>
<td>0.979</td>
<td>0.982</td>
<td>0.797</td>
</tr>
</tbody>
</table>

Source: SmartPLS 2.0
The study of structural models (inner models) elucidates the relationships between latent variables. The inner model was assessed using the Goodness of Fit (GoF) method, which quantifies the difference between observed and predicted values. This is demonstrated by the R square on endogenous structures and the Q square (prediction relevance), also known as Stone-Geisser's. Q square values of 0.02 (minor), 0.15 (medium), and 0.35 (large) were obtained for the endogenous construct using a reflecting indicator. According to Chin [2, R square values of 0.67 (strong), 0.33 (medium), and 0.19 (weak) were used (weak). As the independent variables in Table 1 satisfy the strong criterion (> 0.67 = strong), and the Q square values satisfy the high criteria, it may be concluded that the research model is supported by empirical data or that the model is fit.

4.2 Analysis of measurement model (outer model)

The analysis of the measurement model (outer model) reveals the connections between the latent variables (indicators) and each latent variable. A validity and reliability analysis is conducted to ascertain the latent variables and indicators that were used to construct the dimension. Cronbach's Alpha is used to assess the reliability of a dimension when it comes to measuring variables. When Cronbach's Alpha is better than 0.70 (Nunnaly, 1994), the dimensions and indicators are considered reliable when used to measure variables. Composite reliability and Cronbach's Alpha values more than 0.7 suggest that all variables in the model should fulfill the criterion for discriminant validity. Then, one may deduce that all of the variables are extremely trustworthy. Cronbach's Alpha is greater than 0.7 and Composite Reliability is greater than 0.7, suggesting that all variables have reliable dimensions and indicators.

The outer model's output is shown in Table 2 for each indicator dimension. With regard to the second order, This research model explains the link between dimensions of latent variables and indicators through the use of the derived loading factor.

<table>
<thead>
<tr>
<th>Variable-Dimension</th>
<th>Indicator-Dimension</th>
<th>λ</th>
<th>SE(λ)</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salesforces</td>
<td>Salesforces Satisfaction -&gt; job description</td>
<td>0.989</td>
<td>0.002</td>
<td>488.372</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>SATIS1 &lt;- job description</td>
<td>0.863</td>
<td>0.038</td>
<td>22.948</td>
</tr>
<tr>
<td></td>
<td>SATIS2 &lt;- job description</td>
<td>0.883</td>
<td>0.016</td>
<td>53.834</td>
</tr>
<tr>
<td></td>
<td>SATIS3 &lt;- job description</td>
<td>0.941</td>
<td>0.011</td>
<td>82.610</td>
</tr>
<tr>
<td></td>
<td>Salesforces Satisfaction -&gt; remuneration</td>
<td>0.979</td>
<td>0.005</td>
<td>199.854</td>
</tr>
<tr>
<td></td>
<td>SATIS4 &lt;- remuneration</td>
<td>0.940</td>
<td>0.009</td>
<td>98.987</td>
</tr>
<tr>
<td></td>
<td>SATIS5 &lt;- remuneration</td>
<td>0.937</td>
<td>0.010</td>
<td>90.282</td>
</tr>
<tr>
<td></td>
<td>Salesforces Satisfaction -&gt; career growth</td>
<td>0.982</td>
<td>0.004</td>
<td>272.632</td>
</tr>
<tr>
<td></td>
<td>SATIS6 &lt;- career growth</td>
<td>0.914</td>
<td>0.016</td>
<td>57.611</td>
</tr>
<tr>
<td></td>
<td>SATIS7 &lt;- career growth</td>
<td>0.901</td>
<td>0.022</td>
<td>40.483</td>
</tr>
<tr>
<td>Performance</td>
<td>Salesforces Performance -&gt; Firm/environment-related factors</td>
<td>0.991</td>
<td>0.002</td>
<td>461.425</td>
</tr>
<tr>
<td></td>
<td>PERF1 &lt;- Firm/environment-related factors</td>
<td>0.913</td>
<td>0.023</td>
<td>39.475</td>
</tr>
<tr>
<td></td>
<td>PERF2 &lt;- Firm/environment-related factors</td>
<td>0.952</td>
<td>0.012</td>
<td>81.178</td>
</tr>
<tr>
<td></td>
<td>PERF3 &lt;- Firm/environment-related factors</td>
<td>0.937</td>
<td>0.013</td>
<td>73.897</td>
</tr>
<tr>
<td></td>
<td>PERF4 &lt;- Firm/environment-related factors</td>
<td>0.930</td>
<td>0.018</td>
<td>51.430</td>
</tr>
<tr>
<td></td>
<td>Salesforces Performance -&gt; Job-related factors</td>
<td>0.981</td>
<td>0.004</td>
<td>233.329</td>
</tr>
<tr>
<td></td>
<td>PERF5 &lt;- Job-related factors</td>
<td>0.968</td>
<td>0.010</td>
<td>100.561</td>
</tr>
</tbody>
</table>
The outer model of dimensions expressed in terms of their indicators reveals that the indicators are valid at \( t = 2.01 \) (\( t \) table at \( \alpha = 0.05 \)). The result of the latent variable measurement model on their dimensions indicates the validity of dimensions in measuring latent variables (Figure 1).

![Path diagram of research model](image)

**Fig. 1. Path diagram of research model**

Then, based on the research framework, a structural model was developed:

\[
Y = 0.679X1 + \zeta1
\]

\( X1 = \) SalesForces Satisfaction

\( Y = \) SalesForces Performance

\( \zeta1 = \) Residual

Below is the result of hypothesis testing both simultaneous and partially.

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>( \gamma )</th>
<th>SE(( \gamma ))</th>
<th>t-value</th>
<th>( R^2 )</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salesforces Satisfaction ( \rightarrow ) Salesforces Performance</td>
<td>0.679</td>
<td>0.097</td>
<td>7.012</td>
<td>0.461</td>
<td>Hypothesis accepted</td>
</tr>
</tbody>
</table>

*Significant at \( \alpha = 0.05 \) (\( t \) table = 2.01)
Table 3 demonstrates that salesforce satisfaction has a substantial impact on salesforce performance, with an R2 of 46.1 percent. According to the findings of hypothesis testing, the following can be regarded as a research finding in (Figure 2).

According to the findings of this study, salesforce satisfaction has an effect on salesforce performance. Three dimensions contribute to Salesforce's happiness. The test findings indicate that contentment with the job description is the primary factor that contributes to salesforce satisfaction, which has an effect on salesforce performance. Satisfaction with the job description include individual job descriptions, teamwork descriptions, and the job assessment system. Satisfaction with pay include salary as well as bonuses/fees. Employee happiness with professional and career development represents employee satisfaction with professional and career development.

Satisfaction with these three aspects is proven to be able to increase salesforces performance. This is consistent with the results of research by Money and Graham [6] which show a causal relationship between satisfaction and the performance of marketers. This is also consistent with Spector in Sila and Sirok [10] Several believe that job satisfaction refers to how individuals feel about their jobs and various elements of their jobs. Spector focuses in particular on the link between negative and positive emotions and their impact on employee behavior and performance, which in turn has an effect on organizational results.

The result of this study has practical implications for the management of agricultural companies in their efforts to improve the performance of salesforces. Where this can be done by increasing the satisfaction of salesforces in terms of job descriptions, remuneration, and career growth and professionalism.
5 Conclusion

This study aims to determine the effect of salesforces satisfaction on salesforces performance. The result of this study indicates that salesforces satisfaction is proven to effects salesforces performance. Satisfaction with the job description is the main aspect that results in satisfaction for salesforces which has an impact on salesforces performance. The results show that provide practical implications for the management of agricultural companies that efforts to improve the performance of salesforces of mainstay farmer partners can be done by increasing their satisfaction in terms of job descriptions, remuneration, and career growth and professionalism.

References

Society 5.0 in Education: Higher Order Thinking Skills

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{mytraprima@gmail.com\(^1\)}

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Universitas Negeri Makassar, Indonesia\(^2\)

Abstract. The social life, even in education, is increasingly changing with technological innovation that is growing rapidly. A new idea, the society 5.0, was presented in 2016 to anticipate the technological developments. It becomes one of the Japanese government's efforts in dealing with global trends that emerged due to sector and society. The purpose of the research is to describe how the students prepare to face society 5.0 with a focused review of some research about it and high order thinking. The method used is the study of literature while the source data are from secondary data. Data collection methods apply textbooks, journals, and research studies. The result of the study reveals that the presence of society 5.0 will be able to solve social problems through a global system integrated from virtual and real space. Especially in the world of education, students must have a high level of thinking ability, such as, the ability to solve problems, think critically, and be creative. These are parts of higher-order thinking skills, and they will help the students to solve each problem faced within school and community.

Keywords: Higher-order thinking skills, technology, society of 5.0

1 Introduction

The development of IT and technology demand 4.0 for society 5.0, which the Japanese government has created with the concept of a human-centered society and technology, requires education in order to revolutionize distance learning [1]. Different ideas have been developed to replace traditional methods of learning, one of which is e-learning. It can be used as an alternative to educational problems, complementing and replacing existing learning activities [2].

Society 5.0 essentially uses artificial intelligence, the Internet of Things (IoT), machine learning and big data [1]. The emergence of it is able to solve social problems through integrated digital systems from virtual and real space [3]. From the practice of society 4.0 to society 5.0 in the community, we are required to have Higher Order Thinking Skills (HOTS). Similarly, in the world of education, Higher Order of Thinking Skills (HOTS) is integrated with character education so that students' higher thinking skills and creativity do not override the local wisdom of each region.

This new era becomes a challenge and opportunity for society and students specially to improve their soft skills in order to increase the learning proficiency and skills to be the capital of the future. Therefore, it has need of a High Order of Thinking Skills (HOTS) learning system implementation.

In the world of education students must have three high-level skills: problem-solving skills, critical thinking, and social creativity [4]. These three abilities are achieved by the higher order
of thinking skills (HOTS). HOTS is an over-average cognitive thinking developed from different cognitive concepts and methods, as well as learning taxonomy, where students are required to treat information and ideas without changing meaning and impact.

These changes are made when students combine facts and ideas to synthesize, explain, assumed or arrive at conclusions or interpretations that are part of the problem-solving, taxonomic flourishing, taxonomy learning, teaching, and evaluation method [5]. According to the floral taxonomy and taxonomic learning, students can solve problems and find new meanings (for them). Teachers’ role in realizing students' high thinking abilities is to create activities or environments by engaging students in high-level thinking as knowledge producers without forgetting moral education and character.

2 Method

This research uses a literature study. The data used is secondary data. The author will collect relevant data or information and examine various theories and reference sources both the research results, such as books, journals, articles, and other authors' relevant thoughts about society 5.0 and higher-order thinking skills. The data sources we obtain from journals, previous research, and news will be analyzed by providing narration descriptions to explain the research results. A literature study carried out the analysis data. The literature study was carried out with reading library sources to obtain the required data. Collect seeds of study material relevant to the research problem, quote information, conclude, and interpret the results.

3 Result and Discussion

3.1 Presenting the results

3.1.1 Society 5.0

Company 5.0 is Japan's vision to anticipate the 4.0 industrial revolution. Société 5.0 is a super intelligent society that integrates technologies such as artificial intelligence (AI), the Internet of Things (IoT), big data and robots into every social lifeline [6]. Specifically, society 5.0 aims to build an intelligent society by creating a "super intelligent social services platform" that will create new values by cooperating and cooperating with several different systems to facilitate human work [2].

Society 5.0 is the basic plan of the fifth technology and science as a future society, which is Japan's vision to be built on society 4.0 and aims for society [8]. At first, the society was formulated from the society of hunting (society 1.0), the society of agriculture (Society 2.0), the society of industrial (Society 3.0), and the society of information (Society4.0) [9]. Changes in human habits from time to time can be seen in Figure 1 below:
Figure 1 shows that the differences in human life habits from each era. Every age, there is an increase in humans' technology from a learning and human way of thinking [2].

With the concept of society 5.0, Japan introduced digital technology for various systems and accelerated its implementation to dynamically achieve a society where all citizens are involved. The Japanese government wants to build a society in which all citizens, including young and elderly people, women and men, disabilities and disabled people with intractable diseases, can live a satisfying life and demonstrate their full ability, that is to say, to a society in which all citizens participate dynamically. The system revolution will be innovated by Internet of Things, Big Data, Robots and Artificial Intelligence on automated driving, health care, financial transactions, construction, agriculture, forestry, and fishing and tourism [3].

The use of the Internet of Things (IoT) in education changes the traditional teaching practices and brings about changes to educational institutions' infrastructure. Internet of Things (IoT) is one of the four things that make universities produce qualified graduates, namely competency-based education, the use of IoT (Internet of Things), using virtual or augmented reality, and the utilization of AI (Artificial Intelligence) [4].

The Internet plays very important role to facilitate the learning for cognitive enhancement of students in formal and informal environments. To improve their intellectuals, online course and internet media are necessary to provide [5].

### 3.1.2 Higher order thinking skills (HOTS)

Lessons that require higher thinking skills for specific communication clarity as well as reducing ambiguity and confusion and improving students' thinking processes. The learning plan should include learning models that enhance student thinking, such as applied thinking, and adaptation to various student needs. Scaffolding (supporting students at the start of lessons and allowing students to study independently) helps students to develop their skills in learning [7].

Education is very useful in the era of society 5.0, which is formed by the results or products of the 4.0 industrial revolution. Education is a major factor in efforts to improve the quality of human resources. In line with one of the goals of national education is to realize a creative human being. Therefore, varieties of learning methods and models arise to improve high-order thinking skills (HOTS) [8].
Thinking at a high level encompasses critical thinking, problem solving, and reasoning. Bloom (1956) first presented the term “taxonomy bloom” as a high level thinking or commonly referred to as Higher Order Thinking Skippers (HOTS) in his book Taxonomy of Educational Objectives: Classification of Educational Targets. Bloom argues that there are three important domains to understand the purpose of learning, namely; cognitive, affective, and psychomotor [9]. There are six thought processes in theory Bloom, they are; 1) knowledge; 2) comprehension; 3) application; 4) synthesis; 5) evaluation. Then in 2001, the Bloom version of the cognitive domain was revised by Lorin Anderson, David Karthwhol, et al to become; 1) recollection; 2) comprehension; 3) application; 4) analysis; 5) evaluation; 6) creation [10]. The following is shown in the matrix Figure 2 of the revision made by Lorin Anderson:

![Matrix Image](image.png)

Fig. 2. Mapping revision taxonomy bloom [10]

Figure 2 shows that Lorin Anderson made a cognitive domain change that Bloom had compiled. Matrix changes are expected to make each individual able to reach the hots level. Various types of learning models that experts have put forward can be used to improve students' problem solving, critical thinking, and creative skills. So "HOTS can be said to succeed if students are involved with what they know in the learning process then students are able to distinguish thoughts or ideas clearly, argue well, be able to solve problems, be able to construct explanations, be able to hypothesize and understand complex things clearer, where this ability extremely shows how students reason”[11]

3.1.3 Higher order thinking skills (HOTS) implementation and strategies

Lessons that require a high level of thinking skills instruct technical communication to reduce student confusion and improve students' thinking abilities. Learning plans should be designed using models to improve learning skills, examples of applied thinking and adaptation of the needs of every student. Teachers help students gradually to learn and require students to learn independently to help students develop high-level learning skills. Good learning strategies have stages of training, organization, elaboration, and metacognition. Lessons should be specifically designed to teach specific learning strategies. Each Teacher is advised to reduce direct learning or teacher-centered learning and prioritize practical knowledge [3].

The importance of providing effective hots learning to achieve the vision and mission of the educational objectives is on teachers' shoulders to prepare learning that can realize students with HOTS abilities and can transmit information into secondary, constructive, and understand the meaning of learning.
3.2 Discussion

The results of the study literature found some relationship between society 5.0 and higher-order thinking. Hayashi et al., revealed that society 5.0 would solve social problems through a global system integrated from virtual and real space [2]. The use of the internet, software, and robots is part of technologies emerging today that are parts of society 5.0. According to society 5.0, especially in education, students must have a high level of thinking ability. As L. Goodson points out the three higher-order thinking abilities are the ability to solve problems, think critically, and creativity [7]. Besides having a high level of thinking ability, it should also be aligned with character education so it is not easy to forget and does not rule out each region's local wisdom. The use of visual media as part of the use of the software is always interesting to apply in education. Smith and Lazo's (2014) research one of them on Developing thinking skills through the visual: an a/r/t/topographical journey, where this research emphasizes 'thinking' as the main competency and emphasizes visual literacy development. This study showed that students’ critical thinking skills could be developed through visuals [12]. According to the use of software, the use of the Internet of Things (IoT) also affects students’ thinking skills. Zin's research explains this, Rosli, Saleh (2019) in the Effectiveness of online learning environment in improving thinking skills in mathematics, which found that students who learned using online learning could also enhance students’ thinking skills [13]. Hence, in this case, increasing thinking skills by using an online learning environment is possible.

From some study literature, it requires preparation done to welcome the presence of 5.0 to dominate the era in the future. Similarly, in education, everyone must prepare carefully in the face of the challenges of society 5.0 because education is the main factor in efforts to improve the quality of human resources. This proves that it is necessary to have the establishment of High Order Thinking Skills to answer the challenges of society 5.0.

4 Conclusion

Technology today demands the education to evolve into an E-learning method, especially in the face of the Era Society 5.0 that Japan's government has initiated. In order to respond to the challenges of society 5.0 and to achieve educational goals, students must prepare for higher order thought skills (HOTS). Higher Order Thinking Skills is one of the important competencies in the era of society 5.0. Hence, teachers must improve soft skills to enhance their competence and skills with the High Order Thinking Skills learning system, especially students.

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References


Youth Virtue Self-Esteem and Positive Presentation in Social Media Instagram

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Abstract. This research departs from the phenomenon of self-existence or also called self-expression among users of social media Instagram. This phenomenon can cause problems, one example is data leakage, which can occur if one shows oneself too often on Instagram social media. The data leaked is usually misused by other parties for their interests. The purpose of this study is to analyze the variables of self-esteem and self-presentation related to this phenomenon, especially to find out the forms of self-esteem and self-presentation that users do on Instagram. The research subjects included 110 teenage Instagram users involved based on their willingness to fill out the self-esteem and self-presentations questionnaires. This study uses variance analysis techniques towards the data, particularly to compare the average total score on variable aspects. The results of the analysis show that the four aspects of self-esteem have different average values and that virtue is the most sought-after form of self-esteem. Likewise, the comparison of the five aspects of self-presentation shows that the positive one is the dominant form performed by the subjects. This research is expected to provide theoretical benefits in the field of social psychology, and in practical terms, to provide an overview of self-presentation on Instagram.

Keywords: Self-presentation, positive; self-esteem, virtue, Instagram

1 Introduction

Many people use the internet these days, even the internet has become a necessity for individuals today [1]. From children to parents, they all become internet users [2]. On average people use the internet to view social media [3]. Media social Instagram is one of the most widely used social media. According to survey data, Instagram is the third most used social media after YouTube and Facebook [4]. Instagram is much popular for its focus on images so that it can enhance one’s self-image. This uniqueness also attracts teenagers to use it, while at their age they can learn anything, especially technology, more quickly [5]. Through Instagram, one can express oneself and show off, and get feedback from other users as proof of one’s existence [6]. Often in expressing themselves on Instagram, people will post their daily activities, and decorate the post to make it look attractive, such as adding filters, adding place descriptions, and so on. However, posting too much on Instagram will cause problems, one example is data leakage [7]. Instagram as a social media is also vulnerable to data leakage [8]. The data leaked will then be used and utilized by other parties for their personal gain [9]. In using Instagram, an individual displays several characteristics such as always showing himself/herself wherever and whenever to get praise and attention from others, this can be called self-presentation.
Self-presentation is a behavioural action related to individual awareness to build the desired impression on other individuals [10]. Instagram users show their self-presentation by sharing photos, videos, interesting articles or sentences, and also show their personal identity [11]. Making self-presentation through Instagram indicates a relationship established by CMC (computer-mediated communication), not by FTF (Face to Face) [12]. According to Huang in 2014 [13], there are four ways that social media users use to improve their presentation. Firstly, ingratiation, that is when Instagram users pay attention and give praise to other users to show kindness and concern. Secondly, users control the impact of damage by increasing their positive impression and reduce their negative impression. This is also related to how individuals apologize to other users when they make mistakes. The third one is manipulation, that is when individuals comment negatively on other users and develop a strategy of denial when being blamed for something and provide a logical explanation of why these other users deserve negative comments. The last one is self-promotion. In this case, individuals will usually use social media to share something positive about themselves, such as their achievements and positive activities.

According to Yang and Bradford Brown in 2016 [14], online self-presentation has five dimensions, namely breadth of information, depth of information, positivity, authenticity, and intentionality. Firstly, the breadth of information refers to the quantity or amount of information that is shared and presented to other users or individuals in general. Secondly, the depth of information refers to the extent to which personal information is shared and presented to individuals in general. Thirdly, positivity refers to how far and how much information can provide a good image to optimize the self-image as an individual want. Fourthly, authenticity means here refers to how accurate the information provided can describe the individual. And finally, intentionality means the extent to which individuals are aware of and know the information shared. The self-presentation that everyone demonstrates is different, related to the factors that affect it. According to Salim, et al. One of the important factors in building self-presentation is self-esteem [15].

Coopersmith explains that self-esteem is an assessment that one does in relation to oneself, which can reflect an acceptance or rejection, and shows how much the one feels oneself valuable [16]. The self-esteem aspects which Coopersmith put forward [17] are as follows. Firstly, the aspect of power, concerning how strongly individuals can rule and control themselves and others. The second aspect is meaningfulness, concerning the care, attention, and affection that an individual receives from others and serves as a sign of acceptance and popularity. The third one is the virtue, in this case, described as compliance with morals, ethics and principles in religion marked by doing allowed behaviour and avoiding prohibitions. The fourth aspect is the ability, that is when individuals show their success through achievements or completed tasks as requested.

Previous studies have discussed a lot about self-presentation and self-esteem. Like Kramer and Winter's research in 2008, this research found that self-efficacy affects self-presentation, so it can also affect the number of virtual friends, profile details and types of poses. It was also explained that self-esteem did not significantly affect self-presentation [18]. In line with the research of Salim et al., in 2017 which found that self-presentation is affected by the fear of being left behind, while the fear of being left behind is affected by the self-esteem. Self-esteem cannot directly affect self-presentation and must be mediated by a fear of being left behind [15]. This result is inversely proportional to Mehdizadeh's study in 2010, which found that self-presentation and self-esteem are interrelated in opposite directions. Low self-esteem will increase self-presentation and vice versa [19]. Through this study, the researcher wanted to examine and make a deeper exploration of self-presentation and self-esteem. This study will
analyze the dimensions or aspects of the self-presentation and self-esteem variables in Instagram users. This study is aimed at finding out the ways Instagram users use in presenting themselves and kinds of self-esteem they wish to have. This research is expected to provide new knowledge and understanding of self-presentation and self-esteem to young Instagram users.

2 Method

This study is quantitative research, supported by its research questions and data. This study will show how the research will relate to data obtained from the field, and explain the procedures and tools used [20]. The data collected in this study involved 110 respondent subjects who were teenagers and actively used social media Instagram. The subjects were selected based on their willingness to fill out self-presentation and self-esteem questionnaires based on the theories of aspect and dimension. Self-esteem variables were arranged based on the Coopersmith’s theory of aspect [17], while self-presentation variables were arranged based on the dimensional theory that Yang & Bradford Brown put forward [14]. By employing the theories of aspect and dimension, several indicators are then obtained. From this indicator, the items or statements are formed for the respondents to choose and fill.

Towards the obtained data, the assumption test will be carried out first. Several assumption tests include normality, linearity, and homogeneity tests. Normality test is needed to see whether the research data is normally distributed or not, so the next analysis technique can be decided (non-parametric or parametric) [21]. The linearity test is to see whether the research data were evenly distributed among the research subjects (respondents) [22]. Homogeneity test is used to see whether the data is homogeneous or heterogeneous. After carrying out the assumption test, the data is processed and analyzed through analysis of variance (Anova). Analysis of variance is mainly used for comparing the total average score on each aspect of the two variables (self-esteem and self-presentation) [23]. This is used to dig deeper, which aspects (of each variable) the subject uses the most. In the analysis of variance, the total average score on each aspect of each variable will be compared, to find out which aspects are used most often. This study uses the analysis of variance Multivariate to measure aspects and dimensions of more than one variable. Multivariate is a method that aims to analyze a lot of data of the variables that assumed related to each other [24].

3 Result and Discussion

3.1 Presenting the results

This study focuses on finding answers about what self-esteem looks like, and what kind of self-presentation is that Instagram users look for, therefore test assumptions and analysis of dimensions or aspects of each variable are used for the analysis. The results show that most Instagram users demonstrate positive self-presentation to get self-esteem which is considered a virtue. This is based on the results of the total average score and the categorization that has the highest number of subjects. The explanation of the research results in more detailed is given as follows.
3.1.1 Assumption test

The assumption tests used in this research are the normality test, linearity test, and homogeneity test. The assumption test results can be seen in the table below (Table 1). The result of the Assumption Test shows that the self-presentation variable and self-esteem variable are normally distributed with a normality value 0.200 for both variables.

Table 1. Assumption Test

<table>
<thead>
<tr>
<th>Variables Tested</th>
<th>Normality</th>
<th>Linearity</th>
<th>Homogeneity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-presentation</td>
<td>0.200</td>
<td>0.000</td>
<td>0.866</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>0.200</td>
<td>0.000</td>
<td>0.432</td>
</tr>
</tbody>
</table>

Both variables are also declared linear with a linear significance value of 0.000. Furthermore, the homogeneity value of the self-presentation variable is 0.866 and the self-esteem variable is 0.432. The result shows that the two variables are homogeneous since both passes the assumption test. Thus, the next analysis technique that can be used is parametric analysis.

3.1.2 Analysis of self-presentation and self-esteem dimensions

The next test is the Analysis of dimensions or aspects of self-presentation and self-esteem variables, while self-presentation has five dimensions and self-esteem has 4 aspects. This study uses parametric analysis techniques, namely the Anova test. The results of data analysis can be seen in the table below. Table 2 shows the results obtained from the analysis of the dimensions of self-presentation. For the breadth of information, the average value is 10.247, the F value is 3.829, and the significance is 0.000, which means that there is a significant difference with other dimensions. Also, the subjects have been grouped into 3 (three) categories, namely low, medium, and high.

Table 2. Analysis of self-presentation dimensions

<table>
<thead>
<tr>
<th>Self-Presentation Dimension</th>
<th>Average Value</th>
<th>F Value</th>
<th>Significance</th>
<th>Total Subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breadth of Information</td>
<td>10.247</td>
<td>3.829</td>
<td>0.000</td>
<td>3 51 25</td>
</tr>
<tr>
<td>Depth of Information</td>
<td>11.614</td>
<td>7.348</td>
<td>0.000</td>
<td>4 51 18</td>
</tr>
<tr>
<td>Positivity</td>
<td>41.286*</td>
<td>10.76</td>
<td>0.000</td>
<td>2 50 32*</td>
</tr>
<tr>
<td>Authenticity</td>
<td>9.808</td>
<td>3.860</td>
<td>0.000</td>
<td>3 51 23</td>
</tr>
<tr>
<td>Intentionality</td>
<td>11.698</td>
<td>5.257</td>
<td>0.000</td>
<td>4 46 22</td>
</tr>
</tbody>
</table>

For the breadth of information, there are 34 subjects in the low category, 51 in the medium category, and 25 in the high category. For the next dimension, that is the depth of information,
the average value is 11.614, the F value is 7.348 and the significance value is 0.000, which indicates a significant difference with other dimensions. For the dimension of depth of information, there are 41 subjects in the low category, 51 in the medium category and 18 in the high category. For the third dimension, namely positivity, the average value is 41.286, the F value is 10.760, and the significance value is 0.000. There are 28 subjects in the low category, 50 in the medium category and 32 in the high category. For the dimension of authenticity, the average value is 9.808, the F value is 3.860, and the significance value is 0.000. Judging from the total subject, there are 36 subjects in the low category, 51 people in the medium category and 23 people in the high category. Finally, for the dimension of intentionality, the total number of subjects includes 42 people in the low category, 46 in the medium category and 22 in the high category. The aspects of the self-esteem variables will be also further discussed. Table 3 shows the aspects regarding self-esteem. The first aspect, namely power. As explained in the table, its average value is 12.288, its F value is 4.157 and its significance is 0.000.

<table>
<thead>
<tr>
<th>Self-Esteem Aspects</th>
<th>Average Value</th>
<th>F Value</th>
<th>Significance</th>
<th>Total Subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Low</td>
</tr>
<tr>
<td>Power</td>
<td>12,288</td>
<td>4,157</td>
<td>0,000</td>
<td>3</td>
</tr>
<tr>
<td>Significance</td>
<td>11,145</td>
<td>3,261</td>
<td>0,000</td>
<td>1</td>
</tr>
<tr>
<td>Virtue</td>
<td>37,465*</td>
<td>10,800</td>
<td>0,000</td>
<td>1</td>
</tr>
<tr>
<td>Ability</td>
<td>26,206</td>
<td>6,621</td>
<td>0,000</td>
<td>4</td>
</tr>
</tbody>
</table>

This means that this aspect has a significant difference from other aspects. Its total subjects (as categorized) include 3 people in the low category, 48 people in the medium category and 59 people in the high category. The second aspect is the significance, which as shown in the table has the average value 11.145, the F value 3.261, and the significance value 0.000. Its total subjects consist of 11 people in the low category, 55 people in the medium category, and 44 people in the high category. The third aspect is the virtue, as described in the table has the average value 37.465, the F value 10.800, and the significance value 0.000. Its total subjects include 1 person in the low category, 44 people in the medium category, and 65 people in the high category. Finally, the fourth aspect, namely the ability, as seen in the table has the average value 26.206, the F value 6.621, and the significance value 0.000. The total subjects of this aspect consist of 4 people in the low category, 65 people in the medium category, and 41 people.

### 3.2 Discussion

This research has managed to generate the latest findings, different from other studies that talks about self-presentation and self-esteem on social media, especially Instagram. Joanna C. Yau and Stephanie M. Reich in 2019 conducted research related to self-presentation and concluded that perspective-taking and approval from peers can affect online self-presentation [25]. Furthermore, similar research was also carried out by Rachel Grievea, Evita Marchb, and Jarrah Watkinson in 2020, which showed that the dimensions of authenticity on social media Facebook were influenced by narcissism. The higher the level of narcissism is, the lower self-...
esteem is. Therefore, individuals need the authenticity of their self-image to support their self-presentation [26]. Research conducted by Seoyeon Hong, Rosie M. Jahng, and Namyeon Lee, Kevin R in 2020 found another result (still related to authenticity), that individual Instagram users often use interesting filters to improve their presentation [27].

However, this study has different results from previous studies mentioned. Instead of the authenticity dimension, the positivity dimension of the self-presentation variable is the most often appears in the subject. This can be seen in Table 3, where the average value for the positivity dimension is the highest, which is 41.286. The result is also supported by the result of subjects’ categorization of which 32 subjects have high positivity. Next, the result also shows that the virtue aspect of the self-esteem variable is the one that Instagram users often look for. Of the four self-esteem aspects, virtue has the highest average value, which is 37.465. This result is supported by the results of subjects’ categorization, of which 65 subjects have high virtue value. The results of these two variables show that the subjects (Instagram users) tend to perform a positive presentation in search of virtue in themselves.

In using Instagram, the majority of Instagram users perform a positive presentation about themselves. Especially on Instagram, they can engage themselves selectively and also build a positive self-presentation. This is relatively easy to do thanks to today’s technology, such as the ability to edit and maintain asynchrony [28]. Individuals who are looking for a positive impression will usually build many friendships, post important day celebrations or important events, and try their best to form their profile as best as possible [18]. They often show positive self-presentation to people they do not know or people outside their inner circle, while to those closest to them, individuals will be more confident in presenting their true self [29]. Through Instagram, users can build good personal relationships, especially with other users who they don't really know [15].

Showing a positive self-presentation can also provide a touch of expression of one's identity [30]. It is related to virtue in one's self-esteem. The more positive the impression the individual has, the better the morals and norms (virtues) they own in the eyes of other users [31]. Kwan, Kuang, and Hui in their study stated that one of the main sources of self-esteem is virtue [32]. Through virtue, Instagram users can get more happiness and see themselves more positively [33]. Individuals who have a positive perception about themselves will ultimately have high self-esteem [32]. This study has limitations since it only examines online self-presentation and self-esteem. This does not provide a broader knowledge. Future research will need to examine self-presentation and self-esteem in person to demonstrate comparative results (in person and online).

4 Conclusion

An individual who shows himself/herself on Instagram all the time is considered to have made a self-presentation. Self-presentation on social media, especially Instagram, is related to self-esteem. Self-presentation has five dimensions, namely the breadth of information, depth of information, positivity, authenticity, and intentionality. From these five dimensions, it is found that the positivity dimension is the way individuals often present themselves on Instagram. There are also self-esteem aspects, namely power, significance, virtue, and ability. From the four self-esteem aspects, virtue is the aspect that Instagram users want to show the most. From these findings, it can be seen and concluded that individuals more often post something positive about themselves on Instagram to be considered having behaviour. Future research is expected
to examine self-presentation and individual self-esteem offline (not online via social media), to compare whether the results obtained remain the same or different from online self-presentation and online self-esteem.

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References


Physical Factors Determining Women's Football

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Abstract. The physical factor in women's soccer is very important for the players who play it. Having a good physique for soccer is very important because having a good physique can demonstrate technical skills and tactics in the game of football. The training done by women's soccer is very different from men's soccer. Coaches need to provide the best exercises to be able to develop physically for players. There are several physical biomotors that need to be developed in order to get a good physical. To find out the dominant physical can be known by looking at the forms of training provided by the trainer. The process of training by the coach is a development of techniques, tactics, mental as well as physical for female soccer players. The training models provided by the coach are also supporting factors for female soccer players. Knowing the physical factors determining women's soccer achievements are expected to be able to contribute to the development of other training models that can truly develop the physical female soccer players.

Keywords: Women’s soccer, Physical, Training

1 Introduction

Football is a game of football, football is contested between players who intend to put the ball in to the opponent's goal and defend the goal themselves do not get included. "Football is a team game, each squad consists of eleven players, players using legs, body and head except goalkeepers may use all limbs in the penalty area" [16]. In football there are several divisions: goalkeeper, defender, midfielder, and striker. As with other team sports, football also relies on cooperation or inmpakmpakkan in its team to win games. Today in the game of football, in addition to techniques, tactics and mental physical condition also plays a very important role in the effort to jump into the professional world, because physical condition is considered as a basic factor for a football athlete to be able to compete well. Physical condition training plays a very important role in athlete training programs, especially achievement sports athletes. This is because physical condition training refers to a systematic, planned, and progressive exercise program aimed at improving the functional capabilities of the entire body system to improve athletes' achievements.

Modern football is a tight and difficult competition. Footballers now have to live faster, stronger, and more agile, so that the standard of physical condition of footballers also continues to improve. "Physical condition is the ability to face the physical demands of a sport to perform optimally" [1]. Physical condition training is important to improve the condition of football athletes. The goal of physical training in football is to enable players to face the demands of the game as well as enable efficiency of the use of technical and tactical competencies throughout the game. The physical condition must be noticed by a coach both in regular training and in the face of championships so that a coach can know the physical condition of the player.
to physical condition training becomes very important to provide weight training, physical conditions can be developed optimally. But the reality is that many coaches ignore the physical condition component of coaching football athletes, resulting in a decrease in the quality of the physical condition of the athletes making it difficult to achieve maximum achievement.

2 Results and Discussion

Football is a fairly societal sport and is loved by all walks of life from children to the elderly. Many championships have been held in various world events such as the Champions League, World Cup, European Cup and so on. From these football events are able to hypnotize all the people in the world to watch football games. Many European countries use the game of football as a National sport. Batty [3] says that: Football is a simple game, and the secret to a good game of football is to do simple things as best you can. Another definition of football is the game of kicking a ball contested by players from two different elevens with the intention of putting the ball in the opponent's goal and defending the goal itself not to get the ball [6]. "The game of football is an 11-on-11 game led by a referee and assisted by two line judges, the game takes place on a field that is 100-110 meters long and 64-75 meters wide, with a 12 centimeter field line and equipped with two Gawahs that are 2.44 meters high and 7.32 meters wide. The ball used was from the skin. A 2x45-minute game time consisting of two rounds and a 15-minute break, for a half-game system that only lasts 2 x 45 minutes without any additional time, for matches that use the knockout system, if the score is still the same after the match time of 2x45 minutes is exhausted, there is an additional time of 2x15 minutes, and if the score is still the same, then a penalty shootout is made. The idea of the game of football itself is to put the ball in the opponent's goal as much as possible and defend our goal from the entry of the opponent's ball" [13].

From some of the above understanding of football can be drawn the conclusion that football is a game between 2 (two) squads consisting of 11 (eleven) players and played with feet, except goalkeepers, may use their hands in the penalty box area. Each team tries to put the ball in to the opponent's goal as much as possible and keep the goal from being entered by the opponent's attack. In football training activities are very important in helping to improve the ability to do sports activities. To enable improved achievement, exercise must be guided by certain theories and principles of exercise. Without doing regular exercise, it is impossible for athletes to achieve the expected achievements. According to Bompa & Buzzichelli [4] that exercise is usually defined as a systematic process that is carried out repeatedly, progressively, and has the aim of improving physical appearance. According to Scheunemann [15] training in the sport of football is to have four factors or elements that should be considered in fostering or coaching football in order for players to gain good skills. Four aspects of training that need to be carefully observed and trained by athletes, namely physicality, technique, tactics, and soul togetherness. The principles of exercise will support efforts in improving the quality of an exercise. According to Sukadiyanto [17], the principles that can be entirely implemented as guidelines for the purpose of the exercise are achieved in one face-to-face, among others: (1) the principle of readiness, (2) individual principles, (3) the principle of adaptation, (4) the principle of overload, (5) the progressive principle (improvement), (6) the principle of specification (specificity), (7) the principle of variation, (8) the principle of heating and cooling, (9) the principle of long-term exercise, (10) the opposite principle, (11) the principle of not exaggerating, (12) the thematic principle. The principles of exercise are for sports in general, but football training especially for
young people should pay more attention to the factors that can result in injury, because in young people are very susceptible to injury. This is according to the report Verburgh, Scherder, van Lange, & Oosterlaan [19]. Children who play football may incur injury as a result. The damage can be due directly to physical contact during play or may be attributable to training. Differences between children and adults in physical and physiological characteristics explain why children may be the more vulnerable to injury. The factors that contribute to this greater risk in children include a larger surface area relative to mass, growing cartilage which can be easily stressed, and the fact that children have not yet gained the complex motor skills or experience associated with injury avoidance. There are several exercise factors or variables in the form of exercise size or dosage. According to Ambarukmi [2] the size or dosage of such exercises includes FITTE (Frequency, intensity, time, type, and enjoyment).

The goal of the exercise objective according to Harsono [7] is, "to assist the athlete in improving his skills and achievements to the fullest." To achieve this, there are four aspects that athletes need to be carefully considered and trained in: (a) physical exercise, (b) technical exercises, (c) tactical exercises, and (d) mental exercises. On the physical factors in doing exercises in football players there are several determining physical factors that are trained during training. Physical exercise in football, especially in women's football, has many components, of which the coach makes a schedule-based training program that includes several physical factors. The physical condition components in women's football consist of components such as muscle strength, muscle endurance, general endurance, flexibility, speed, coordination, agility, and balance.

Developing or improving physical conditions in football practice means developing or improving the physical abilities that footballers have. Physical fitness includes two components, namely physical fitness and motor fitness. Physical freshness consists of muscle strength, muscle endurance, respiratory-circulatory endurance, and flexibility. While the components of motion freshness consist of speed, coordination, agility, muscle explosiveness, and balance. Physical condition training means athletes are given exercises of their physical freshness components and the components of their motion freshness. Components of physical condition consist of muscle strength, muscle endurance, circulatory and respiratory endurance, as well as joint flexibility. While that includes motor fitness consists of; speed, coordination, agility, muscle explosiveness, and balance. Thus each athlete should be trained the components of his or her physical condition with an exercise program that is organized in accordance with the principles of exercise. Furthermore Harsono [7] suggested that, "Before being parachuted into the arena an athlete must already be in a good physical condition and fitness level to deal with the intensity of work and all sorts of stress that he will face in the match.

The women's soccer game, having prominent components of physical condition is strength, power, speed of motion, agility, and general endurance (aerobic ability). Because the character of the game of women's football is to make quick and long movements, in order for the movements made in women's football such as kicking, herding, throwing, then women's football players must have good physical condition. Therefore the game of women's football when viewed from the use of its work system physiologically is a combination of work and aerobics. The following are some of the components of physical condition required in women's football.

2.1 Muscle Strength Limbs

Strength is the ability of a muscle or group of muscles to cope with weights or prisoners [11]. While according to Harsono [7] states that strength is a very important component to improve overall physical condition. This is because: (1) strength is the driving force of each
activity, (2) strength plays an important role in protecting athletes/people from possible injuries, and (3) strength can support the ability of more efficient physical conditions, although many sports activities require more agility, flexibility, speed, explosiveness and so on.

But these factors are still combined with strength factors in order to get good results. One of the factors that plays a role in the achievement of kicks is the physical condition of the muscle strength of the limbs. In other words, to achieve a kick there must be an element of physical condition especially the strength of the limb muscles used to lift the thighs and resist at the time of kicking the ball. The muscle strength of a person's limbs plays an important role in increasing the frequency of a person's running steps, since the frequency of steps is the multiplication between the strength of the muscles of the limbs and the speed of the muscles in stepping. This limb muscle strength is used when running dribbling, and kicking the ball, with strong limb muscles then the kick will get stronger.

A female footballer must have strong legs, strong ankles, strong knees and strong limbs in order to carry a heavy weight. In achieving the speed of the ball kick, the muscle strength of the limbs is very influential. Because muscle is a supporting factor in a person's ability to step foot. Thus, a person who has good muscle strength can do and shoulder the heavy work for a long time. People who are physically fresh will have strong muscles and are able to work efficiently. In football this muscle strength is necessary to overcome the burdens that are present at the time of play, and the application is more to the carrying capacity for the physical condition of the power.

2.2 Speed

Speed is a fundamental physical component, so speed is the deciding factor in sports such as short-distance running numbers, swimming, martial arts, and gaming sports. Speed is the ability to perform similar movements in a row in the shortest time or the ability to travel a short distance. According to Sukadiyanto, speed not only involves the entire speed of the body, but involves the reaction time performed by an athlete against a stimulus. This ability creates a shorter distance to move the body. Speed not only means moving the whole body quickly, but it can also move the limbs in the shortest possible time. In sprint sprints the speed of his run is determined by the successive movements of the legs performed quickly, the speed of kicking the ball is determined by the short limbs in the distance of kicking motion.

2.3 Agility

Agility is one of the physical components that is widely used in sports. According to Ismaryati, agility is the ability to change the direction and position of the body or its parts quickly and precisely. "characteristics of agility are changes in the direction of running, changes in body position, and changes in the direction of body parts". Sajoto defines agility as the ability to change direction in a particular arena. A person who is able to change direction from position to different position in high speed with good motion coordination means his agility is quite high. While according to Nash, Sproule, & Horton, states that agility is used directly to coordinate multiple movements, make it easier to practice high technique, movement can be efficient and effective, facilitate orientation and anticipation of opponents and competing environments, avoid injuries.

The agility performed by athletes or football athletes when training or competing depends also by the ability to coordinate the body's movement system with response to the situation and conditions faced. Agility is determined by the speed factor of reacting, the ability to control the
situation and being able to control movement suddenly. Agility is one component of physical condition that is widely used in sports, agility is an element of mobility ability that a football athlete must have, because with high agility athletes can save energy in game time. Agility is also necessary in freeing yourself from the control of the opponent by dribbling, passing the opponent by attacking to create a goal that will lead to victory. An athlete who is less agile in making a move will find it difficult to avoid individual touches that can result in individual mistakes.

2.4 Durability

According to Nash et al. [12] endurance is the ability of a person's organism to fight fatigue that arises while carrying out activities for a long time. If a person is able to move a certain group of muscles continuously for a long time, that leads to a good heart, circulation and breathing. The higher a person's level of endurance the higher his physical freshness. In this sport of endurance football is necessary to maintain the condition of the body physically in order to be able to carry out the game for a long time.

According to Sukadiyanto [18], the understanding of endurance reviewed from muscle work is the ability to work muscles or groups within a certain period of time, while the understanding of endurance of the energy system is the ability to work the organs of the body within a certain period of time.

2.5 Power

Power is a combination of muscle strength and speed. If two athletes can lift barbels weighing 50 kg, but one can lift faster than the other then he is said to have better power than the one who lifts it slowly. Power is the ability of muscles to exercise maximum strength in a very fast time. Thus because power is a combination of strength and speed then to develop power, female football players must develop their strength and speed. Therefore if a female footballer does not have a good kick or does not have a good throw of the ball then the player is she does not have the perfect power. To increase power in female football athletes can be developed through the addition of strength and speed exercises on the arms or limbs.

2.6 Balance

Balance according to Check & Schutt [5], is the ability to maintain our neuromuscular system in static conditions, or control the neuromuscular system in an efficient position or attitude as we move. While according to Harsono [7], balance is easy for people to control and maintain the position of the body. Furthermore according to Michael [10], balance is "the ability of the individual to control organic equipment neuromuscularly".

In sports activities there are two kinds of balances, namely static balance and dynamic balance. These two forms of balance are often needed in sports. To develop and improve the agility of athletes, one of them must first develop the body balance, especially dynamic balance. A good dynamic balance will be able to prevent a person from falling, if the movement pattern changes unexpectedly.
2.7 Coordination

Coordination is a very complex biomotor capability. Coordination is closely related to the speed, strength, durability, and flexibility of joints, and is a very important component for learning and developing techniques and tactics. Coordination is important in dealing with unfamiliar situations and lingkungan, such as new pitches, sudden changes in the field of matches, equipment, weather, lights and so on. Coordination can help in quick adjustment efforts with new situations and conditions. Whether or not a person's motion coordination can be reflected in his ability to perform a movement smoothly, precisely, and efficiently. Athletes who have good coordination are not only able to perform a skill perfectly, but also easily and quickly can perform smelly skills, so that the movement becomes efficient.

3 Conclusion

Women's football is a growing sport in Indonesia, the development of women's football in Indonesia is characterized by the number of women's soccer clubs and women's soccer competitions. As the organizer and person in charge of women's football has made every effort to manage women's football in order to excel. Women's football in order to achieve so it is necessary to prepare by doing training vigorously. Practice in football in addition to mastering techniques, tactics and mentally also to build the physicality of the player. The physical factor of the player is very important in the sport of football in achieving achievement, according to Husein [8] saying the physical factor is very important for each player to have so that the player can show a good performance when competing.

References


Mitigation of Covid-19 Outbreak in Indonesian Poetry

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Abstract. This research aims to describe knowledge form of outbreak disaster mitigation in Indonesian poetry. This research uses a descriptive qualitative approach through phenomenological hermeneutics of Paul Ricoeur as a meaning interpreter. Epidemiological study is used because the objectives of investigating outbreak among society is to control and prevent the recurrence of the outbreak. The Michel Foucault's archaeological study of knowledge is also used as an instrument to reveal knowledge in poetry. It is used because the language in poetry becomes an instrument for articulating power when the power itself has to take the knowledge form. The reason is because the knowledge is defined in the form of the construction of discursus statements, including discursus about covid-19 outbreak mitigation constructed in Indonesian poetry as knowledge. The data of this research are couplets, typography, diction, images, and concrete word related to the mitigation efforts of covid-19 outbreak disaster found in poetry. The source of this research is 50 poetry by 50 Indonesian authors themed around Covid-19 and published in national newspapers, online media, and poetry anthology book published since January to August 2020. The results of this research shows four types of outbreak mitigation knowledge in poetry, namely agent source control, cutting a link in the chain of transmission, host power-increase, and primordial prevention.

Keywords: Outbreak mitigation, covid-19, Indonesian poetry, construction of knowledge, the archaeology of knowledge

1 Introduction

During the current Covid-19 outbreak, the government around the world began to focus on health policies, as well as the scientists’ research focuses on how to handle the Covid-19 [1]. The global impact which affects human life during this Covid-19 outbreak also becomes a concern to poets in Indonesia. Recorded from January to August 2020, there were many poems which depicted the Covid-19 outbreak situation published in mass media such as newspapers, online media, and anthologies.

The Covid-19 outbreak inspired Indonesian poets in producing their poems. This can be seen in the work of new to senior poets who are quite famous in Indonesia, such as Sutardji Calzoum Bachri who wrote a poem entitled Satu (One), Mustofa Bisri or Gus Mus with his poem entitled Sabda Bumi (Word of Earth), Triyanto Triwikromo with his poem entitled Hans Dita’sikiran Sebagai Apakah Maut (As What Death Should be Interpreted), and Putu Fajar Arcana with his poem entitled Nyanyian Cinta Orang-Orang Pulang (Love Song of The One Coming Home) compiled in a book entitled Peradaban Baru Corona (A New Corona Civilization) [2]. Not only books, some poems about Covid-19 are also often found in online media such as those compiled in cakradunia.co written by Denny JA [3] entitled Tanggung
Real-life depictions are seen in Indonesian poems written during the Covid-19 outbreak. The poems commonly tell about how the societies mitigate this deadly pandemic like doing some efforts to survive by keeping physical distancing and spraying disinfectants. Some works also often highlight the humans’ relationship during the pandemic in which they cannot meet face-to-face and it causes some humanity issues faced by the characters. Several humanity issues due to Covid-19 appear in Gus Mus’s poem entitled Sabda Bumi (Word of Earth).

The poem entitled Sabda Bumi (Word of Earth) explains the relationship between natural conditions and the deeds of mankind. It means that the impacts of the Covid-19 outbreak which has devastated the economic and health sectors are a natural warning so that people as khilafah (Arabic: human as the leader on earth) are not busy damaging nature for the sake of earthly pleasures. This pandemic brings impacts that requires people to stay at home to prevent the spread of the virus. The condition of this outbreak seems to suggest humans to take care of the earth by blessing all creatures of Allah. By doing so, disasters can be solved because the world runs in a balanced way between humans and the environment.

Besides completely entertaining, literary works can also be used to teach something using entertainment system through the authors’ thought and diction they created [5]. By reading pandemic-themed Indonesian poems, the readers are indirectly taught something about the concept of knowledge displayed in the narration told in the verses of poems. During the outbreak, poems are expected to teach something to the readers through the discourse constructed by the writers. Some of the built discourse are about controlling and preventing mitigation of the Covid-19 outbreak described in Indonesian poems.

Foucault in his theory of archaeological knowledge states that through discourse, the will to know is arranged in knowledge [6]. Language in poems becomes a tool to articulate power when it has to take the knowledge form because knowledge is arranged in the form of discursive statements construction [7]. Power-knowledge is concentrated in the truth of scientific questions.

Therefore, the writer tries to connect, control, and organize the discourse of the pandemic in order to make it suitable with the scientific demands, so it can be applied by the societies. Okky Madasari [8] explains that Foucault rejected the classification of various discourses (literature, politics, philosophy, religion, history, fiction, and so on). For Foucault, they are all one: a discourse. Thus, in this study, literary works, especially poems that deal with pandemic will be treated as a discourse of knowledge and the facts of the discourse itself.

Literary studies nowadays are highly interdisciplinary, multidisciplinary, and transdisciplinary. This happens because monodisciplinary literary studies in some cases cannot provide comprehensive answers dealing with complex problems of the societies. Literary studies from various perspectives are needed by literary researchers so that they can relate literature with other multidisciplinary knowledge, therefore literary research can provide more comprehensive and useful results to the societies [9].

One of the interdisciplinary studies that can be connected to literary studies is epidemiological studies. Reviewing literary works, especially poems using epidemiological studies is expected to be able to reveal the discourse of information on pandemic depicted in Indonesian poems from the process of knowledge construction. Through the epidemiological studies in poems, it is expected that the information in poems can be used as a reference to handle the pandemic. Two of the ways to handle the pandemic is through combat and prevention which is commonly known as mitigation of the Covid-19 outbreak.
Soemirat [10] explains that in controlling an outbreak, determinant factors can be used in some ways, namely controlling the source of agents like treating the sufferers, isolating the sufferers, controlling animal and physical reservoirs, and also detecting the cases actively. Breaking the chain of transmission is also important to control, starting from paying attention to individual hygiene, sterilization, and travel prevention. Moreover, the enhancement of the individual immune system is also important, such as immunization, environmental sanitation, chemical prevention, and adequate nutrition.

On the other hand, outbreak prevention can be done through four preventive ways, i.e. primordial, primary, secondary, and tertiary prevention [10]. Primordial prevention starts by preventing pollution and maintaining diet. Primary prevention is done by preventing the recurrence of the disease and consuming supplement. Secondary prevention is done by monitoring periodically and screening massively or gradually, and tertiary prevention is done by anticipating permanent defects due to the outbreak.

As a part of epidemiological studies, mitigation describes human interaction in controlling and preventing the Covid-19 outbreak [11]. Therefore, when the mitigation is associated with literature, epidemiological studies will be used to see the pandemic knowledge written in Indonesian poems. One of the objectives of epidemiological studies that study outbreak among the societies is to control and prevent the recurrence of the outbreak [10]. Thus, the relation or ‘matchmaking’ between epidemiological studies and literary studies can be called epidemiological literary studies.

There has been no research that offers an epidemiological approach to the outbreak mitigation, especially Covid-19 for the study of literary works, especially Indonesian poems as well as studies using archaeological knowledge. Therefore, seeing the tendency of Indonesian poems published during the pandemic to reveal a lot of knowledge about Covid-19, especially related to the outbreak mitigation. This study aims to find out the construction of knowledge about outbreak mitigation found in Indonesian poems.

2 Method

This research uses a descriptive qualitative approach through the phenomenological hermeneutics of Paul Ricoeur as an interpreter in understanding meaning. In Hermeneutics, there is an attempt to graft hermeneutics on phenomenology [6]. There are three elements in phenomenological hermeneutics, i.e. first; reflection is understood as a call for anyone to do an action, second; hermeneutics teaches that there is no self-understanding without being around the signs, symbols, and texts, and third; Husserl phenomenology imbued with dreams of knowledge radically characterized by intensionalitas (consciousness is always aware of something and phenomenon which appear to the subject).

Epidemiological and archaeological studies of knowledge are used as instruments in interpreting the text discourse related to covid-19 outbreak mitigation that emphasize the control and prevention of outbreaks that construct knowledge in Indonesian poems. Foucault [12] states that in the documents and monuments including the literary work, history tries to collect traces left by humans in the past. These traces are as scattered knowledge that have to be gathered. From those traces, the Foucault archaeological knowledge was started by collecting the scattered elements, sorting them so that they are relevant to each other, then they are placed in relation so there will be a totality. The discursus and the documents produced will be analyzed, described, and organized [13].
The results of the descriptive qualitative approach are description data in the form of written or oral words about an observed state or symptom. This approach is closely related to the state of the research subjects that appears as it is to make descriptions, images, or systematic, actual, and accurate paintings of the phenomenon of outbreak disaster mitigation forms in Indonesian poems. The data of this research is texts in the form of excerpts of poems which construct the forms of outbreak disaster mitigation. The data source of this research is in the form of poems written by Indonesian poets published in anthologies and online mass media in January 2020 to August 2020.

3 Result and Discussion

The results showed that there are five knowledge constructions of mitigation outbreak in Indonesian poems, i.e. through agent source control, break the chain of transmission, host power increase, primordial prevention, and tertiary prevention.

3.1 Agent source control

The control of the agent source is an attempt to make patients who are exposed to the disease can be healthy soon and to try to eliminate the symptoms and the virus from the patient's body as well as not to infect the virus to others. In the outbreak disaster mitigation, the agent source control on epidemiological studies tries to control the source of the disease in order to make the patient’s body is one hundred percent free from the virus [10]. The agent source control found in Indonesian poems is displayed through character’s action in treating the sufferers, isolating the sufferers, and performing physical reservoir control.

Treating the sufferers in mitigation of the Covid-19 outbreak is an effort to prevent the outbreak to make those who are infected with the virus receive medical treatment to relieve symptoms and for those who had severe pain be referred to the hospital. In Indonesian poems, the treatment of the sufferers is represented in the character’s action under the doctor’s treatment during the outbreak. The character’s action under the doctor’s treatment found in literary works can be seen in the excerpt of an old poem in the form of pantun (Indonesian verse consisting of four lines rhyming abab of which the first two present a figurative suggestion of what is more directly and clearly stated in the final lines) entitled Corona Bisa Sembuh (Corona Can be Cured) by Achmad Fachrodji below.

Tembang asmaradana jenis mocopat (Mocopat type Tembang asmaradana)
Mendengar gambuh sangatlah nikmat (Hearing the gambuh is very melodious)
Sakit corona memanglah berat (Suffer from corona is indeed hard)
Bisa sembuh tetaplah semangat (Can be cured keep up the spirit)

The excerpt of the pantun above explains that through an intensive treatment carried out by professional doctors, Covid-19 sufferers can be cured. Thus, the fulfillment of doctors in medical efforts is very important in controlling the Covid-19 outbreak. The Pantun entitled Corona Bisa Sembuh (Corona Can be Cured) constructs epidemiological knowledge about mitigation of Covid-19 outbreak. The outbreak mitigation is carried out by controlling the source of agents by treating the sufferers through healing efforts from doctors and the medics.
The treatment from doctors and the medics is important to provide certain therapies as an effort to relieve the sufferer’s pain and the virus can be reduced and removed [14].

Isolating the sufferers is also an effort to control the source of agents in mitigation of the Covid-19 outbreak in Indonesian poems. Isolation of Covid-19 sufferers is an effort to separate people infected with the virus from others. In Indonesian poems, the isolation of sufferers is displayed through the action of character’s isolation done in the hospital. The effort to control the pandemic through isolation in the hospital can be seen in the excerpt of a poem entitled Nyanyian Cinta Orang-Orang Pulang (Love Song of The One Coming Home) by Putu Fajar Arcana as follows.

Can,
kalau saja kita sempat bertemu (If only we’d met)
Mungkin akan kucucitakan saat-saat khirku (Maybe I’ll tell you my last moments)
Ruang isolasi itu tak cukup buat menampung (That isolation room wasn’t enough to accommodate)
kerinduanku yang dalam kepada anak-anak, (My deep longing for children)
kepada segala mimpi kita tentang kemerdekaan (to all our dreams of independence)
burung-burung di pohon-pohon tua rumah kita. (the birds in the old trees of our house.)

The excerpt of the poem above describes the character in the poem who suffered from the Covid-19 outbreak who finally had to be isolated in an isolation room in the hospital. It was described as a cramped room that he thought it was not enough to hold back the longing with the family. Isolation is done so that the sufferer does not have physical contact with others which can cause the transmission of the virus. The poem entitled Nyanyian Cinta Orang-Orang Pulang (Love Song of the One Coming Home) constructs the epidemiological knowledge about Covid-19 outbreak mitigation. The outbreak mitigation is carried out by controlling the source of agents by isolating the sufferers in hospitals. Technically, hospitals with good ventilation and adequate isolation places can also be used as isolation places to prevent the transmission of the virus [15].

Physical reservoir control is also an effort to control the source of agents which is done to minimize human encounters because it is considered that the virus can be transmitted to each other. In Indonesian poems, physical reservoir control is represented in various character’s action depicting the mitigation of the Covid-19 outbreak, including the efforts to keep physical distancing, convene online press conferences, and implement regulations in the form of prohibitions. Some of the prohibitions are bans on going to mosques, assembling, shaking hands, hugging, making visit of condolence, religious activities, and accepting guests. One of the character’s actions that describes physical reservoir control is the effort to keep physical distancing seen in the poem entitled Satu (One) by Sutardji Calzoum Bachri as follows.

daing kita satu arwah kita satu (Our flesh is one our spirit is one)
walaupun jauh (even though each other is far away)
yang tertusuk padamu berdarah padaku (The one impales you on you bleeds on me)

The excerpt of the poem above explains although one is far away from each other due to keeping physical distancing during the Covid-19 outbreak, the soul of the one who is far away from each other still can feel the closeness. Happiness seems to be able to feel both pleasure and pain. The excerpt of the poem entitled Satu (One) above constructs epidemiological knowledge on mitigation of Covid-19 outbreak. The outbreak mitigation is carried out by controlling agent sources through physical reservoir control in the form of keeping physical distancing. Keeping
physical distancing is implemented to minimize the transmission of the virus through air. The regulation of keeping physical distancing has been implemented in every countries to reduce the number of virus reproduction [16].

3.2 Break the chain of transmission

Outbreak mitigation done by breaking the chain of transmission in this research is various discourse that construct Indonesian poems related to efforts to improve the environment in order to stop the transmission of the virus by minimizing its carrier. Breaking the chain of the transmission is done to improve the quality of the environment so that it does not become a vehicle or a habitat for vectors of disease and to break the transmission of virus [10]. Breaking the chain of transmission in Indonesian poems is displayed in the form of character’s action in implementing individual hygiene efforts, spraying disinfectant and having sterilization, as well as preventing travel. Individual hygiene is an effort to mitigate the outbreak to break the chain of transmission by improving personal hygiene in order to avoid viruses which are attached to the body. In Indonesian poems, individual hygiene is represented in the character’s action through washing hands. Washing hands is done during the Covid-19 outbreak to clean up the possibility of germs that are accidentally touched or attached to the hands while doing activities. Washing hands is shown in an excerpt of poem entitled Milenial Korona (Millennial Corona) by Akhlis Suryapati below.

sekarang tutup mulutmu  
(ja ngan kerumun bersatu)  
jaga jarak  
cuci tangan  
korona tak kenal janji tipu daya
(Now cover your mouth)  
(Don’t be at crowd)  
(Keep your distance)  
(wash your hands)  
(Corona knows no promise of deceit)

The excerpt above explains that to anticipate the virus attached to the palm of the hand and then accidentally touch the face that can cause the virus to be inhaled through nose or mouth, the habit of washing hands is important to do. By washing hands, it is expected that the virus on the hands can die off and cannot be the cause of transmission. The poem entitled Millenial Korona (Millennial Corona) constructs epidemiological knowledge about mitigation of Covid-19 outbreak. Outbreak mitigation is carried out by breaking the chain of transmission through individual hygiene in the form of hand washing habits. Although washing hands with soap or hand sanitizer is important, it is also important to select hand wash product because it can also have an impact to the skin health, especially those made from alcohol which potentially can cause irritation [17].

Disinfection and sterilization are also efforts to break the chain of transmission. Disinfection and sterilization are also efforts to maintain cleanliness by killing the virus before it infects humans. The effort that can be done during the Covid-19 outbreak by disinfection and sterilization is spraying rooms as well as certain points that may be exposed to the virus due to human activities using liquid disinfectant. In Indonesian poems, disinfection and sterilization efforts appear in two forms of character’s actions, including during the Covid-19 corpses handling and settlements spraying. One of the actions of the character is spraying settlements seen in the poem entitled Dalam Perang dan Damai (In War and Peace) by Adiri Darmadi Woko as follows.
Dalam kedamaian (In peace)
di antara yang berjarak sedepa (Among I depa in distance)
dan masih sempat bercinta. (And still have time to make love)
Tetapi menghadapi Corona (But facing Corona)
semua tanpa ampuh semata (all without forgiveness)
membuatmu berjarak disinfektan (make you just distanced with disinfectants)

The excerpt of the poem above explains that in facing the Covid-19, people are ready to keep their distance and spray disinfectant liquid. Spraying disinfectant is done to kill the viruses around humans. This is done so that there is no spread of virus. The poem entitled Dalam Perang dan Damai (In War and Peace) constructs epidemiological knowledge on mitigation of Covid-19 outbreak. The outbreak mitigation is done by breaking the chain of transmission through disinfection or sterilization by spraying disinfectant liquid. The use of disinfectant liquid is important to prevent transmission, especially for the medics in handling Covid-19 corpses. Therefore, the strict technical rules related to security are important for the safety of the medics as well as the societies [18].

In addition to individual hygiene and disinfection efforts, the efforts to prevent travel are also made to break the chain of transmission. Preventing travel is done by trying to stay at home because we do not know those who have been exposed to the virus and potentially transmit the virus to others. In Indonesian poems, efforts to prevent travel are presented in seven types of the character’s actions, including learn from home, work from home, implement Pembatasan Sosial Berskala Besar (a Large-Scale Social Restriction), lockdown, stay at home, homecoming ban, and flight cancellation. One of the efforts to prevent travel is staying at home done by the character appears in the poem entitled Rumah (Home) by Iswadi Pratama below.

Jangan pergilah, (Don't go mom,)
perkenankan sepasang kakimu istirahat (Let your old feet rest)
di rumah yang tak pernah mendengar keluh lelah. (in the house that hears the despair)
Telah kusiapkan secangkir teh, sepiring penganan, dan (I’ve prepared a cup of tea, a plate of food, and)
beberapa kitab dari mana kau meraih tabah, mereguk mahabah. (some books from which you reach the patience, feel the love)

The excerpt of the poem above explains that during the Covid-19 outbreak, choosing to stay at home is the best way to avoid the transmission of the virus. So, the author is seen in his poem advising his mother to stay at home by prohibiting her from going anywhere so that she will stay healthy and won’t get infected with the virus outside the house. The poem entitled Rumah (Home) constructs epidemiological knowledge about mitigation of Covid-19 outbreak.

3.3 Increase the host power

Increasing the host power is an effort in the outbreak mitigation to strengthen the immune system in facing the risk of virus that can potentially attack human’s body. In this case, the host power includes the degree of sensitivity, immunity and tolerance to the virus, as well as the nutrition status, knowledge, education, and human behavior in facing the source of the disease.
In Indonesian poems, increasing the host power is presented in three forms of actions, including the efforts of chemical prevention, protection, and nutrition.

Chemical prevention is an effort to increase the host power through the use of materials containing chemical compounds to prevent the spread of the Corona virus toward individuals as well as societies. The chemical prevention is done to kill the attached germs and viruses before infecting people due to the fact that by using the chemicals, the viruses can die off. In Indonesian poems, the chemical prevention presented in the character’s action by using hand sanitizer in their daily lives. The use of handsanitizer can be seen in the excerpt of a poem entitled Taun Corona, Sebuah Cerita (A year of Corona, A Story) by Rida K. Liamsi as follows.

Dingin cairan handsanitizer (The cold liquid of hand sanitizer)
menelubos jaripada pagi hari (break through the fingers in the morning)
Sengit alkohol di balik masker (The odor of alcohol behind the mask)
Menaksir harapan sebelum pergi (Thinking of hopes before leaving)
Selamat pagi, masih adakah lagi secangkir kopi? (Good morning, is there another cup of coffee?)

The excerpt of the poem above explains that the prevention of virus transmission is done by the use of chemicals such as alcohol which is contained in hand sanitizer used to be applied on hands. The poem entitled Taun Corona, Sebuah Cerita (A year of Corona, A Story) constructs epidemiological knowledge about covid-19 outbreak mitigation. The outbreak mitigation is done by increasing the host power through chemical prevention by using hand sanitizers. The use of hand sanitizer or chemical antiseptic to prevent the transmission of Covid-19 is effective if the use of it is appropriate. Further education is needed by the public in order to be a preventive ways against the spread related to Covid-19.

Protection efforts are also represented in Indonesian poems constructed by knowledge to break the chain of Covid-19 transmission. Protection is a human effort dealing with the Covid-19 virus by using Alat Pelindung Diri (Personal Protective Equipment) such as using hazmat suit and masks to prevent the virus from attaching to the body so that the virus cannot be inhaled into lungs that can cause transmission. In Indonesian poems, protection is represented in two character’s actions displayed in the verses of poems, including the action of wearing hazmat suit and masks. One of the protections is the use of masks appears in the poem entitled Catatan Kecil (Little Notes) by Asril Koto below.

Di 2020, tanpa tanggal dan bulan (In 2020, with no date and month)
Ahli wabah itu (The pandemic experts)
Menganjurkan kita membusu (Encourage us to be mute)
Mulut dan hidung diperban (Mouth and nose are bandaged)

The excerpt of the poem above explains that the pandemic experts or epidemiologists have advocated to wear a mask that is used as a mean of covering the mouth and nose. This mask will inhibit the virus from entering the human body, so the Corona virus can be avoided. The poem entitled Catatan Kecil (Little Notes) constructs epidemiological knowledge on mitigation of The Covid-19 outbreak. The outbreak mitigation is done by increasing the host power through self protection by wearing masks. The use of masks is important, especially when someone wants to do activities in public places and potentially cause crowds. Due to the importance of
wearing masks, there are sanctions implemented in some countries for people who do not wear masks in public places [21].

In addition to chemical prevention and protection, nutrition fulfillment efforts are also important to increase the host power in the Covid-19 outbreak mitigation. Nutrition fulfillment is an effort to fulfill nutritious food to boost the immune system, so it won’t be easily infected with the Covid-19 outbreak. In Indonesian poems, the fulfillment of nutrition is represented in two character’s actions, including efforts to fulfill nutritious foods and an attempt to boost the immune system. One of the efforts to fulfill nutrition is the fulfillment of nutritious food which can be seen in the poem entitled Jaga-jaga (Just in Case) karya Arbi Tanjung below.

| Air panas, jahe, kunyit, serai | (Hot water, ginger, turmeric, lemongrass) |
| Jaga mulut | (Keep your mouth) |
| Jaga hidung | (Keep your nose) |
| Jaga tangan | (Keep your hands) |
| Jaga kaki | (Keep your feet) |
| Jaga air | (Keep the water) |
| Jaga udara | (Keep the air) |
| Jaga tanah | (Keep the ground) |

The excerpt of the poem above explains to boost the immune system so that it won’t be weak during the Covid-19 outbreak. One of several ways to boost the immune system is by consuming nutrition. There is also suggestion which can be seen in the poem to consume nutritious drinks with a mixture of hot water, ginger, turmeric, and lemongrass to increase the host power during the pandemic. The poem entitled Jaga-jaga (Just in Case) constructs epidemiological knowledge about mitigation of Covid-19 outbreak. The outbreak mitigation is done by increasing the host power through ginger and turmeric. During the Covid-19 outbreak, the fulfillment food and beverages containing essential nutrition is important to do. Therefore, the food supplies and logistic costs for the fulfillment of nutritious food can be done during the pandemic to maintain the immune system [22].

3.4 Primordial prevention

Primordial prevention is an effort done to prevent the Corona virus in the surrounding environment by doing healthy habits such as regular exercise to maintain the sustainability of ecosystem. Primordial prevention is also interpreted as prevention by eliminating the root cause; in this case, keeping the environment healthy and behaving healthy toward the environment as well as ourselves [10]. The primordial prevention efforts found in Indonesian poems form a pattern of prevention in two ways that are carried out through the character’s actions such as giving suggestions in poems. The two patterns are environmental pollution prevention and green campaigns.

Preventing environmental pollution in primordial prevention is preventing air, water, and soil pollution, so they won’t be contaminated with corona virus that can cause the outbreak. This is done to keep the environment healthy and safe from potential outbreak transmission because the transmission of Covid-19 is often carried out through air contaminated with virus. In Indonesian poems, preventing pollution is done to prevent air pollution in societies. The efforts to prevent air pollution are seen in the poem entitled Pelajaran untuk Selalu Cuci Tangan (A Lesson to Always Wash Hands) by Akhmad Sekhu as follows.
Tak ada lagi udara bersih, yang ada kematian mengancam diam-diam
Masa darurat ditetapkan, seluruh warga dunia tak berdaya apa-apa
Sungguh semua aktifitas dibuat lumpuh tak ada yang bisa dilakukan

(No more clean air, only the covert death is threatening)

(All activities are paralyzed there is nothing to do)

The excerpt of the poem above describes that the Covid-19 outbreak has caused the air pollution. Accordingly, if the unhealthy air is inhaled by humans, they can be infected with the virus. Pollution prevention is indeed needed especially preventing air pollution. The prevention efforts can be done by warning people about the importance of clean and healthy air, so people will stop polluting the air. The poem entitled *Pelajaran untuk Selalu Cuci Tangan* (A Lesson to Always Wash Hands) constructs epidemiological knowledge about covid-19 outbreak mitigation. Mitigation of the outbreaks is carried out by primordial prevention through preventing pollution in the form of warnings of the air pollution hazards. Several studies have shown that certain air pollutants can increase the transmission of coronavirus and cause the risk of death. As research conducted in Catalonia Spain which showed that the death caused by Covid-19 in urban industrial areas is higher than in rural agricultural zones [23].

Green campaigns are also primordial prevention efforts in addition to preventing pollution. Green campaign in mitigation of Covid-19 outbreak is an effort to promote energy-efficient living and to use clean environmental technology. This is done to keep the surrounding environment healthy and avoid the threat of Covid-19 outbreak. In Indonesian poems, green campaigns are represented in two actions, including warning efforts on humans and recommendations to protect the environment. One of the actions is a warning to humans that appears in a poem entitled *Sabda Bumi* (Word of Earth) by KH. Ahmad Mustofa Bisri or Gus Mus as follows.

*Barangkali bumi telah lelah*
*oleh ulah khalifahnya yang berulah*
*Seolah-olah meluapkan keluh-kesah:
Istirahathal, wahai khalifah*
*Brentilah melelah*
*nafkah tak berkah*
*Berkahi sesama hamba Allah*
*mengurasbukan mengurus bumimu yang semakin parah.*

(Perhaps the earth is tired)
(by the actions of its khalifah)
(As if it complained:)
(Take a break, khalifah)
(Stop feeling tired)
(The unblessed living)
(Bless the other servants of God)
(Depleting is not taking care of your earth which is getting worse.)

The poem above describes that the Covid-19 outbreak has devastated the economic as well as health sectors. It is a natural warning that the people as khalifah on earth are not busy
damaging nature. Moreover, it is expected that khalifah can take care of the earth by blessing all creatures of God. The poem entitled *Sabda Bumi* (Word of Earth) constructs epidemiological knowledge about mitigation of Covid-19 outbreak. The outbreak mitigation is carried out by primordial prevention through green campaigns in the form of natural warnings. The Covid-19 outbreak is a warning for people not to damage the environment, especially the wild. By not raising or consuming wild animals, the transmission of the virus can be reduced because it is known at the beginning that the spread of this virus is from bats and pangolin which belong to wild animals. So, it is important to do conservation and environmental preservation for mutual benefit [24].

3.5 Tertiary prevention

Tertiary prevention is an effort made in the medical field to cure patients so that the disease they suffer from won’t get worse that can cause disability and death. This effort aims to prevent defects which widely happened during the treatment and rehabilitation of sufferers, so it won’t be related to the expertise of environmental engineering or environmental fields [10]. In Indonesian poems, tertiary prevention appears through the character’s action when rehabilitating Covid-19 patients. Rehabilitation of patients is the fulfillment of health facilities for people who are monitored because they are indicated to be infected with the Covid-19 outbreak. Rehabilitation efforts of these patients are represented through the efforts of the medics in rehabilitating the sufferers. The efforts of the medics are seen in an old poem in the form of *pantun* entitled *Pahlawan Sejati* (True Heroes) by Achmad Fachrodji below.

*Seindah amarilis si bunga dahlia*
*Dipadu melati menghiasi istana*
*Tenaga medis sangatlah mulia*
*Pahlawan sejati melawan Corona*

(As beautiful as a marigold the dahlia flower)
(Combined with jasmine decorated the palace)
(The medics are very noble)
(True heroes against Corona)

The excerpt of the *pantun* above explains the importance of the medics in handling and recovering the Covid-19 patients. In addition to having to fight to cure patients, the medics must also be ready to be infected with the virus because they are susceptible to be infected. Because of their sacrifice, the medics are considered as true heroes because their obligation is very noble. *Pantun* entitled *Pahlawan Sejati* (True Heroes) constructs epidemiological knowledge about mitigation of Covid-19 outbreak. The outbreak mitigation is carried out by tertiary prevention through rehabilitation of patients done by the medics. To maximize the performance of the medics to prevent Covid-19, the fulfillment of the number and arrangement of working hours of the medics is important. In addition, the completeness of medical equipment and personal protection is also a priority for the success of handling patients [25].
4 Conclusion

As shown in this article, outbreak disaster mitigation is a part of an epidemiological study that discusses human interaction related to efforts in controlling and preventing an outbreak. Indonesian poems published from the beginning of 2020 to August 2020 show us a lot of knowledge construction about disaster mitigation of the Covid-19 outbreak depicted in the actions of its characters. From the excerpts of poems, there are five types of disaster mitigation of Covid-19 outbreak, i.e. efforts in controlling the source of agents, breaking the chain of transmission, increasing the host power, implementing primordial prevention, as well as tertiary prevention.

The source of the agent control is constructed by the character’s actions in the form of efforts to treat sufferers under the treatment of doctors in Indonesian poems. Besides, the isolation of the sufferers is also done by isolating the sufferers in hospitals. Physical reservoir control is carried out through policies of keeping physical distancing and conducting online press conferences. In addition, policies in the form of prohibitions are also carried out to control the physical reservoirs, including bans on going to mosques, assembling, shaking hands, hugging, making visit of condolence, religious activities, and receiving guests.

Moreover, efforts to mitigate the outbreak through breaking the chain of transmission are also constructed in Indonesian poems. Breaking the chain of transmission is done through individual hygiene that is constructed in poems by the habit of washing hands to avoid the Covid-19 virus. Disinfection and sterilization efforts are also seen in Indonesian poems represented in two actions, including the Covid-19 corpses handling and settlements spraying to kill viruses before infecting humans. Preventing travel is also an effort to break the chain of transmission by doing several actions i.e. learn from home, work from home, Pembatasan Sosial Berskala Besar (a Large-Scale Social Restriction), lockdown, stay at home, homecoming ban, and flight cancellations.

Efforts to mitigate the outbreak by increasing the host power are also constructed in Indonesian poems through the character’s actions in chemical prevention, protection, and nutrition. Chemical prevention is carried out by using hand sanitizer, preparing Alat Pelindung Diri (Personal Protective Equipment) such as wearing masks, providing fluids, and wearing of hazmat suit for the medics in handling Covid-19 patients. Those efforts can be seen in Indonesian poems. In addition, the fulfillment of nutrition and vitamins is also carried out to increase the host power by fulfilling nutrition and encouraging people to consume nutritious food to increase the immune system.

Disaster mitigation is also constructed in Indonesian poems through the character’s action when trying to implement primordial prevention. The efforts are preventing pollution by preventing air pollution in societies. In addition, green campaigns by recognizing the natural warnings about the causes of an outbreak and campaign for protecting the environment are primordial prevention efforts. In addition, tertiary prevention is also seen in the efforts of rehabilitation of the sufferers by the actions shown by the medics in handling their patients.

The construction of outbreak mitigation knowledge in Indonesian poems is expected to be a reminder for readers and the public in order to be a guide in controlling and preventing the transmission of Covid-19 during this pandemic.
References


Pharmacists’ Knowledge, Perception and Practice on Antibiotic Stewardship: A Survey in Indonesia

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Abstract. Antimicrobial resistance has become a world health problem, with various detrimental effects that can reduce the quality of health services. The contribution of Pharmacists in antibiotic control has been proven effective, therefore pharmacists need to expand their role to be directly involved in patient care. This study aims to evaluate the knowledge, perceptions and practices of pharmacists in antibiotic stewardship. The study used cross-sectional design by collecting data in August-September 2020 from pharmacists. The data were analyzed using the Mann-Whitney and Kruskal-Wallis test with SPSS version 20.0. 186 pharmacist average score of knowledge 4.25 ± 0.39, perception 4.32 ± 0.38 and practice 42.96 ± 6.36. Results showed that 59.68% have good knowledge, 79.57% good perception and 99.46% good practiced on antibiotic stewardship. The Mann Whitney test showed a significant difference on the level of knowledge based on education level and the Kruskal-Wallis test showed a significant difference on the level of knowledge, perception and practice by workplace. Most of the pharmacist have good knowledge, perception and practice about antibiotic stewardship.

Keywords: Pharmacists, knowledge, perception, practice, antibiotic stewardship

1 Introduction

The data on the rational use of Indonesian antibiotics are still limited. The result of the study, entitled "Antimicrobial Resistance in Indonesia, Prevalence and Prevention [1]" indicates the problem of antimicrobial resistance, namely the use of antibiotics that is not wise, and controls that have not been implemented properly. The result of the AMRIN research team at 2 teaching hospitals in Indonesia shows that only 21% of antibiotic prescriptions are rational [2], and it also results in recommendations in the form of validated methods to control bacterial resistance efficiently and according to the standard. Through the Indonesian Ministry of Health, the results of these studies are disseminated throughout hospitals in Indonesia, with the hope that the results of these recommendations can be carried out immediately [1]. Misuse, overuse and underuse of antibiotics are the main causes of the emergence of resistant microbes [3]. Antimicrobial resistance has become a world health problem, with...
various detrimental effects that can reduce the quality of health services. The growth and development of antimicrobial resistance occur because of the selection process related to the use and spread of antibiotics. The selection process can be inhibited by increasing the use of antibiotics wisely, while the spread process can be inhibited by implementing infection control (standard precautions) correctly [4].

WHO in 2015 developed a "Global Action Plan On Antimicrobial Resistance" [5]. Most countries are pursuing strategies to overcome the increase in antimicrobial resistance, both individuals, government agencies or agencies and between institutions from one country to another with the "Antimicrobial Stewardship Program".

Evaluation of drug use is one of the pharmacists' duties in providing added value and increasing the pharmacist's role in the health service system. (AMCP, 2004). Evaluation of the quality of antibiotic use is carried out to determine the antibiotic use policy. Gyssens et al., developed an evaluation of antibiotic use to assess the appropriateness of antibiotic use such as; the accuracy of indication, the accuracy of antibiotic selection based on effectiveness, toxicity, price and spectrum, duration of administration, dose, interval, route, and time of administration [6]

The study MacMillan MK, 2019 [7] shows the impact of involving pharmacists in the Antimicrobial Resistance Control Program, that is the use of antimicrobials becomes rational and more efficient in-patient follow-up. The pharmacist's role has an impact on reducing inappropriate antimicrobial regimens, optimizing prescriber behaviour, monitoring antimicrobial use, preventing infection incidence, advising doctors, educating all health workers, and helping to develop policies [8]. The contribution of pharmacists in antibiotic control has been proven effective, therefore pharmacists need to expand their role to be directly involved in patient care such as modification of intravenous care to oral and Automatic Stop Orders which can improve patient care [9]. Various campaigns to control antibiotic resistance have been carried out but not many research has been found on the knowledge, perceptions and practices of pharmacists in controlling antimicrobial resistance programs. Based on the above background, the researchers considered it necessary to know the knowledge, perceptions and practices of pharmacists in controlling the use of antibiotics.

2 Method

This study is a preliminary study prior to the development of an intervention model for the Automatic Stop Order of antibiotics in hospitals. This type of research is non-experimental with a descriptive survey design. The data collection involves pharmacists in September-October 2020. The research subjects are pharmacists who practice in pharmaceutical services. Data collection activities begin after the research protocol has obtained ethical clearance from the Research Ethics Commission of the Faculty of Medicine, Gadjah Mada University, Yogyakarta.

The editing process includes the checking of the data completeness, then grouped by respondents' answers. The questionnaire is adopted from [10] which has been translated into Indonesian. The questionnaire provided is validated by sending 2 experts to ask for related opinions about the relativity and importance of the content. The necessary improvements are made to the questionnaire before it is given to the respondent. The reliability coefficient of the data obtained was calculated using SPSS v.20 with a Cronbach alpha value of 0.637 for knowledge, 0.741 for perception and 0.709 for practice.

The questionnaire has 32 question items and is divided into 4 sections
1. Characteristic of the pharmacist that consists of 5 questions
2. Knowledge that consists of 8 questions,
3. The pharmacist’s perception that consists of 8 questions

The rating scale for knowledge and perception uses a 5-point Likert scale. The scores are 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree.
4. The pharmacist practice consists of 11 questions. The scores are 1 = never, 2 = rarely, 3 = sometimes, 4 = often, and 5 = always.

The overall score of knowledge, perception and practice is carried out in such a way that 0.5–1 is defined as “very bad”, 1.5–2 “bad”, 2.5–3 “acceptable”, 3.5–4 “good”, and 4.5–5 “very good”. Practice-related outcomes are defined as "good" versus "bad." For practice, a score ≥28 is considered good, and a score <28 is considered bad.

The data is analyzed using SPSS v.20. Descriptive analysis is used to display data. The data normality test uses the Kolmogorov-Smirnov test. Inferential statistics (Mann-Whitney and Kruskal-Wallis tests) are used to see the difference in scores due to abnormal data distribution. The p-value is less than 0.05, which means statistically significant.

3 Result and Discussion

A total of 186 respondents are all pharmacists. Most of them are female (81.2%) in the age of 25-45 years (86.6%), and have pharmacist degree (81.7%) responded to this survey. Most of the respondents (57%) have been working less than 5 years and 57% of the pharmacists’ work in a pharmacy. Sociodemographic profiles of the respondents are provided in Table 1.

<table>
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<td>Works experience</td>
<td>&lt;5 years</td>
<td>64</td>
<td>34.4</td>
</tr>
<tr>
<td></td>
<td>5-10 years</td>
<td>58</td>
<td>31.2</td>
</tr>
<tr>
<td></td>
<td>11-15 years</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>16-20 years</td>
<td>19</td>
<td>10.2</td>
</tr>
<tr>
<td></td>
<td>&gt;20 years</td>
<td>45</td>
<td>24.2</td>
</tr>
<tr>
<td>Workplace</td>
<td>Pharmacies</td>
<td>106</td>
<td>57</td>
</tr>
<tr>
<td></td>
<td>Community health centers,</td>
<td>11</td>
<td>30.1</td>
</tr>
<tr>
<td></td>
<td>Hospitals</td>
<td>56</td>
<td>5.9</td>
</tr>
<tr>
<td></td>
<td>Clinics</td>
<td>13</td>
<td>7.0</td>
</tr>
</tbody>
</table>
A total of 186 respondents has responded to 8 questions about their knowledge on antibiotic stewardship. From the maximum score of knowledge about antibiotic stewardship of 5, it is obtained that respondents have an average score of 4.25 ± 0.39. Therefore, respondents have good knowledge of antibiotic stewardship. A total of 182 (97.9%) participants strongly agree/agree that "Antibiotics are useful for bacterial infections". As much as 89.8% (n = 167) participants strongly agree/agree that "Antibiotics can kill the 'normal flora' of the human body. For details on respondents' answers to questions that support their knowledge of antibiotic stewardship can be seen in Figure 1.

Respondents' responses to unfavourable questions, as many as 137 (73.6%) participants strongly disagree that "Antibiotics are useful for viral infections". The details of respondents' answers to unfavourable questions about knowledge of antibiotic stewardship can be seen in Figure 2.
All respondents have responded to 8 questions about their perceptions of AMS. From a maximum score of 5 (100%), for the perception of AMS, the average respondent score is 4.32 ± 0.38. Respondents stated that they have positive perceptions about AMS. All participants strongly agree that "AMS program reduces the problem of antimicrobial resistance and should be incorporated at the community-pharmacy level. The details of respondents’ answers to questions that support their perception of antibiotic stewardship can be seen in Figure 3.

All respondents strongly disagree that Health care professionals other than prescribers do not need to understand AMS

All respondents strongly agree that "I ask the patients about their knowledge..."
All respondents responded to all statements about their practice at AMS. A maximum score is 55 (100%), the respondents obtain an average score of 42.96 ± 6.36. Therefore, the respondents show good results practice about AMS: 86.1% (n = 160) of respondents dispense antimicrobials on prescriptions with complete clinical information. Details of Respondents' responses can be seen in Figure 5.

Fig. 6. Responses of pharmacist regarding practice antibiotic stewardship (Question Unfavorable)

83.3% (n = 155) of the participants never / rarely dispense antimicrobial without prescriptions and 95.7% (n=178) of them never/ rarely dispense antimicrobial agents for longer than the durations prescribed by the physician on patient request.

This study evaluates the knowledge, perceptions and practices of pharmacists in antibiotic stewardship. The results show that 39.78% of pharmacists have very good knowledge of antibiotic stewardship, 59.68% is good and 0.54% is acceptable. The pharmacist's perception of stewardship antibiotics is very good 14.52%, 79.57% is good and 5.91% is acceptable. Most of the pharmacists (99.46%) practice well on antibiotic stewardship. Pharmacists have a lot to do with problems about antimicrobial resistance and antimicrobial stewardship and more willingness to participate in antimicrobial stewardship interventions in the hospital (11).

Pharmacists in Pakistan have positive knowledge and practice towards AMS. Implementation of the AMS program is needed in Pakistan and pharmacists play an important role in it by enhancing and updating their knowledge according to the current guidelines with ongoing training and professional development programs. Pharmacist's and other healthcare professionals should work together in multi-disciplinary teams to reduce antimicrobial risk resistance, to reduce the economic burden, to improve patient quality of life, and to reduce the length of stay due to infection (12).

Research on the knowledge, perceptions and practices of pharmacists in antibiotic stewardship has not been widely studied. Most of the research use community pharmacy respondents. Pakistani research of Community Pharmacists shows that community pharmacists are well-versed in antibiotics. There are some internal flaws Perceptions and practices of community pharmacists about AMS (10). The pharmacy community has a positive perception of antibiotic stealth but they feel they need training, anti-microbial stewardship guidelines and a collaborative GP-CP system to improve their practice (13). Portuguese pharmacists understand that the use of antibiotics and bacterial resistance can be improved by changing behaviour related to antibiotics (14). The Minister of Health of the Republic of Indonesia has published general guidelines for the use of antibiotics and guidelines for pharmaceutical services for antibiotic therapy so that pharmacists can refer to these guidelines in carrying out their practice (15) (16).
Table 2. Pharmacists' knowledge, perceptions, and practices regarding antibiotic stewardship based on the characteristics of the respondents

<table>
<thead>
<tr>
<th>Variable</th>
<th>Categories</th>
<th>Knowledge Mean±SD</th>
<th>Perception Mean±SD</th>
<th>Practices Mean±SD</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Female, Male</td>
<td>4.25 ± 0.40</td>
<td>4.31±0.38</td>
<td>42.88±6.4</td>
<td>0.782</td>
</tr>
<tr>
<td>Age</td>
<td>&lt;25 years, 25-35, 36-45, 46-55</td>
<td>4.27±0.27, 4.3±0.38, 4.26±0.43, 4.24±0.39</td>
<td>4.33±0.32, 4.31±0.38, 4.35±0.39, 4.22±0.37</td>
<td>38.85±5.84, 43.25±6.53, 43.19±6.41, 44.36±5.26</td>
<td>0.907, 0.775, 0.775, 0.748</td>
</tr>
<tr>
<td>Education</td>
<td>Pharmacist degree, Master degree</td>
<td>4.21±0.39, 4.39±0.36</td>
<td>4.31±0.37, 4.33±0.38</td>
<td>42.88±6.35, 43.59±6.46</td>
<td>0.025, 0.017, 0.934, 0.509</td>
</tr>
<tr>
<td>Work experience</td>
<td>&lt;5 years, 5-10, 11-15, 16-20, &gt;20 years</td>
<td>4.26±0.37, 4.26±0.39, 4.15±0.50, 4.26±0.38</td>
<td>4.33±0.37, 4.29±0.35, 4.30±0.33, 4.37±0.43</td>
<td>42.73±6.79, 41.91±6.49, 44.37±6.47, 44.04±5.39</td>
<td>0.817, 0.638, 0.004, 0.324</td>
</tr>
<tr>
<td>Workplace</td>
<td>Pharmacies, Community health centers, Hospitals, Clinics</td>
<td>4.21±0.39, 4.32±0.38, 3.99±0.38, 4.42±0.39</td>
<td>4.26±0.38, 4.50±0.36, 4.16±0.23, 4.43±0.36</td>
<td>41.71±6.27, 44.96±6.16, 44.27±5.44, 43.38±6.91</td>
<td>0.004, 0.0017, 0.017, 0.010</td>
</tr>
</tbody>
</table>

The mean in knowledge, perceptions and practices regarding antibiotic services is analyzed. Based on the Mann-Whitney test, the independent samples show no statistically significant difference (p>0.05) between scores of pharmacists' knowledge, perceptions and practice in antibiotic services. Meanwhile, the education level shows a statistically significant difference (P<0.05) in knowledge level score. Educated pharmacists have a higher knowledge score (P<0.05) versus pharmacists with a bachelor's degree. The results of the independent sample Kruskal-Wallis test, age and work experience, score of knowledge, perception and practice of pharmacists do not have a statistically significant difference. (P>0.05). Work place shows statistically significant differences (p<0.05) in pharmacist knowledge, attitudes and practice in antibiotic surveillance.

According to the Association of American Health-System Pharmacists (ASHP) pharmacists have a responsibility to play an important role in antimicrobial stewardship programs and participate in infection prevention and control programs. The pharmacist's responsibility for antimicrobial stewardship and infection prevention and control includes promoting rational antimicrobial use, reducing infection transmission, and education of health professionals, patients and the public (17). The role of the Pharmacist has an impact on reducing antimicrobial regimens that are not suitable through various AMS strategies, optimizing prescriber behaviour, monitoring antimicrobial use, prevention of infection incidence and education, training and public involvement (8).
Based on the level of knowledge, there is a significant difference between pharmacists with a master degree and a bachelor degree. Pharmacists with a master degree have a higher knowledge score than those with a bachelor degree. The higher the pharmacist's education level, the better the knowledge level. Pharm D students know more about antibiotic use and resistance than B Pharm students who lack of accurate information. Therefore, it is necessary to educate B Pharm students so that they can apply the knowledge gained during education in their practice (18). Pharmacists in Malaysia who have postgraduate qualifications are more likely to have a positive perception of antimicrobial stewardship than non-postgraduate pharmacists (19). The study (20) concludes that a continuous effort is needed to improve pharmacist skills by adding more materials on infectious diseases to the curriculum and adding AMS training. Pharmacists are a core team of AMS which need continuing education that is in line with practical realities. In Indonesia, Indonesian Pharmacists Association (IAI) has implemented Continuing Professional Development (CPD) to refresh and update the knowledge of practising pharmacists.

Based on the workplace, there are significant differences in scores of pharmacists' knowledge, perceptions and practice of antibiotic stewardship. Pharmacists who work in hospitals have the lowest knowledge and perception scores compared to pharmacists who work in pharmacies, public health centres and clinics while pharmacists who work in pharmacies have the lowest practice score than pharmacists who work in other pharmaceutical service facilities. Because there are still many pharmacists in hospitals who have never attended training in antimicrobial stewardship. Based on the Minister of Health regulation no. 8 of 2015 concerning Antimicrobial Stewardship Program, each hospital must carry out Antimicrobial Stewardship Program optimally, so that pharmacists who practice in several hospitals have become the members of the Antimicrobial Stewardship Program team (21).

4 Conclusion

Most Pharmacists in Indonesia have knowledge, perceptions and good practice of pharmacists. 186 pharmacist average score of knowledge 4.25 ± 0.39, perception 4.32 ± 0.38 and practice 42.96 ± 6.36. Results showed that 59.68% have good knowledge, 79.57% good perception and 99.46% good practiced on antibiotic stewardship. The Mann Whitney test showed a significant difference on the level of knowledge based on education level and the Kruskal-Wallis test showed a significant difference on the level of knowledge, perception and practice by workplace.

References


Gender Analysis in Development of Economic and Education Sector in Bekasi Regency

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Abstract. Nowadays, world’s attention towards gender based development which accommodate women rights is getting bigger and more serious. Development has important roles in the progress of a nation. Implementation of development programs in Bekasi regency has tried to put public welfare as the priority. But in fact, in justice and inequality based on gender still occurred. The objective of this research is to provide big data and reveal issues regarding to gender analysis which is collected simultaneously, actual and comprehensive in order to formulation of planning and decision making related to sustainable development in Bekasi Regency. This research was descriptive analysis model by using combination of qualitative and quantitative data collected from particularly in the development in economic and education sector. Conclusion, based on Gender Pathway Analysis founded that the GDI in Bekasi Regency is still low. Therefore, formulation of development in Bekasi need to involves gender analysis and gender mainstreaming concept into action. The implication, through this gender analysis, formulation of development in Bekasi needs to create more responsive gender in the development concept.

Keywords: Gender analysis, development, education, economic, GDI

1 Introduction

The objective of national development is to create prosperous, welfare and justice life by focusing on human being both to individual and society. The result of development needs to be perceived by all level of society. But in fact, participation of women in development is still low, gender injustice and discrimination are existing as the impact of development which rely on social structure and infrastructures. As the consequence, nationally since 2010 until 2018, there is a deep gap in Human Development Index between men and women and also followed by the fact that gender development gap is higher and deeper. Female participation in socioeconomic development initiatives has been considered crucial not only for fueling economic growth but also for enhancing gender equality in many low and lower-middle income countries [1].

In Bekasi regency, 51.4% of the total population is women. In number, women is higher. But the big question is how the quality of women is in Bekasi regency? Does the development in Bekasi has put gender mainstream as one of their strategy? Responsive gender strategy in implementing development is very important. Gender role as strategy for responsive gender development has been spread rapidly worldwide. (Akpa and Ekenta, 2020) explained that in gender role, men strongly agreed that males should also be doing domestic work in the family
and women should be involved in paid jobs, economic, politic, education and soon. This present paper describes and elaborates the gender analysis in two main sector; economic and education. This two sectors have significant effect on HDI and GDI in Bekasi Regency in elaborating economic sector the data focus on workforce, potential poverty, and land ownership. In elaborating education sector, the data focus on numbers of teacher and headmasters. It is also critically the effectiveness of development which has not put responsive gender as one of development strategy. This research is aimed to get comprehensive data by doing gender analysis by comparing HDI and GDI, and comparing GDI on economic and education sector.

2 Method

This research was conducted in Bekasi Regency within 8 month’s duration of collecting data. This research used qualitative research. The research steps: (1) Field grand, (2) Observation and data collection (3) data analysis. The procedure on answering the objective of the research was conducted by determining research question in general, and then selecting relevant locus and subject of research and continued by collecting relevant data. Direct observation, in-depth interview (structured and unstructured interview), making documentation were conducted simultaneously in finding the data. Random observation was conducted on natural situation in the whole 23 districts and government agencies in Bekasi Regency. The unscheduled and without appointment observation was selected to get natural and real data. Data found was analyzed and interpreted. The next procedure is working on conceptual and theoretical work and making conclusion. To get accurate and reliable data, data was take from various competent resources purposively (Executive government of Bekasi, Head of Departments (OPD), Central Bureau of Statistic). The procedure of data analysis followed model of Miles and Huberman: (1) data reduction, (2) data display, and (3) conclusion drawing/verification. Data found was analyzed by selecting relevant data, specific coding was used to help researcher to display data. Procedure of data validity covered credibility, transferability, dependability and conformability.

3 Result and Discussion

3.1 Analysis gender on economic sector

In elaborating economic sector, this paper focused on three aspects: workforce, potential poverty, and land ownership. Bekasi regency is the biggest industrial area not only in Indonesia, but also in Southeast Asia. As industrial regency, there are potential job opportunities. To clarify that opportunity, observe the following Table 1.

Equality to get job between men and women is guaranteed in Indonesian constitution, article 28D paragraph (2) states that everyone has right to work and get wage and treat in fair and justice as well as proper in work relationship. In fact, women get lower salary than men. Female worker paid lower than men, is about 77.8 % from salary paid for male worker [3]

The workforce participation rate provides an indication that there is big gap between men and women. The number of working men is 2 times higher than women. Many factors can explain this phenomenon. The gender gap is most obvious in the labor market, where women
often face greater barriers than men in terms of securing a decent job, wages and conducive working condition [4].

**Table 1. Number of workforce in Bekasi Regency in 2019**

<table>
<thead>
<tr>
<th>Types</th>
<th>Men</th>
<th>Women</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Workforce</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Working</td>
<td>928,788</td>
<td>416,033</td>
<td>1,344,821</td>
</tr>
<tr>
<td>Not Working</td>
<td>92,859</td>
<td>57,000</td>
<td>149,859</td>
</tr>
<tr>
<td><strong>Not Workforce</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Study/School</td>
<td>120,976</td>
<td>103,305</td>
<td>224,281</td>
</tr>
<tr>
<td>Home Care</td>
<td>9,546</td>
<td>550,523</td>
<td>560,069</td>
</tr>
<tr>
<td>Others</td>
<td>51,879</td>
<td>30,038</td>
<td>81,917</td>
</tr>
</tbody>
</table>

**Table 2. Number of potential poverty in Bekasi Regency in 2019**

<table>
<thead>
<tr>
<th>No</th>
<th>Year</th>
<th>Number of Risky Women in Social Economy</th>
<th>Number of Poor People (Women)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>2015</td>
<td>2,866</td>
<td>N/A</td>
</tr>
<tr>
<td>2.</td>
<td>2016</td>
<td>2,866</td>
<td>50,458</td>
</tr>
<tr>
<td>3.</td>
<td>2017</td>
<td>4,106</td>
<td>108,975</td>
</tr>
<tr>
<td>4.</td>
<td>2018</td>
<td>38,945</td>
<td>595,230</td>
</tr>
<tr>
<td>5.</td>
<td>2019</td>
<td>26,482</td>
<td>542,318</td>
</tr>
</tbody>
</table>

Table 2 shows the number of potential poverty which significantly increases from year to year. It indicates that the result of development is not equally perceived and not responsive gender. Critical input needs to be given to the local government in order to put responsive gender strategy in action as soon as possible to reduce the number of poor women. It is an interesting fact that Indonesia is a large country with many populations living in rural areas but so far there is no poverty reduction especially for women [5]. Women participation in development through the economic sector will reduce those numbers. Everyone, no matter from which social-economic level they come from has the right to take benefit from the development process. If one of the group is left behind, thus the development may be assumed to have failed [6].
The third aspect analyzed is ownership of land farming in 15 districts from 23 districts in Bekasi Regency. Very deep gap exists. Majority land farming is owned by men and only very small number owned by women. Women contribution on economic sector through farming mostly represent as active worker, not as owner. Females involved in household activities as well as agriculture households assist the farmers in fields. They also participate in all agricultural activities like crop production, input allocation, processing and storage [7].

### 3.2 Analysis gender on education sector

In elaborating education sector, this paper focused on two aspects: number of teachers and headmasters. These two aspects were selected due to still few discussions on those topics regarding to research about gender analysis on education sector.

<table>
<thead>
<tr>
<th>School Level</th>
<th>Men</th>
<th>Women</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary</td>
<td>4,527</td>
<td>8,963</td>
<td>13,490</td>
</tr>
<tr>
<td>Junior High</td>
<td>2,283</td>
<td>2,886</td>
<td>5,169</td>
</tr>
<tr>
<td>Senior High</td>
<td>1,036</td>
<td>1,317</td>
<td>2,353</td>
</tr>
<tr>
<td>Vocational</td>
<td>1,379</td>
<td>1,209</td>
<td>2,588</td>
</tr>
<tr>
<td>Number</td>
<td>9,225</td>
<td>14,375</td>
<td>23,600</td>
</tr>
</tbody>
</table>

Based on the Table 3 above, total number of female teachers is bigger that male teachers. It happened in almost all school level except in vocational school in which number of male teacher is slightly higher than female teachers. In fact more female teacher are exist due to shifting paradigm on women. Women is not only focus on doing household activities, but they also take apart in many aspect of life as men do. In terms of formal education, year by year, more women put much concern on their study and more women go to university [8].

<table>
<thead>
<tr>
<th>Year</th>
<th>Men</th>
<th>Women</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>1,187</td>
<td>731</td>
<td>1,918</td>
</tr>
</tbody>
</table>

By concerning that number of teachers is dominated significantly by female teachers, very sad to see the reality in numbers of headmasters. Male headmasters dominated top leader in school. Men and women have the same right to get position as headmaster. Educational bureaucrat must increase their awareness and sensitivity and not always use bias standard in deciding policy to transform into gender perspective education [8]. Participation of women in process of management, decision making and many other aspect in education is still low. This gap need intervention from government to realize equality in gender. There are many hopes rely on women to take part more actively in society. But, in reality the traditional assumption which put women in discrimination such as women is weak, emotional, moody, can’t work under pressure, and many others labeling is still exist [9].
4 Conclusion

This research conclude that the effect of development, particularly in economic and educational sector was not perceived equally between men and women. Based on gender analysis on the two aspects, men get more benefit from the development which is still not put responsive gender strategy as priority. From the aspect of economic and education sector, there is deep and high gap in gender development index between men and women. Eventough in number, population of women is higher than men, but the gender development index in economic and education put men is higher than women. Sensitive and responsive gender strategy in development needs to take into action in the coming years.

Acknowledgements

I would like to dedicate my greatest appreciation to all parties who has given positive contribution on this research. Particularly to regional government of Bekasi regency. That’s a lot for the very good collaboration and cooperation. Secondly, my deepest thank to all colleague in education faculty of Bhayangkara Jakarta Raya University and LPPMP of Bhayangkara Jakarta Raya University Unit which funded this research.

References

Aggressive Behavior Psychological and Islamic Perspective

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Abstract. Aggressive behavior can interpret as behavior that aims to hurt others. Aggressive behavior, if not prevented quickly, will have a negative impact in the future. In the Islam perspective, aggressive behavior is found in the Quran and Hadith, as explained in surah An Nisa 111. Maqasith Sharia (Purpose of sharia) is something that the teachings of Islam are the self-care and disobedience of others. This research aims to systematically identify aggressive behavior through psychological and Islamic perspectives through the Qur'an as well as the Prophet's Hadith. This research is qualitative research with a library research approach. The results of this study show that the Qur'an and Hadith provide an integrative and holistic conceptual picture of aggressive behavior. In the study of aggressive behavioral psychology that can integrate with the approach of the Qur'an and Hadith. Both concepts, both psychology, and Islam, both see aggressive behavior as negative behavior because it harms others, teachings of the Qur'an and Hadith explain in psychology ideas. For further research with the same topic can study with Islamic figures who are concerned with psychology studies.

Keywords: Aggressive behavior, psychological perspective, islamic perspective

1 Introduction

Aggressive behavior is behavior both physically and mentally, which is do to hurt or injure others [1]. There are three forms of aggressive behavior, which divide into: 1) physically aggressive behavior, namely a condition of hatred which causes another person, object, or animal to be physically injured due to hitting, kicking, pinching, grabbing, and so on. 2) Verbal aggressive behavior, a form of hatred that can verbally harm others by insulting, mocking, harassing, and so on. 3) Relational behavior, namely subtle aggressiveness in the form of manipulation and threats to destroy relationships and psychological peace, is done by humiliating, lying, mocking, and breaking friends [2].

In Islam, aggressive behavior is classified as despicable in Arabic (akhlak madzmumah), this term is used by several books of Islamic thinkers such as Al Ghazali Kitab Ihyâ Ulumuddin [3]. The form of madzmumah morality can relate to Allah, Rasulullah, himself, his family, society, and nature [4]. There are various kinds of despicable behavior: shirk, kufr, nifaq and wickedness, arrogance and ujub, envy, cursing, the pride of yourself, and dhalim. In its integration, aggressive behavior is categorized as despicable behavior.

In a sense, dhalim [5] is quoted from Abu Husain Ahmad in the book Maqayis al Lughah, dhalim is an Arabic language whose root word consists of the letters dzâ ’, lâm, and mim have two original meanings, the first is to place something is out of place and the second is the
opposite of a ray of light. Dzalim and the words with the same roots are repeated 289 times, and the sign is that dzalim is something that many people often do.

In the Qur'an dzalim has several meanings, including in several chapters as follows: Al Baqarah 165 and Huud 101, worshipers other than Allah. Al Maaidah 47, who made lust as god and harmed others. Al Kahlī 35, a character of his arrogance and disbelief. Al-Anbiyaa '13, the wrongdoer when he felt the punishment of Allah ran away, Al' Ankabuut 46, denied and In the Hadith, the behavior of dhalim is a matter that is shunned in the Hadith, this is like the Hadith of Qudsi in the hadith book of Arbain Nawawi, about the prohibition of doing wrong with one another. From Abu Dhar Al Ghifari radhiallahuanhu from Rasulullah Sallallahu Alayhi wa Sallam as he narrated from Allah Azza Wajalla 18): O my servant, in fact I have forbidden injustice to Myself and I have decreed its haram (injustice) among you, so do not you do wrong each other. [6]

Aggressive behavior is one indicator in people with behavioral and emotional disorders. If the aggressive behavior is repeated and persists. Children who experience behavioral and emotional disorders have obstacles in adapting to their environment. [7] Children with high levels of aggression are often diagnosed as having disruptive behavior problems (DBP). DBP is characterized by a lack of self-control over emotions and behavior, a persistent pattern of violating others’ fundamental rights and breaking basic societal norms/rules. This includes aggression towards people or animals, destruction of property, and lying and theft.

A rise in youth crime and delinquency suggests that children's aggression and related behaviors are severe. Aggressive behavior in school-age children increases the risk of peer rejection, drug abuse, and neglect in the future. Besides, longitudinal research indicates that aggressive behavior is more consistent over time than any other behavioral pattern. Approximately 5–15% of children between 5–11 years of age display clinically aggressive behavior [7]. For this reason, there needs to be a more in-depth study of aggressive behavior from a psychological and Islamic perspective.

2 Method

The method used in this research is qualitative research with the type of research library research. The approach used in this research is the integration-interconnection approach, where the science of religion (al ulum al-din) and psychology are interconnected, mutually correcting, and mutually reinforcing. Interconnection of scientific disciplines aims to provide openness between the concept of psychology and the science of religion, derived from the Koran and the Hadith, to dialogue and complement each other. The interconnections carried out in this study are connecting Islam through the Qur'an and the Hadith of the Prophet, which explains aggressive behavior with psychological studies.

3 Result and Discussion

3.1 Presenting the results

3.1.1 What is aggressive behavior?
Aggressive behavior has been a focus of research due to the psychological and social consequences associated with it.[8] Aggressive behavior can be interpreted as behavior that aims to hurt others. Aggressive behavior is divided into physical, verbal, and relational.

3.1.2 Physical aggressive

Physical aggressiveness is the aggressiveness that is used to injure another person physically. For example, kicking, hitting, and stabbing.[1] In Islam, aggressive behavior is a form of sin. Allah SWT does not allow people to hurt each other. In al-Qur'an surah al-Ahzab verse 58 Allah SWT "And those who hurt the believers and the believers without any mistakes they have done, then they have borne lies and sins that are evident. Rasulullah SAW also ordered us as Muslims always to keep our mouths and hands, so we don't hurt others". This can be seen in the Hadith of Abu Musa Al-Asy'ari ra "I asked Rasulullah SAW," O Messenger of Allah, which of the Muslims is the most devoted? " He said (answered)," One who can keep his hands and tongue. " The Hadith shows the importance of guarding our mouths and hands.

3.1.3 Verbal aggressive

Verbal aggressiveness is a form of hostility that is done to hurt others verbally, breaking using words. For example, swearing, taunting, and yelling[1]. A Muslim deserves to keep his name so that our speech is protected from dirty words, as well as stories that can hurt others or cause enmity. Because indeed, Allah SWT has ordered his servant to say excellent and right words. This is in accordance with Allah SWT's friman in al-Qur'an surah al-Ahzab verses 70- 71.

3.1.4 Relational aggressive

Relational Aggression (relational aggression) is behavior that causes harm to others by damaging (or threatening to damage) relationships or support, friendship, or group ties. Examples of Relational Aggression, namely: (1) Direct control (such as: "you are not my friend anymore, if...") (2) social alienation (by providing hidden threats), (3) Rejection (such as by spreading rumors so that the group rejects it), (4) Social exclusion (exclusion from the game or social group).[1] In social interaction, Islam has never positioned individuals because of social strata, skin color, ethnicity, seniority. Islam explicitly states that humans were created from different ethnic groups to know each other and do good deeds. The statement is by the letter Al-Hujurat / 49: 13).

3.1.5 Factors of aggressive behavior

Factors of aggressive behavior from two points of view, namely biological and behavioral. A physical perspective will pay attention to how hormones, temperament, brain, and nervous system impact aggressive behavior. While those who emphasize behavioral perspectives will pay attention to how environmental variables can corroborate aggressive actions [13].

Three factors of the environment influence aggression behavior: the learning process, reinforcement, and imitation of the model [2]. Imitation is the impersonation of the figure model so that all its behavior becomes modeled[14]. In the modeling process, children tend to imitate specific figures, one of which is the parent because it becomes the closest figure to the child[14]. The results explain the factors that cause children to experience emotional and behavioral
disorders due to parental treatment of the subject [15]. The most consistent set of predictors was gender, family actions against violence, peer violence, anger, academic performance, and alcohol use.[16] Besides, figures from media spectacles such as television [17] and video games[18].

Islam is in line with the approach of psychology in terms of factors that influence aggressive behavior that comes from the environment, families with home metaphors, in this case as described in the Hadith of the Prophet (peace and blessings of Allah be upon him) ‘alaihi wa Sallam said: لَا تَجْعَلُوْا بُيُوْتُكُمْ مَقَابِرَ, إِنَّ الشَّيْطَانَ يَنْفِرُ مِنَ الْبَيْتِ الَّذِي تُقْرَأُ فِيهِ سُوْرَةُ الْبَقَرَةُ. “Thou shalt not make your house like a tomb; Surely Satan is running away from the house which is recited in it.” In his book, the Shahîh, narrated by the Muslim Imam in his Shahîh in Musafirin Prayer's book (1821).

In another reference also described the environment as one of the factors that influence the behavior of a person, From Abu Hurairah, that the Prophet ‘alaihi wa Sallam said: للهِ عَلَى دِيْنِ خَلِيْلِهِ فَلْيَنْظُرُ أَحَدُكُمْ مِنْ يُخَالِلْ A person depends on the religion of his friend, so let one of you see his friends hanging out" Shahih, narrated by Imam Abu Dawud in his Sunan (4833), at-Tirmidhi in his Sunan (2379), and he said: "This hadeeth Hasan," and Imam Ahmad in his Musnad, 2/ 303, 334.

3.1.6 What is the impact of aggressive behavior?

Aggressive behavior can hurt both the psychic and physical. With the effects of aggressive behavior, children will have difficulty interacting with peers [9]. The effect of aggressive behavior affects their social interactions with peers and the function of children in emotional and behavioral development, but it also affects academic achievement. [10] Aggressiveness in childhood is a risk factor for future growth. Individuals accustomed to aggressive actions will form their pattern in solving problems more likely to use violence, and individuals become difficult to control emotions. Coping is less useful [11].

Aggressive behavior is predictive of delinquency in adolescence and adulthood, including dropping out of school and acting out behaviors.[8] Aggressive behavior and comorbid externalizing problems (i.e., disruptiveness, non-compliance, hyperactivity, impulsivity) during childhood have been found to predict a host of adjustment problems such as peer rejection and delinquency substance abuse, school drop-out, unemployment and depression [11].

Aggressive behavior in the view of Islamic perspective, shows that Islam strongly prohibits things that can harm others and harm themselves, said Allah surah An-Nisa: 111. It means: "Whoever sins, he does it for himself. and Allah is All-Knowing, All-Wise.” The impact of aggressive behavior, according to Islam, the individual will get sin and harm himself and the environment. The interpretation of the letter an-Nisa 111 can be interpreted with the verse has similarities in another letter, namely surah al-Anám 164, in the science of interpretation of this science is called muhasabah science, or it can also be included in the interpretation with the method maudhuí, with the understanding that an aggressive person will harm himself, someone who aggressively has a fear of having psychological problems, in Islam aggressive acts have a succession of impacts from which has the most impact, such as committing the murder described in QS al-Isra (17:33). Under it there is persecuting QS al-Shura (42: 40 and 42), harm in QS al-Baqarah (2:57), injustice in QS al-Zukhruf (43:72), theft in QS Joseph (12:75).
3.1.7 How to prevent aggressive behavior?

Aggressive behavior cannot be allowed, and it is necessary to try to control it so that there is no negative impact on the child that can continue into adulthood [19]. Here are some preventive measures in dealing with aggressive behavior problems and obtaining an earlier model of handling aggressive behavior, namely Islamic storytelling, good anger management, and Islamic counseling.

First, Islamic storytelling is the activity of listening to Islamic stories that instill excellent and bad teachings, which are prohibited and can be done by religious teachings, thus shaping one's morals to be fair and control behavior, not to commit aggressive behavior. Based on Solichah's research, which shows that listening to stories can overcome the emergence of aggressive behavior and teach social skills to children [20]. The result of Widayanti’s result [21] found that the habits of storytelling parents can prevent children's negative behavior in preschool age and form a child who has moral intelligence. In Islam, many stories of prophets can be used as role models for children as examples of positive behavior.

Second, the need to further research on the influence of good anger management. [22] In Islam, when anger is suppressed with patience, the person wins the fight against his impulses and desires[23]. In Islam, aggressive behavior is given a solution in the form of a ban on anger and strengthening the desire with extensively studied, from the verses of the Qur'an and hadiths of valid Bukhari, which are absolute truths and other hadiths with varying qualities. As in Surah Yusuf verse 53.

Third, Islamic counseling. Counseling in Islam is an activity to provide guidance, lessons, and guidelines to individuals who ask for advice (counselee) in terms of how a counselee should be able to develop the potential of his mind, psyche, faith, and belief and can overcome the problems of life and life properly and correctly independently paradigmatic to the Al-Qur'an and As-Sunnah of the Prophet Muhammad [25]. Based on Irwanto's research results, it was shown that the application of Islamic counseling to adolescents who behave aggressively is very impactful. Aggressive adolescents who are given Islamic counseling can change their mindset to practice social norms in Islam, namely responding to Hablun Minallah Wa Hablun Minannas and practicing Muslim personality or behavior. [26] Zubair dan Azhar [27] suggested several strategies to reduce aggressive behavior according to Islamic Sharia, namely (1) Prompting the Concept of believing in the hereafter, (2) Transcendent Decency and Forgiveness, and (3) Reconciling.

First, Prompting the Concept of believing in the hereafter. Al-Qur'an Al-Qur'an has informed us that we are responsible for what we do, for what we say. We will be asked on the Day of Judgment about all these activities. We will be rewarded if we use our organs and faculties in the best way and for the peace. And we will be penalized if we use them in the wrong way. The Holy Quran 50:18 and Quran: 17:36. Narrated Sahl bin Sa d: Allah's Messenger said, “Whoever can guarantee the chastity of what is between his two jaw-bones and what is between his two legs (i.e., his mouth, his tongue, and his private parts), I guarantee Paradise for him (Bukhåř, 1997).”

Second, Transcendent Decency and Forgiveness. Islam requires its followers to be polite when interacting with each other. If the people are hostile, then forgiveness is a basic value and principle that is always upheld in Islam. Rasulullah was often reminded and taught to seek great gifts from Allah, one being patient and forgiving others. Allah ordered the faithful believers to be patient at the time of anger and excuse those who badly treat them. Quran: 41:34 and Quran: 42:40.
Third. Reconciling, peace is one of the central teachings in Islamic teachings. The commandment always be at peace is not only found in the verses of the Qur'an but is also exemplified in the life of the Prophet.

3.2 Discussion

Aggressive behavior is behavior that aims to hurt others. These forms of aggressive behavior include physical, verbal, and relational. In Islam, aggressiveness is the actualization of spiritual disease, spiritually moves dynamically and keeps on moving, [28] the role of al-qalb, al-álaq and the nafs in the spiritual will determine the state of mind, which is the basis for every behavior that arises.

The explanation of the existence of these spiritual energies was explained by al-Ghazali (1058-1111) by illustrating below:

The soul is like land. Its fields are the two hands, two legs, and all the other parts of the body. The lord of the land is sexual desire (Shahwat), and the lust for aggression (ghadab) is the guardian. Al-Qalb is the king and al-áql is the prime minister. A king must consult with his ministers to make the landlord submit to the prime minister's order for the sake of the prosperity of the country. Thus al-Qalb always consults with al-áql to bring lust and ghazab under his command. On the other hand, if the mind is under al-ghadab and lust, then the soul is destroyed, and al-qalb becomes the wretched One in the hereafter.

Al-Ghazali, [29] The heart has naturally ready to accept inner vibrations of good and evil, the whisper of malaise and Satan, both fictions according to al-Ghazali, have an equally strong position in influencing spirituality. When both lust and ghazab are obeyed, then the devil has power over him, and negative behavior occurs, the devil builds up the influence of anxiety in the heart. If lust and ghazab are restrained, then the inner decision will appear positive.

Aggressive behavior is formed from biological and behavioral factors (environment). Islam is in line with the approach of psychology in terms of factors that influence aggressive behavior that comes from the environment, families with home metaphors, in this case as described in the Hadith of the Prophet (peace and blessings of Allaah be upon him) 'alaihi wa Sallam said: "Thou shalt not make your house like a tomb; Surely Satan is running away from the house which is recited in it." In his book, the Shahih, narrated by the Muslim Imam in his Shahih in Musafirin Prayer's book (1821). In another reference also described the environment as one of the factors that influence the behavior of a person, From Abu Hurairah, that the Prophet 'alaihi wa Sallam said: "A person depends on the religion of his friend, so let one of you see his friends hanging out" Shahih, narrated by Imam Abu Dawud in his Sunan (4833), at-Tirmidhi in his Sunan (2379), and he said: "This hadeeth Hasan," and Imam Ahmad in his Musnad, 2/ 303, 334.

This aggressive behavior makes it difficult to interact with peers. Problems in emotional and behavioral development also affect academic achievement because solving problems is done using violence. The impact of aggressive behavior, according to Islam, the individual will get sin and harm himself and the environment. The interpretation of surah An-Nisa 111 can be interpreted with a verse that has similarities in another chapter, namely surah al-Anám 164, in the science of performance this science is called Muhasabah science, or it can also be included in interpretation by the maudhúí method, with the understanding that someone is aggressive will harm himself, someone who is aggressive tends to have psychological problems, in Islam aggressive actions have an impact that is explained in a row from the One that has the most significant impact, such as committing the murder described in QS al-Isra (17: 33), then in
underneath there is persecuting QS al-Shura (42: 40 and 42), endangering in QS al-Baqarah (2: 57), injustice in QS al-Zukhruf (43: 72), theft in QS Yusuf (12:75).

One of the Islamic teachings to deal with aggressive behavior is Islamic storytelling, good anger management, and Islamic counseling. Anger is a predisposing factor for aggressive behavior, and anger is parallel to the impulse of aggression, so it is necessary to intervene in anger to reduce one's aggressive behavior. Good anger management. From an Islamic perspective, anger management can be done through ablation, zikr, Prompting the Concept of believing in the hereafter, Transcendent Decency and Forgiveness, and Reconciling.

4 Conclusion

Based on this research, it can conclude that the study of the Quran and Hadith on aggressive behavior correlates with the study of psychology, where aggressive behavior is a behavior that tends to be negative. The factors that influence this behavior are biological and environmental. If not prevented and dealt with quickly, this behavior will have a negative impact in the future. Aggressive behavior can be detrimental to himself as well as others. Therefore, in Islam, aggressive behavior is classified to the deeds of Dhalim, which in the sense of language means the closed path of truth. Several precautions can be taken in the view of Islam and psychology, namely Islamic storytelling, Islamic counseling, and good anger management through ablation, dhikr, Prompting the Concept of believing in the hereafter, forgiveness, and reconciles.

In the acknowledgment section, both psychology and Islam, both see aggressive behavior as negative behavior because it harms others, and if it is not prevented quickly, it will have a negative impact in the future. Islam's perspective from the Quran and Hadith are explained in the concept of psychology. For further research with the same topic can study with Islamic figures who are concerned with psychology studies. The author says thanks to reviewers and proofreaders and the team who help this article done.

References

Video Conferencing in Higher Education: a Case Study of Indonesian Lecturers

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Abstract. The global pandemic of COVID-19 impacts all sectors of human life, including education. The teaching processes previously done face to face in the classroom have to be conducted online. It increases the utilisation of video conferencing app in teaching activities replacing face to face meeting in higher education. This study aims to investigate lecturers' perspective regarding the use of video conferencing in Indonesian higher education. This study was conducted using a qualitative methodology within case study design. Three lecturers from different universities in Indonesia participated in this research study. To collect data, online semi structured interviews were done via WhatsApp. The collected data from the interviews were then evaluated using thematic analysis. The findings of this research show that the lecturers have positive attitudes towards the use of video conferencing in distance learning which they value due to the perceived benefits in terms of teaching creativity and enhancement of their technological knowledge. Although the lecturers encountered several challenges in using video conferencing in teaching, such as limited interaction and internet accessibility, they have their own strategies to minimise those issues. Having aimed to provide lecturers' perception into the use of video conferencing in higher education setting, the findings of this study offer several recommendation for educators, policy makers and future researchers.

Keywords: Conferencing, distance learning, teaching, higher education

1 Introduction

The enhancement of Internet and Communication Technology (ICT) in recent decades impacts the system of education. The teaching and learning activities now can be conducted virtually using some online learning platforms. Video conferencing is one of the online platforms used by educators. According to [3], video conferencing is a synchronous model of interaction between two or more people for interactive video, voice and data transfer. It can facilitate sharing of files, applications, and electronic workspaces [11]. This online platform has been gaining acceptance around the world, especially in the COVID-19 pandemic. Learning process, which is initially run in the classroom, due to the pandemic, has to be done online. Thus, educators are encouraged to use online platforms in conducting a teaching process.

Currently, video conferencing is one of the most prevalent online platforms used by the teachers to replace the face-to-face meeting [13]. It is because video conferencing can create an interesting and convenient distance learning and it makes it possible to deliver learning material in an interactive way through creative presentation [1]. Additionally, video conferencing apps, such as Zoom Meeting, Google Meeting and Webex allow teachers to connect with their
students without meeting physically [7]. Furthermore, according to [12], video conferencing can foster the learning independence of students. Using video conferencing also gives opportunities for teachers and students to develop their technological competencies [5]. Therefore, due to its advantages, this online platform becomes popular among educators.

However, along with the use of video conferencing in teaching and learning process, some issues emerge. Firstly, the quality of video conferencing system and bandwidth affect the level of interaction between teachers and students [7]. Secondly, the dominant role of teachers in the teaching process when using video conferencing contributes to the low involvement of students [4]. Thirdly, students’ learning styles and unfamiliarity with this new technology affect their learning motivation [3]. In addition, unstable internet connection is also a big challenge in applying video conferencing [8]. Thus, in order to apply video conferencing in teaching appropriately, those issues need to be considered.

Many research studies exploring the utilization of video conferencing in education context were conducted. For instance, [2] have done a research to find out challenges of video conferencing use in educational context in Africa. Also, [3] did a research study to investigate the students’ voice regarding the use of video conferencing in Turkey’s classroom. Results of [3] shows that most of students have a negative attitude towards the use of video conferencing. In contrast, research organized by [4], [7] and [14] found that students tend to have a positive perception regarding the use of video conferencing in distance learning. Nevertheless, studies in the field of video conferencing were much more focusing on learners’ perception, while studies investigating educators’ perception remain limited. Concerning to the problem, this research study, therefore, aims to investigate the lectures’ perspective of video conferencing use in Indonesian higher education context.

This study proposed a research question: how lecturers in Indonesia higher education perceive the use of video conferencing in teaching process? This question is designed to explore the lectures’ attitudes towards the use of video conferencing, specially, their voice in terms of benefits of this online platform. It also aims to explore the challenges faced by the lecturers when utilizing video conferencing in teaching and how they adapt with those issues. Addressing this area, this research seeks to fill the gaps within literature. The results of this study could inform other lecturers in Indonesia on how to apply video conferencing in teaching practices, encourage the policy makers and researchers to consider this teaching technique.

2 Method

A qualitative methodology within case study design is used in this research. This methodology is chosen because it emphasises the understanding of social reality by examining respondents’ interpretations. It is aligned with the study’s research question, which is formulated for an in-depth examination of Indonesian lecturers’ perceptions regarding the use of video conferencing in higher education.

2.1 Participant

This is a small-scale research study, so only three lecturers from different universities in Indonesia who have an experience in using video conferencing for educational purpose participated in this study. Participant A is a 30-years-old male with 8 months’ experience in using video conferencing in teaching. Participant B is a 27-years-old male who has 7 months
teaching experience utilising video conferencing. Additionally, participant C is a 28 years-old male with more than a year experience in using video conferencing in teaching practices. The participants were selected using purposive sampling.

2.2 Data collection

In terms of data collection, this study utilised an online semi-structured interview strategy. The participants were interviewed via WhatsApp by using an interview guide. This interview guide allows the researchers to openly prompt new question in order to find more information from the respondents and the respondents freely to answer based on their teaching context. Subsequently, the interviews were recorded to ensure all data from the interview was included in the analysis.

2.3 Data analysis

To analyse the data, a thematic analysis technique was applied in this study. Before analysing the data, the interview recordings were transcribed. The transcripts were then analysed through a series of coding and identification of several important themes that emerge from the interview transcripts.

3 Result and Discussion

3.1 Results

From the analysis of the interview transcripts, three main themes emerged: lecturers’ attitudes of video conferencing, benefits, challenges of video conferencing and adaptive action of the lecturers towards the potential obstacles.

First of all, all lecturers have a positive attitude regarding the use of video conferencing in higher education. It can be seen from their responses. For example, Participant B argued that ‘I enjoy using video conferencing because it gives me an opportunity to use new learning strategies and develop my teaching skill’. Participant C also mentioned that ‘I will use this online platform even the post-pandemic since I find this is useful, especially in this industrial revolution 4.0. Furthermore, all participants hope that the use of video conferencing can be optimised through the application of blended learning system in higher education. As argued by Participant A ‘I get used to video conferencing and I expect that Indonesian Higher Education will apply blended learning system by incorporating video conferencing’. Participant B also said that ‘I predict the video conferencing will be used more in the future through the blended learning system’.

Secondly, the respondents stated that video conferencing is beneficial in terms of developing their technological knowledge. For instance, Respondent A explained that ‘using video conferencing gives me a new knowledge and experience on how to use technology in teaching. Also, Respondent C said that ‘It gives me a priceless experience in terms of my skill in using technology’. Furthermore, video conferencing develops teaching creativity of the lecturers. As an example, Respondent B explained that ‘it enhance my teaching creativity in terms of preparing and creating learning materials’. Also, Respondent C mentioned that ‘using video conferencing challenges me to be creative’.
Thirdly, besides the benefits, the participant also encountered several challenges when using video conferencing. Participant A noted that ‘my interaction with my students is limited and students seem passive when using video conferencing. Participant B also explained that ‘my students participation is low, the discussion is dominated by same students all the time’ and Participant C said that ‘the students looks shy and no response when I ask them to give a question’. Furthermore, internet connection also becomes an issue in the use of video conferencing. All the participant admitted that students’ accessibility to the internet connection is a big challenge. For example, Participant A explained, my students frequently lose connection because of their connection’. Additionally, Participant C experienced that ‘not all my students can attend video conferencing due to the internet problem’.

Nevertheless, the participants have their own strategies to adapt with those obstacles. For example, Participant A argued that ‘to improve my students’ participation, I create interactive and interesting presentation. Also Participant B mentioned that ‘I use an online application to randomly chose my students to give opinion or question, so all students can participate’. In terms of internet connection, Participant C argued that ‘I make learning flexible, I do not force all my students to join video conferencing, only who have an internet connection’. In addition, Participant A said that ‘I gives longer assignment due date for my students, so they can do the assignment when they connect to the internet’.

3.2 Discussion

The result of this research study shows that all participants perceived the use of video conferencing positively because they enjoy using it and expected to apply the online platform in the future. This finding is consistent with some previous studies that also found that most of educators have a positive attitude regarding video conferencing use in education [1, 9, 11, 13]. According to [1], overall, teachers were happy with the use of video conferencing. [9] also argues that teachers believed that video conferencing is potential for future education. Additionally, [13] found that lecturers in Japan admit that video conferencing is an effective tool to help connect with their students in Australia.

In addition, lecturers in this study mentioned that video conferencing is useful to develop their technological skill. It is in line with the research finding of [12] that using video conferencing impacts the technological skill of teachers as well as students because they learn to use it and at the end of the they, they become familiar with the online application. Video conferencing also encourages their creativity as mentioned by the participants in this study. This support argument of [8, 5] who explained that using an online platform, such as video conferencing, educators need to be creative and innovative.

Furthermore, this study also found several challenges in utilising video conferencing; limited interaction and internet connection. Most of research studies [1, 2, 6 12, 13] experienced the issues. For example, [2] mentions that the most obvious challenge of video conferencing is the low participation and limited interaction of learners in discussion. Moreover, [13] argues that the learners look unmotivated to involve in the learning process. Additionally, [6] expressed that, using video conferencing should consider the internet availability since it is the main infrastructure for distance learning. However, in this study recommends several strategies explained by the participant to adapt with the issues which is creating interesting and flexible learning. Interesting learning could enhance students’ active participation, while flexible learning could accommodate students with limited access to the internet.
4 Conclusion

This study aimed to investigate lecturers’ perception regarding the use of video conferencing in Indonesian higher education setting. This study was conducted within qualitative case study design. The results of this study indicated that the three lecturers have a positive attitudes in terms of video conferencing use in teaching activities. It is because they found it beneficial in terms of development of their technological competence [5] and teaching creativity [1]. Although facing challenges; limited interaction [2] and internet connection [6], they have their own techniques to minimise those issues by implementing interesting and flexible learning.

This study has several implication for educational practice, research and regulation. This results of this study could be a consideration by other lecturers in using video conferencing, fill a gap within the video conferencing literature and encourage the policy makers to regulate the future use of video conferencing in educational sector. Nonetheless, the findings of this small-scale study are not able to be generalised because it only involved limited participants with specific context. Therefore, it is strongly suggested that the future studies are conducted using mixed method (qualitative and quantitative) involving a large number of participant, so the studies could provide fruitful and broad findings.

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References


The Psychological Disorders with Coping Mechanisms in Patients Chronic Renal Failure Who Undergoing Hemodialysis at PKU Muhammadiyah Gombong Hospital

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Abstract. Chronic renal failure is a kidney disease. Information concerning the relationship between psychological disorders and coping mechanisms in patients with kidney failure suffering from PKU Muhammadiyah Gombong Hospital. This research is a descriptive cross-sectional correlation study. The study was conducted on chronic patients with kidney failure who had hemodialysis in PKU Muhammadiyah Gombong Hospital. The sampling technique was simple random sampling in 75 people. The Research instruments used the Hospital Anxiety and Depression questioner, the Depression Anxiety and Stress Scale questionnaires and Coping Mechanism questionnaires. The results in this research of psychological anxiety disorder mostly experienced mild anxiety as many as 36 people (48.0%), the depressive disorder the most did not experience depression or normal depression as many as 37 people (49.3%), in the psychological stress disorder were experienced stress or normal stress as many as 35 people (46.7%) and the coping mechanism experienced the most adaptive coping mechanism level as many as 61 people (81.3%). This study indicates a relationship between psychological disorders and coping mechanisms in chronic renal failure patients who underwent hemodialysis (p-value = 0.037 <0.05). The results of this study are recommended for the administration of action for chronic renal failure patients who are undergoing hemodialysis therapy.

Keywords: Anxiety, depression, stress, coping mechanism, hemodialysis

1 Introduction

Chronic kidney disease is one of the world's high-financing health problems. Uremia discovery in the blood is one of the signs and symptoms of kidney disease. Uremia is the result of the inability of the body to maintain fluid and electrolyte metabolism and balance because of its progressive and irreversible impaired renal function [6]. Prevalence in the research of Kosasih, et al [7] states that the growth in the number of people with kidney failure in 2014 was 50% from the previous year, the world population of chronic kidney disease ranks 18th on the list of diseases that cause world death, more than 1.5 million people all over the world receiving treatment with dialysis.

According to the 2018 Basic Health Research results, chronic renal disease was diagnosed in Indonesians 15 years of age and reached 0.38 percent. In Indonesia, chronic kidney failure patients with hemodialysis showed a 19.3 percent increase in 2018 and hemodialysis patients increased by 0.42 percent in central Java compared with the previous year. Data from the
Indonesian Renal Registry [3] in 2018 indicated that 81.7% of patients with stage V chronic kidney illness, or stage V Chronic kidney disease, were diagnosed as main disease patients with hemodialysis in Indonesia in 2018, followed by 6%, namely acute renal failure/ARF.

To maintain the survival of patients with chronic renal failure, one of them is undergoing hemodialysis. Hemodialysis is to reduce levels of urea, creatinine and other toxic substances in the blood [8]. Patients undergoing hemodialysis therapy feel some discomfort. There is resistance to the condition, which results in conflict in the patient, usually caused by a situational crisis of death threats, and not knowing the end result of this therapy [18].

The psychological condition of patients with kidney failure will greatly affect the course of the disease and the patient's physical condition. According to Novitasari & Hidayati [9], there are several changes in psychological disorders that arise from kidney failure patients, namely anxiety, stress, and depression.

Patients with chronic renal failure need throughout their life to undergo regular hemodialysis therapy, every week for two sessions. This condition causes deep psychological disturbances. The psychological disorders experienced by patients with chronic kidney failure can affect their coping mechanisms.

The coping mechanism is one way to adapt to patients' problems by mobilizing sources of coping in the environment in the form of economic capital, problem-solving abilities, social support, and cultural beliefs [15]. The coping mechanisms shown by individuals can be adaptive or maladaptive.

Based on a preliminary study at PKU Muhammadiyah Gombong Hospital on February 3, 2020, 295 patients underwent hemodialysis. The results of the distribution of the HADS (Hospital Anxiety Depression) questionnaire from 5 people, 3 of whom experienced mild anxiety and 2 others did not experience anxiety, 2 people were not depressed, 2 experienced mild depressions and 1 experienced severe depression. Whereas for stress using the DASS 42 questionnaire (depression, anxiety, and stress) 4 experienced mild stress and 1 was not stressed. For coping mechanisms, 2 of them are less adaptive and 3 are adaptive.

Based on the above problems the problem can be formulated in the research: "Is there any relationship between psychological disorders or coping mechanisms in the PKU Muhammadiyah Gombong Hospital in kidney failure patients undergoing hemodialysis?"

This study aimed to provide information on the relationship between psychological disorders and coping mechanism of kidney failure patients in PKU Muhammadiyah Gombong Hospital with hemodialysis.

The benefits of this research can be used as an information source to provide comprehensive care in handling chronic psychological problems.

2 Method

The chosen research design was a quantitative research design with a cross-sectional approach to correlation research. Data were collected using the HADS (Hospital Anxiety and Depression) questionnaire, DASS 14 (depression, anxiety, and stress scale), and the Coping Mechanism questionnaire. The research results are presented in a correlative manner. This research was conducted in the Hemodialysis room at PKU Muhammadiyah Gombong Hospital. This research was conducted on 9 May 2020 to 15 June 2020. The population in this study was 295 patients at PKU Muhammadiyah Gombong Hospital. Samples were taken as many as 75 people with random sampling.
The inclusion criteria and exclusion criteria. The inclusion criteria included patients aged 25 years, patients who could read and write, and patients willing to be respondents. The exclusion criteria included patients with decreased consciousness, patients who could not read and write, and unwilling to become respondents.

3 Result and Discussion

3.1 Forms of psychological disorders in chronic kidney failure patients undergoing hemodialysis at pku muhammadiyah gombong hospital

3.1.1 Anxiety

The result Frequency Distribution of Psychological disorders (ANDESIA) in chronic kidney failure in PKU Muhammadiyah Hospital, describes on Table 1. Patients undergoing hemodialysis.

<table>
<thead>
<tr>
<th>No</th>
<th>Anxiety Level</th>
<th>Frequency</th>
<th>Presentation (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Normal</td>
<td>30</td>
<td>40.0</td>
</tr>
<tr>
<td>2</td>
<td>Mild Anxiety</td>
<td>36</td>
<td>48.0</td>
</tr>
<tr>
<td>3</td>
<td>Moderate Anxiety</td>
<td>7</td>
<td>9.3</td>
</tr>
<tr>
<td>4</td>
<td>Severe Anxiety</td>
<td>2</td>
<td>2.7</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>75</td>
<td>100</td>
</tr>
</tbody>
</table>

Based on table 1. it shows that hemodialysis patients at PKU Muhammadiyah Gombong mostly experienced mild anxiety, namely 36 people (48.0%) and the least was severe anxiety, namely 2 people (2.7%).

3.1.2 Depression

Patients undergoing hemodialysis in the Muhammadiyah Gombong Hospital PKU Frequency Distribution of Psychological Disorders (Depression) in Chronic Kidney Failure, Table 2.

<table>
<thead>
<tr>
<th>No</th>
<th>Depression Level</th>
<th>Frequency</th>
<th>Presentation (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Normal</td>
<td>37</td>
<td>49.3</td>
</tr>
<tr>
<td>2</td>
<td>Mild Depression</td>
<td>28</td>
<td>40.0</td>
</tr>
<tr>
<td>3</td>
<td>Moderate Depression</td>
<td>7</td>
<td>9.3</td>
</tr>
<tr>
<td>4</td>
<td>Severe Depression</td>
<td>3</td>
<td>1.3</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>75</td>
<td>100</td>
</tr>
</tbody>
</table>
Based on table 2, it shows that hemodialysis patients at PKU Muhammadiyah Gombong mostly did not experience depression or normal, namely 37 people (49.3%), and the least was severe depression, namely 3 people (1.3%).

3.1.3. Stress

Table 3 describes Frequency distribution of psychological disorders (stress) in chronic kidney failure in the PKU Muhammadiyah Gombong hospital.

Table 3. Frequency Distribution of Psychological Disorders (Stress) in Chronic Kidney Failure Patients undergoing Hemodialysis at PKU Muhammadiyah Gombong Hospital (N = 75)

<table>
<thead>
<tr>
<th>No</th>
<th>Stress Level</th>
<th>Frequency</th>
<th>Presentation (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Normal</td>
<td>35</td>
<td>46.7</td>
</tr>
<tr>
<td>2.</td>
<td>Mild Stress</td>
<td>29</td>
<td>38.7</td>
</tr>
<tr>
<td>3.</td>
<td>Moderate Stress</td>
<td>8</td>
<td>10.7</td>
</tr>
<tr>
<td>4.</td>
<td>Severe Stress</td>
<td>3</td>
<td>4.0</td>
</tr>
<tr>
<td>5.</td>
<td>very severe stress</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>75</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Based on table 3, it shows that hemodialysis patients at PKU Muhammadiyah Gombong mostly did not experience stress or normal, namely 35 people (46.7%) and the least experienced severe stress (0%).

3.2. Coping mechanism of chronic kidney failure patients underwent hemodialysis at pku muhammadiyah gombong hospital

The coping mechanism in PKU Muhammadiyah Gombong Hospital for chronic kidney failure patients underwent hemodialysis. Table 4 Describes

Table 4. Frequency Distribution of Coping Mechanisms for Chronic Kidney Failure Patients undergoing Hemodialysis at PKU Muhammadiyah Gombong Hospital (N = 75)

<table>
<thead>
<tr>
<th>No</th>
<th>Coping Mechanism Level</th>
<th>Frequency</th>
<th>Presentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Adaptive</td>
<td>57</td>
<td>76.0</td>
</tr>
<tr>
<td>2.</td>
<td>Less Adaptive</td>
<td>15</td>
<td>20.0</td>
</tr>
<tr>
<td>3.</td>
<td>Maladaptive</td>
<td>3</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>75</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Experienced adaptive coping mechanisms, namely 61 people (81.3%) and less adaptive, namely 14 people (18.7%). While patients at the level of maladaptive coping mechanisms, namely 0 people (0%).

3.3. Relationship between psychological disorders and coping mechanisms in chronic kidney failure patients underwent hemodialysis at pku muhammadiyah gombong hospital

Table 5 shows a relationship between psychological disorders and mechanisms of coping for patients suffering from chronic kidney failure at PKU Muhammadiyah Gombong Hospital.
Table 5. Relationship between Psychological Disorders and Coping Mechanisms in Chronic Kidney Failure Patients Underwent Hemodialysis at PKU Muhammadiyah Gombong Hospital (N = 75)

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Coefficient Correlation</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coping Mechanisms</td>
<td>75</td>
<td>0.358</td>
<td>0.037</td>
</tr>
<tr>
<td>Physiology Disorder</td>
<td>75</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Based on table 5 it can be seen that there is a relationship between coping mechanisms and psychological disorders in chronic renal failure patients undergoing hemodialysis with a p-value = 0.037 <0.05 with a correlation value of 0.358 indicating that the strength of the correlation is sufficient (0.26-0.50)

3.4. Discussion

3.4.1. Forms of psychological disorders in patients with chronic kidney failure who underwent hemodialysis at pku muhammadiyah gombong hospital

Due to the results of this study, more psychological disorders with a mild anxiety class were reported in patients with chronic kidney failure with 36 persons (48.0 percent). These results indicate that the patient is not too worried about his condition because most patients get good support from family, relatives and fellow hemodialysis.

This study supported the results of Kamil's research [5], which showed that 183 out of 183 respondents (100%) experienced mild anxiety. The results of another study conducted by Ratnawati [11] showed that mild anxiety was 6 people (40.0%) out of 15 respondents, while moderate anxiety levels were 4 people (26.7%), severe anxiety levels were 3 (20.0%), and normal as many as 2 people (13.3%).

The study results showed that most depressed psychological disorders did not experience depression or were normal as many as 37 people (49.3%). This shows that the patient can accept his condition is undergoing hemodialysis and the patient has resigned to what they are experiencing.

The results of this study are in line with the research of Ruza [13], which states that of the 30 respondents of chronic kidney failure patients who did not experience depression or normal, 22 (73.33%).

The majority of patients with chronic renal failure in psychological stress disorder were normal stressors or not experiencing stress, as many as 35 people (46.7%). This shows that most patients with kidney failure are accustomed to hemodialysis for a long time. The majority are familiar with the hemodialysis procedure so that stressor control can be handled.

Ardila’s research [1] supports the results of this study, 2014 which states that 16 patients do not experience stress or are said to be normal (34.8%) out of 46 people consisting of 14 people with mild stress (30.4%), 14 people with moderate stress (30.4%), and severe stress 2 people (4.3%).

3.4.2. Coping mechanism of chronic kidney failure patients undergoing hemodialysis at PKU Muhammadiyah Gombong hospital

Research results indicated that the coping mechanism in hemodialysis patients was adaptive: 57 people (76.0%), 15 less adaptive people (20.0%) and 3 people with maladaptive diseases (4.0 percent). According to researchers, patients with chronic kidney failure who experience an
adaptive coping mechanism can control their emotions. This shows that many chronic kidney
failure patients undergoing hemodialysis can receive support from others [15].
This research is in line with Fay's research [2], out of 36 respondents experienced more
adaptive coping mechanisms as many as 28 people (77.8%).

3.4.3. Relationship between psychological disorders and coping mechanisms in chronic kidney failure patients undergoing hemodialysis at PKU Muhammadiyah Gombong hospital

The results for the study on the relation between psychiatric disorders and coping mechanisms in patients undergoing hemodialysis obtained p-value = 0.037 <0.05, meaning that psychiatric disorders are associated with coping mechanisms in PKU Muhammadiyah Gombong Hospital patients with chronic kidney failure suffering from hemodialysis. Hemodialysis patients experience psychological problems such as anxiety, depression, and stress and physical problems due to their condition. In addition, support from family and people around the limited life expectancy causes patients to have negative feelings, leading to negative coping mechanisms.

Under the above conditions, theory and facts are agreed where the coping mechanism is
necessary to resolve a problem. The application of coping mechanisms depends on the past experience of the patient [10]. Most patients with hemodialysis have a coping mechanism that is less adaptive because of fear in itself and inadequate thinking.

In this study supported by Ruza [13], the results were that there was a relationship between coping mechanisms and psychological disorders in the depression category with chi-square analysis, the p-value was 0.046 (<0.05). There is a significant relationship between coping mechanisms and depression levels in chronic renal failure patients undergoing hemodialysis.

Another study from Sartika [14] showing a link between coping mechanisms and mental disorders in the anxiety category and the results of a statistical test of the Spearman rank, p-value = 0.000 (<0.05). Thus, Ha is accepted, which means that there is an important relation between coping and anxiety in patients undergoing hemodialysis who experience chronic renal failure.

The results of Vani's 2015 research [19] show that Dr M Djamil Padang's research showed a connection between coping mechanisms and psychological disorders within the stress category with the p-value chi-square statistical test = 0.000 < 0.05 showed that the coping mechanisms have an important link with the stress levels in the chronic renal failure category.

In the conditions above, it can be concluded that the coping mechanisms that are well utilized can help patients develop adaptive coping mechanisms so that patients can cope with their psychological disorders. The lower the psychological disorder, the better the coping mechanism is carried out.

4 Conclusion

Based on the results of research that researchers have conducted, the following conclusions can be drawn:
- The level of psychological disorders in patients with hemodialysis with chronic renal failure, the majority of anxiety categories experienced mild anxiety as many as 36 people (48.0%),
37 people experienced normal depression in the major depression category (49.3%). The majority stress category experienced normal stress as many as 35 people (46.7%).
- The coping mechanism experienced by chronic renal failure patients undergoing hemodialysis had the highest level of the adaptive coping mechanism as many as 57 people (76.0%).
- A relationship exists between coping mechanisms and psychological disorders in patients suffering from p-value hemodialysis in chronic renal failure = 0.037 <0.05

References


Al Qur’an Healing Therapy Increases Letdown Reflex in Breastfeeding Mothers

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Faculty of Health Sciences’ Aisyiyah University Yogyakarta Indonesia¹,²

Abstract. Breast milk is the best food source for the baby’s growth and development. However, in practice, not all mothers provide exclusive breastfeeding for up to 6 months for various reasons, including the reduced of breast milk production. The relaxation method used is non-pharmacological therapy. This study aims to determine the effect of Al-Quran Healing relaxation therapy on Letdown Reflex in breastfeeding mothers. This research method was a quasi-experimental one group pre-posttest design. Purposive non-probability sampling technique was used for sample selection. The research samples used were 15 breastfeeding mothers. The first data collection tool was a questionnaire on the demographic data of the respondents and the second was about the Letdown Reflex assessment. Al-Quran Healing therapy intervention was given for three days with a Letdown reflex assessment before and after the intervention administration. Letdown reflex assessment before the intervention showed that there were 5 respondents (33.3%) with a poor category and 10 respondents (66.7%) with a good category. After the intervention, it was found that all mothers, that were 15 respondents (100%), had a good Letdown reflex assessment. The results of the analysis showed a p-value of 0.001 (<0.005), which meant that there was an effect of giving Al-Quran Healing therapy on the frequency of Letdown Reflex. There was a difference between the letdown reflex before and after the intervention.

Keywords: Therapy, Al-Quran healing, letdown reflex, breastfeeding mothers

1 Introduction

The Indonesia government strongly supports the exclusive breastfeeding movement. This is indicated by the Decree of the Minister of Health of the Republic of Indonesian concerning exclusive breastfeeding for infants in Indonesia [1]. According to the Indonesia Pediatric Society, these two policies are an effort to regulate various matters regarding exclusive breastfeeding including the application of 10 Steps to Successful Breastfeeding in all lines of health services in Indonesia [2]. In the celebration of World Breastfeeding Week 2017, breastfeeding is echoed as one of the keys to the success of the Sustainable Development Goals (SDGs) in 2030. All parties are invited to work together to support and participate in breastfeeding [3].

Various studies mention that exclusive breastfeeding provides benefits not only for babies but also for breastfeeding mothers. The many benefits of exclusive breastfeeding are not in line with the targets of exclusive breastfeeding. This is indicated by the achievement of 33.5% which is still far from the target of 80% [4]. Various factors are associated with exclusive breastfeeding, including the tradition of feeding babies in families and communities, inadequate
sources of information from husbands, families, and health workers, the mother's decision to provide complementary feeding when the baby is fussy with the perception of insufficient breast milk to meet the baby's needs [5].

Every mother is obliged to provide breast milk except for mothers or babies who have special conditions such as a dead baby or a mother who is separated from her baby. This shows that breast milk is the right of every baby born. Breast milk is known as the best food source for the baby's growth and development. However, in practice, not all mothers provide exclusive breastfeeding for up to 6 months for various reasons, including the reduced of breast milk production. One technique that can be used to increase breast milk production is to stimulate the mother's body's decline reflex. The relaxation method used is non-pharmacological therapy, which theoretically is a method that can be used to stimulate breastfeeding reflexes to increase breast milk production. The results of other studies indicated that one of the factors related to mother's breastfeeding behavior was maternal self-efficacy. This self-efficacy is influenced by the mother's perception of the adequacy of breast milk produced to meet the nutritional needs of the baby [6].

Based on interviews conducted with several previous mothers, they said they did not know about the term letdown reflex. After being given an explanation of the signs of letdown reflex, they finally understood. Two mothers said that while breastfeeding they felt the letdown reflex was quite good, 3 more people said they didn't really feel it and 4 others said they didn't really pay attention to it. Efforts are made to increase the letdown reflex, such as eating enough before breastfeeding, listening to music and the Quran. A mother tells her experience of her first child who has not been able to breastfeed properly, is currently her second child and hopes to provide exclusive breastfeeding. This study aims to determine the effect of Al-Quran Healing relaxation therapy on Letdown Reflex in breastfeeding mothers.

2 Literature Review

Letdown reflex is a sign that the milk is ready to flow so that the breastfeeding process is easier. The signs of Letdown reflex are ticklish or tingling feelings in the breasts, pressure on the breasts, breasts feel full, the mother feels thirsty and even milk drips into the breast that the baby does not suck. Letdown reflex can occur when the mother hears, sees or even thinks of her baby. Letdown reflex is triggered by touching the breast in the nipple area [7].

There was a study in India on the effect of back massage on the increase of letdown reflex in post-cesarean section mothers. The research was a quantitative quasi-experimental research with non-equivalence control group design. Purposive non-probability sampling technique was used for sample selection. There were 10 samples for the experimental group and 10 samples for the control group from two different settings. At the pre-assessment, in the experimental and control groups, 30% of mothers had poor Letdown reflex and 70% had excellent Letdown reflex. The results of the assessment showed that there was a significant increase in the Letdown reflex in the experimental group [8].

Other studies on the effect of oxytocin massage on letdown reflex were conducted in Indonesia. This quasi-experimental research employed a pretest-posttest one-group design. The samples in this study were all women who were giving birth as many as 30 respondents. The technique of collecting data was by giving a questionnaire before doing the massage and after the massage. The results showed that before the stimulating massage of oxytocin, 20 mothers (66.7%) had less active letdown reflex and 10 mothers (33.3%) had active letdown reflex. After
doing oxytocin-stimulating massage, 19 respondents (63.3%) had increased active letdown reflex and 11 respondents (36.7%) had less active letdown reflex. The results obtained a p value = 0.00 (<0.005) which meant that there was an effect of oxytocin-stimulating massage on letdown reflex in postpartum mothers [4].

Reflection sound that is played Qur'an can help reduce tension or stress. Endorphin hormones naturally be active with reduced stress, a sense of calm and relaxed it would appear to be able to switch maternal anxiety and psychological tension concept of relaxation therapy Qur'an is doing distraction to the feelings that interfere with breastfeeding mothers in the process, for example anger, emotionally unstable, anxious, or fearful [5].

3 Method

This study employed a quasi-experimental one group pre-posttest design. Purposive non-probability sampling technique was used for sample selection. The research samples were 15 breastfeeding mothers. Criteria for respondents in this study were breastfeeding mothers with experiences of first, second or more children. The first data collection tool was a questionnaire on the demographic data of the respondents and the second was about the Letdown Reflex assessment. The intervention of Al-Quran Healing therapy with a duration of 30 minutes was given for three days with a Letdown reflex assessment before and after giving the intervention.

Surah Ar-Rahman is the 55th chapter which consists of 78 verses, in which there is a repetition of the verse 31 times which flows so beautifully and soothes the heart, this verse which means "then which blessings of your Lord do you deny?" The verse describes mercy. Allah to His servants, by giving unlimited favors to His servants both in this world and in the hereafter. The provision of healing Al-Quran therapy using the recording of the letter Ar-rahman. The recording of the Surah Al-Rahman is listened to for 30 minutes before breastfeeding. Therapy is carried out for 3 days. The letdown reflex assessment was carried out before doing the first therapy and was reassessed on the third day using semi-structured questions about the signs of letdown reflex such as a pinching feeling in the breast, the breast feeling full and milk coming out of the side of the breast that is not being used. pump with. This response was assessed with the guidelines given, namely Strong feeling was given a score of 3, Medium feeling was given a score of 2, Mild feeling was given a score of 1, the overall score was interpreted as follows 3 as a bad letdown reflex, 4-8 as a good letdown reflex, 9 as a reflex very good letdown. Data analysis used was univariate with frequency distribution of respondent characteristics and letdown reflex assessment before and after intervention. Bivariate data analysis was carried out to determine the difference in the letdown reflex assessment before and after the Qur'an healing intervention was given.

4 Result and Discussion

4.1 Results

The characteristics of the respondents indicated that 14 mothers (93.3%) aged 20-35 years, 11 respondents (73.3%) had bachelor degree, 9 respondents (60%) did not work. Mothers’ characteristics based on parity showed that 7 respondents (46.7%) with multiparous, and 12 respondents (80%) had a history of normal delivery. The characteristics of babies based on age
showed that 9 respondents (60%) had a baby aged 1-2 months, 9 respondents (60%) had male baby and 13 respondents (86.6 %) had a history of birth weight between 2500-4000 grams.

Table 1. Frequency distribution of respondent characteristics (n=15)

<table>
<thead>
<tr>
<th>No</th>
<th>Characteristics</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>20-35 years</td>
<td>14</td>
<td>93,3</td>
</tr>
<tr>
<td></td>
<td>36-45 years</td>
<td>1</td>
<td>6,7</td>
</tr>
<tr>
<td>2</td>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>4</td>
<td>26,7</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>11</td>
<td>73,3</td>
</tr>
<tr>
<td>3</td>
<td>Occupation</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Unemployed</td>
<td>9</td>
<td>60,0</td>
</tr>
<tr>
<td></td>
<td>Employed</td>
<td>4</td>
<td>40,0</td>
</tr>
<tr>
<td>4</td>
<td>Birth history</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Normal</td>
<td>12</td>
<td>80,0</td>
</tr>
<tr>
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<td>Sectio caesarea</td>
<td>3</td>
<td>20,0</td>
</tr>
<tr>
<td>5</td>
<td>Parity</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Primipara</td>
<td>5</td>
<td>33,3</td>
</tr>
<tr>
<td></td>
<td>Multipara</td>
<td>7</td>
<td>46,7</td>
</tr>
<tr>
<td></td>
<td>Grandemultipara</td>
<td>3</td>
<td>20</td>
</tr>
<tr>
<td>6</td>
<td>Age of the baby</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1-2 month</td>
<td>9</td>
<td>60,0</td>
</tr>
<tr>
<td></td>
<td>3-4 month</td>
<td>3</td>
<td>20,0</td>
</tr>
<tr>
<td></td>
<td>5-6 month</td>
<td>3</td>
<td>20,0</td>
</tr>
<tr>
<td>7</td>
<td>Sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>6</td>
<td>40,0</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>9</td>
<td>60,0</td>
</tr>
<tr>
<td>8</td>
<td>Newborn weight</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>&lt; 2500 gram</td>
<td>1</td>
<td>6,7</td>
</tr>
<tr>
<td></td>
<td>2500-4000 gram</td>
<td>13</td>
<td>86,7</td>
</tr>
<tr>
<td></td>
<td>&gt; 4000 gram</td>
<td>1</td>
<td>6,7</td>
</tr>
</tbody>
</table>

Table 2. Frequency distribution of letdown reflex assessments before and after intervention (n=15)

<table>
<thead>
<tr>
<th>Letdown reflex</th>
<th>Before intervention</th>
<th>After intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Bad</td>
<td>5</td>
<td>33,3</td>
</tr>
<tr>
<td>Good</td>
<td>10</td>
<td>66,7</td>
</tr>
</tbody>
</table>

Letdown reflex assessment before the intervention showed that there were 5 respondents (33.3%) with a poor category and 10 respondents (66.7%) with a good category. After the intervention, it was found that all mothers, that were 15 respondents (100%), had a good Letdown reflex assessment. The results showed that there was no decrease in the Letdown reflex value before the intervention and after the intervention, which meant that all respondents experienced an increase in the Letdown reflex value.

Table 3. The results of the analysis of the effect of healing Al-Quran therapy on letdown reflex in breastfeeding mothers

<table>
<thead>
<tr>
<th>Letdown reflex</th>
<th>Mean</th>
<th>p-value</th>
</tr>
</thead>
</table>
Before intervention | 0,00 | 0,001
After intervention | 8,00

The results obtained a p-value: 0.001 (<0.05), which meant that there was a difference in the Letdown reflex value before and after the intervention. Healing Qur'an therapy affects the letdown reflex in nursing mothers.

4.2 Discussion

In the mother's body, there are two hormones that directly affect the breastfeeding process, that are prolactin and oxytocin. A number of other hormones, such as estrogen, are indirectly involved in ion loss [9]. When the baby is breastfed, sensory impulses travel from the nipple to the brain. In response, the anterior lobe of the pituitary gland secretes prolactin and the posterior lobe secretes oxytocin. Oxytocin makes myoepithelial cells around the alveoli contract. This allows the breast milk, which collects in the alveoli, to flow and fill the channels [10]. The oxytocin reflex is also sometimes called the "let-down reflex" or the "milk ejection reflex." Oxytocin is produced faster than prolactin. It keeps the milk that is already in the breast flowing for current breastfeeding, and helps the baby get breast milk easily. Oxytocin starts working when the mother expects to breastfeed and when the baby is breastfeeding. Reflex becomes conditioned on the mother's sensations and feelings, such as touching, kissing or seeing her baby, or hearing her baby cry, or thinking about it with love. If a mother is experiencing severe pain or emotional distress, the oxytocin reflex can be inhibited, and the breast milk suddenly stops flowing properly. If she gets support and feels helped to feel comfortable and let the baby continue to breastfeed, the milk will flow again [7].

The letdown reflex is also known as the flow reflex or oxytocin reflex or the release of breast milk. The letdown reflex is greatly influenced by the presence of the hormone oxytocin. This hormone has increased significantly since the start of pregnancy. Postpartum mothers, on the first and second days, are still recovering their genital organs (early puerperium) so that mothers still tend to focus on recovering themselves [4]. The factor that obstructs the emergence of letdown reflex is stress. Stress is caused by biological factors (reproductive organ recovery) and psychological factors (taking in phase). When breastfeeding mother is stressed, there will be a blockade of the letdown reflex. This is due to the release of adrenaline (epinephrine) which causes vasoconstriction of the alveoli blood vessels, so there is a little hope that oxytocin can reach the target of myoepithelial organ. Since the letdown reflex is incomplete, there will be a buildup of milk in the alveoli, which clinically appears enlarged breasts. Large breasts can result in abscesses, failure to breastfeed and pain. This pain will lead to stress again for the mother so that the stress will increase. Another study conducted in India regarding letdown reflex with different interventions, that was the provision of back massage, concluded that there was a significant increase in the Letdown reflex value in the experimental group compared to the control group [8]. The results showed that there were differences. The concept of Al-Qur'an relaxation therapy is to distract the feelings that disturb the mother during the breastfeeding process, such as anger, unstable emotions, anxiety, or fear. The sound of reflection played by the Koran can help reduce tension or stress. Endorphin hormones naturally become active with reduced stress, a sense of calm and relaxation will appear to be able to divert maternal anxiety and psychological tension. The concept of Koran relaxation therapy is to disturb feelings that disturb the mother in the breastfeeding process, for example anger, emotionally unstable, anxious, or fear, which would create a good letdown reflex. Based on the results of this study, it is hoped that the Koran healing therapy can be an alternative new method to support the
success of exclusive breastfeeding for breastfeeding mothers. The results of this study cannot be generalized to all breastfeeding mothers, because the sample size in this study is small.

5 Conclusion

There is a difference in the letdown reflex before and after the intervention of the Al Qur’an healing for breastfeeding mothers. Healing Qur’an therapy affects the letdown reflex in nursing mothers.

Acknowledgements

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References

Utilization of the Wondershare Filmora Application in Compiling Arabic Teaching Materials Based on Local Culture

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Abstract. Arabic is one of the international languages that is widely studied and used in various parts of the world, including Indonesia. The government determines Arabic as a foreign language that must be mastered by students who study in Islamic-based educational institutions, such as Islamic universities. There are many obstacles that occur in the field related to the Arabic learning process, including the unsuitability of the teaching materials used with the situations and conditions of students. The use of video editing applications such as Wondershare Filmora is expected to improve the ability of students in Arabic, especially combined with a local cultural approach in the process of compiling teaching materials. The preparation of Arabic teaching materials based on local culture utilizes the Wondershare Filmora application in its presentation process with the aim of increasing students' interest and ability to speak Arabic. This study uses the Research and Development method by carrying out the method proposed by Borg and Gall. With the preparation of Arabic teaching materials which contain local culture-based material and compiled using the Wondershare Filmora application, it is hoped that students will be able to use simple Arabic in daily communication or as the language of instruction in the learning process.

Keywords: Arabic teaching materials, wondershare filmora, local culture, arabic language learning, interactive learning videos

1 Introduction

Arabic as one of the major languages in the world spoken by approximately 200 million people of the world has been present in Indonesia since several centuries ago as the entry and spread of Islam in Indonesia. The position of Arabic for Indonesian people is like Indonesian as the first language, it is integrated with the life of the majority of Indonesians who are Muslims, because it is undeniable that Arabic is the language of the Holy Qur’an [1].

The existence of Arabic language is very significant, causing many educational institutions both formal, non-formal, and informal require their students to learn every aspect related to Arabic. Starting from grammar, mastery of language skills to being able to communicate in Arabic.

One educational institution that requires its students to master Arabic is the Islamic College. Not only students from Arabic language courses, but all students from various courses regardless of their educational background [2]. There are many challenges faced by educators and students during the Arabic learning process, especially by IAIM Sinjai students. There are
several problems that become major obstacles for them in mastering Arabic, including: the use of traditional learning media (books and blackboards), the lack of use of available learning facilities and infrastructure, and the content of teaching materials that are far from student life.

The development of technology-based teaching materials becomes a necessity so that the learning process can continue properly. In addition, materials or teaching materials presented with the proper use of technology is considered to be able to increase the motivation of students in following the learning and accelerate the understanding and mastery of the material set [3]. The presence of Covid-19 in Indonesia since 2020 has also added to problems in the learning process. The learning process, which could initially be carried out face-to-face, must be replaced with online learning. This model of learning system "forces" educators and students to master various cutting-edge learning technologies. As explained Wildana et al in their journal [3]. Many applications can be used for the preparation of interactive teaching materials, either in the form of audio, visual, or audio visual. One of them is Wondershare Filmora, a software or video editor application designed to create videos simply and easily [4]. In this application there are various tools that can be used by educators to develop an interactive material, such as creating interesting intros, adding videos, images and background that can be combined to become a learning video that is able to deliver materials effectively and efficiently.

The majority of Arabic teaching materials in Indonesia, especially for the college level are still oriented towards teaching materials originating from the Middle East such as Al ‘Arabiyyah Baina Yadaik. The use of this teaching material poses its own problems for students, namely the difficulty of the process of using materials in the daily communication process, because many of the vocabulary and expressions used are not in accordance with the situation and conditions of students in Indonesia. This condition makes contextual approach important to be considered in the process of preparation of teaching materials. One type of contextual approach that can be utilized is the use of local cultural elements in the content of the material to be presented, both in the form of audio, visual and audio visual [5]. Based on the various conditions and problems above, it can be understood that learning in this pandemic era can be carried out optimally by using appropriate technology, such as for the preparation of audio-visual based teaching materials by utilizing the Wondershare Filmora application. In addition, to achieve the goal of learning Arabic as a communication tool, the use of local cultural elements in the preparation of local culture is expected to be one of the many solutions to improve the quality of Arabic language education in Indonesia. Therefore, this study aims to determine the effect of the use of the Wondershare Filmora application in the preparation of Arabic language teaching materials based on local culture.

2 Method

This type of research is research that combines qualitative and quantitative or R&D approaches. The development of this teaching material is carried out by following the development flow of Borg and Gall which consists of 10 steps. However, researchers only use a few steps, namely (1) Needs Analysis (2) Planning, (3) Design Development (4) Trial (5) Revision (6) Trial and (7) Final Revision. The development flow proposed by Borg and Gall is expected to be able to assist researchers in compiling valid teaching materials according to student needs. This product was tested to students of Islamic Religious Education study program Of Muhammadiyah Sinjai Islamic Institute with a total of 27 people. Research data collected using several research instruments, namely observation, interview, and test. Observations and
interviews are conducted to find out the response of research objects to the products developed. The test was conducted twice, namely pre-test and post-test to find out the success rate of teaching materials in improving students’ understanding of Arabic.

3 Result and Discussion

3.1 Results

Based on the observations and interviews at the beginning of the study, it is known that students use teaching materials published in Medina. This book is compiled for non-Arabic in general and uses Arabic as the language of instruction, whereas the majority of students do not yet have a basis in Arabic, so they have difficulty in using the book let alone understand it (see Figure 1). This book consists of several parts, but pai students at IAI Muhammadiyah Sinjai only use the first part (see Figure 2).

The picture above shows an example of an Arabic conversation discussing a person’s home region. One of the areas mentioned is Syria and Madinah Munawwarah (see Figure 3). This teaching material intended for non-Arabic uses Arabic as the language of instruction in all parts of the material, so that novice learners have difficulty in understanding the content of the material (see Figure 4). The material is arranged by prioritizing aspects of local culture, namely by including objects, habits, names, and circumstances commonly encountered by everyday students (see Figure 5).
Fig. 3. Introductory Language spoken

Fig. 4. Material Development Results

Fig. 5. Video Editing Process
The material that has been prepared before is combined and edited by using wondershare filmora application to produce an interactive learning video that can be used to deliver the material during online learning.

Based on pre-test and post-test tests conducted on PAI IAI Muammadiyah Sinjai students, it is said that there is a significant influence on students' Arabic learning outcomes by using materials presented in the form of interactive teaching videos.

Pre-test and post-test test results are analyzed using Paired Samples T Test test contained in SPSS 20 application (See Table 1).

Table 1. Pre-test and post-test results

<table>
<thead>
<tr>
<th>No</th>
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<tr>
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<tr>
<td>27</td>
<td>65</td>
<td>80</td>
</tr>
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</table>

Table 2. Paired samples statistics

<table>
<thead>
<tr>
<th>Paired Samples Statistics</th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre test</td>
<td>70,67</td>
<td>27</td>
<td>7,766</td>
<td>1,495</td>
</tr>
<tr>
<td>Post test</td>
<td>83,04</td>
<td>27</td>
<td>4,485</td>
<td>0,863</td>
</tr>
</tbody>
</table>
Based on the results of the Paired Samples Test on Table 4, it can be known that the use of Arabic teaching materials designed by utilizing the wondershare filmora application and incorporating local cultural elements is able to give a significant influence on the learning outcomes of PAI IAI Muhammadiyah Sinjai students.

### 3.2 Discussion

The preparation of Arabic language teaching materials for non-Arabic language education study programs using wondershare filmora application combined with local cultural approach is able to improve students' understanding and ability in using Arabic as a simple communication language. This result is in accordance with what Andrea Hall stated in her article that the use of interactive applications, both in the form of learning videos and social media, is able to improve students' ability to master a material [6].

Wondershare Filmora app has a variety of simple features that can be understood and used by various circles. Among these features are (1) imported files that serve to add images, sounds or videos needed, (2) effects. This feature can be used to add an interesting impression of the video made, (3) Transition, which can be used to arrange various materials needed so that it looks natural and attractive. The existence of these features can be used to make the learning process more effective and enjoyable [7].

Local culture as part of contextual approach will give more meaning to students in understanding the material taught. This is because the material is in accordance with the lives and habits of students every day, such as the use of regional names, street names, food, and places around the student environment [8]. In addition, the use of mother tongue as an introductory language can help students who have no basis in Arabic to understand and apply the materials taught [9].

The use of learning videos designed with wondershare filmora application and local cultural approach received a positive response from students as seen from the results of pre-test and post-test tests that showed an increase in student learning outcomes after using interactive learning videos in the learning process.
4 Conclusion

The use of wondershare filmora application and local cultural approach in the preparation of Arabic teaching materials for PAI IAI Muhammadiyah Sinjai students can improve the effect and efficiency of the Arabic learning process. Lecturers and other educators can use this application to increase students' learning desire and understanding of the materials studied, as well as to make students can learn according to the times that occur.

Acknowledgements

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References

Student Perceptions of Online Learning with Google Classroom during Covid-19 Pandemic

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Abstract. The Covid-19 pandemic is a worldwide event of the spread of the Sars-Cov-2 virus which has paralyzed human activities in all fields, including education. All students study at home by doing distance learning or online learning (online). One platform that is affordable for all people is google classroom. Google classrooms provide supporting facilities to carry out online learning during the Covid-19 pandemic. The study was conducted to assess student perceptions of the online learning process using google classrooms during a pandemic in Covid-19. The reason for this research is that students' perceptions of online learning have never been researched in the middle of Covid-19. This research can be used as a reference in future learning if the Covid-19 pandemic continues. The research method used is descriptive quantitative with a questionnaire instrument. The results of the study show that the majority of students, namely more than 50%, feel that online learning using google classrooms during Covid-19 pandemic can streamline learning, foster student independent learning initiatives, foster student interest in learning, and flexibility and efficiency of good time so that learning still running smoothly even though it is done remotely.

Keywords: Online learning, google classroom, the covid-19 pandemic

1 Introduction

In the present era of Revolution 4.0, the Internet is well known to the Indonesian people. Nearly all areas of human life make use of the Internet, particularly in the technology field in order to meet daily needs. The results from the 2016 Survey by the Indonesian Internet Network Providers Association (APJII) indicate that in Indonesia, internet users were 132.7 million with a total population of Indonesia of 256.2 million, i.e. 51.8% [1]. Ease of internet access is one of the cultures of society that is shifting to the digital era. Technology and education are two things that cannot be separated, because they must go hand in hand. Therefore, the world of education has also shifted to the digital era, namely through educational actors such as lecturers, students, and human resources related to education using the internet network for the purposes of carrying out tasks such as teaching, doing college assignments, and doing other administration Therefore, as an educator who has an important position in changing this condition, he must be able to act as an agent of change by conducting distance learning that utilizes the internet network.

During Covid-19 pandemic, distance learning is very appropriate to apply. This is because the covid-19 pandemic has paralyzed human activities around the world, even in the field of education. All educational institutions are required to undertake distance learning by making use of the available facilities. So, the presence of an internet network system is needed to carry out distance learning. The educational world calls it online (online) or e-learning. Online
learning is a form of internet use that can enhance students' role in learning [2]. Online learning cannot be used without supporting facilities, namely a platform. Google Classroom is one of the platforms that can be used. Google Classroom is a Google internet-based service that is useful for online learning. Google classroom's advantages include: a) easy set-up, which means teachers can add students, or share class codes directly to join b) save time, teachers can create, check, and place grades quickly. c) Google Classroom is affordable, free of advertising [3].

Then, according to previous research carried out by Saifuddin [2], which showed that 98.8 percent of students knew e-learning, 86.3 percent supported e-learning and 77 percent welcomed the use of e-learning. Furthermore, it made the perceptions of e-learning useful for students, could increase motivation, make material easier to understand, and help them to be ready for lectures. However, no previous research has been conducted into e-learning in the Covid-19 pandemic with Google Classroom. Research is therefore required into student perceptions of Google Classroom online learning during Covid-19. This study aims to determine the perception of the students of the online learning process in pandemic conditions using the Google Classroom platform. Where students have to be at home or not to leave the house, the conditions are different from the normal ones.

Research conducted by Zhafira [4] has led to a greater comfort in using the WhatsApp application and google classroom for 165 students from the Millennial group, based on their age. Students can learn new things with online learning activities that they may not have previously planned. Moreover, most students have a visual style which is more directed to image, writing or photography media. This concerns student habits in daily activities and conventional classrooms, where lecture material is distributed to the students via power points, presentations using diagrams, or by reading from teacher guides.

In addition, Anhusadar's research [5] has led to findings, namely the usual place to study for 60 students, 53 to 88.3 percent of whom have responded at home, 2 students or 3.3 percent who have responded in the garden, and 5 or 8.3 percent who have a good internet connection at home. Cell phones and laptops are students who use electronic devices for online lectures. Applications preferred by 56 students or 91.8% of students to participate in online lectures choose from Whatsapp Group Application, 4 students or 6.5% of students choose the Zoom Application, and 1 or 1.6% of students choose the e-mail Application. When students are asked how well the material presented by online lectures can be understood by student as much 1 student has responded well, 23 students have responded well, 34 students have sometimes replied, and up to 4 students have not been understood.

Research by Nurfalah (2019), then showed the important impact of the Google Class feature on learning in the era of the Industrial Revolution 4.0 including: (1) learning is done online using technology; (2) learning is not limited to space and time; (1) students are directly involved in the internet-enabling learning process; (4) learning material is easily accessible. (5) Educators can easily make Google classrooms to make learning efficient and efficient. The study was conducted to assess student perceptions of the online learning process using google classrooms during a pandemic in Covid-19.

2 Method

The method used in this study is a descriptive method of quantitative research. The objective of quantitative descriptive research is to explain and summarize different conditions according to what happened [7]. This study analyzes the perception of students' learning
responses using the Google Classroom blended learning method during the Covid-19 pandemic. The tool used was a student answer questionnaire by Google. PGSD students were the subjects or respondents in semesters 2, 4 and 6 at Purworejo University Muhammadiyah, totaling 228 students.

This research was carried out by creating a class in Google Classroom, distributing the class code to students to join. Furthermore, all lecture components such as attendance, material, assignments, quizzes, UTS, and UAS can be carried out online in Google Classroom. Response questionnaires are given to students after participating in learning using Google Classroom. The result is a category of perception, namely supporting (positive), rejecting (negative), and neutral [8]. The perception response questionnaire consisted of two variables, namely measuring students' perceptions of the blended learning method with Google Classroom and perceptions of the Covid-19 pandemic conditions. Furthermore, the collected data were analyzed using descriptive analysis techniques by calculating the percentage of each indicator. Then grouped based on perceptual indicators, then compile an interpretation of the results of the questionnaire data processing and conclude the research results.

3 Result and Discussion

3.1 Presenting the results

Questionnaire data in the form of students' perceptual responses to online learning using google classroom during Covid-19 pandemic can be seen in Table 1 below.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>SD</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The effectiveness of learning amid the Covid-19 Pandemic</td>
<td>5.1</td>
<td>10.6 65.6 18.7</td>
</tr>
<tr>
<td>Promote independent student learning initiatives</td>
<td>3.6</td>
<td>7.0 59.2 30.2</td>
</tr>
<tr>
<td>Fostering student interest in learning</td>
<td>4.1</td>
<td>6.3 64.5 25.2</td>
</tr>
<tr>
<td>Flexibility and efficiency of learning time</td>
<td>5.4</td>
<td>9.0 50.3 35.2</td>
</tr>
<tr>
<td>Average Score</td>
<td>4.5</td>
<td>8.2 59.9 27.3</td>
</tr>
</tbody>
</table>

On the basis of Table 1, it is possible that online learning with the Google Classrooms during Covid-19 pandemic can have a strongly agreed 18.7% on the pandemic. 65.6% disagree, 10.6% disagree and 5.1% strongly disagree. Thus, it can be concluded that according to the perceptions of students, online learning with Google classrooms during Covid-19 has a positive impact, as demonstrated in the 65.6% agreement and 18.7% strong support, or 84.3% of students agree that online learning in Google school is effectively implemented during the Covid-19 pandemic.

Moreover, on the basis of Table 1 the second indicator shows that 32.2% and 59.8% of students strongly agree that online learning through google classrooms in the Covid-19 epidemic has a positive impact. Then, online learning in the Google classroom during the Covid-19 pandemic may also encourage student interest in learning, which is shown in Table 1. 25.2% and 64.5% of students agree strongly and agree with each other. In addition, online learning
with Google Classrooms is more flexible and effective in terms of time during the Covid-19 pandemic, so that the learning can be carried out in accordance with mutual agreements and regulations at any time. On the basis of the research results described, most students, more than 50 percent, believe that Google on-line learning during the Covid-19 pandemic can simplify learning, promote self-study, encourage student interest and flexibility and time efficiency. Good so that learning goes smoothly even if it is done remotely.

3.2 Create a discussion

Based on the results of the research described above, the use of google classrooms during Covid-19 pandemic makes students actively ask questions through the provided comment column facility. This can be seen in students who are embarrassed to ask questions directly and can be facilitated properly by the comments column, because they do not feel embarrassed when asking online through the comments column. This can be seen in the comments column in the google classroom where more than 100 comments occurred during the learning process through google classroom for one meeting. This shows that google classroom can increase interaction in the learning process. This is in line with Lin, et al. (2017) and Borba, et al. (2016) who stated in their research that Blended Learning, in which online learning contains learning, can increase interaction between lecturers and students [9][10].

In addition, online learning with google classrooms during Covid-19 pandemic can be said to be effective because all material can be delivered efficiently and learning objectives can be achieved. It is said to be effective because students can re-study the material at another time and anywhere as long as there is a network. Thus in terms of time efficient and flexible implementation. This is in line with Yodha (2019) who argues based on the results of his research that students are enthusiastic about doing online learning. This is indicated by the existence of facilities that are in accordance with the concept of online learning, namely using technology and network-based. Students' enthusiasm in learning is supported by the presence of facilitators or lecturers to support online learning [11]. So that the materials and assignments given are easy to access anywhere and anytime. The collection of tasks is more efficient and faster and is neatly structured so that task work becomes effective and efficient because it is done online. In addition, Oka (2019) also stated that based on the results of his research, the development of online course materials with google classroom-based virtual classes could be implemented to enrich the strategy for delivering lecture materials and to create an open and flexible learning environment. A learning environment that can be accessed from anywhere, anytime and by anyone [12]. Furthermore, based on research results by Bowyer & Chambers (2017), it shows that there are three advantages to using the Blended Learning model, namely in terms of improving learning outcomes, time effectiveness in learning, and accommodating the online discussion process [13]. So it can be said that with the covid-19 pandemic, which requires all students to study at home, learning can be done remotely, namely online using google classroom. However, there are several obstacles that occur in the implementation, namely the stability of the internet network signal which is not evenly distributed throughout the region, resulting in some students who find it difficult to reach the signal so that they can participate in online learning properly. However, this can be overcome with material in the form of video or in pdf format so that it can be opened and studied at any time.
4 Conclusion

The results showed that the majority of students agreed that online learning using google classrooms during Covid-19 pandemic could streamline learning, foster student independent learning initiatives, foster student interest in learning, and flexibility and good time efficiency so that learning runs smoothly even though it is carried out continuously. long distance. Based on the conclusions obtained, online learning using google classroom can be used as a reference for educators who have never done online learning. Because the google classroom platform can be accessed by anyone and does not really need a large internet quota, so it is affordable for those with signal difficulties or limited internet quota. For researchers who want to carry out further research related to the use of google classrooms during Covid-19 pandemic, they can try it by comparing it with other platforms that are available for free.

Acknowledgements

This article is the outcome of independent research. I would like to thank students who have helped in conducting research, not to forget that I would also like to thank the Muhammadiyah University of Purworejo for funding the output of this article at BISMAS UNIMMA 2020.

References


Public Appeal to the Muhammadiyah Elementary School in Purworejo, Indonesia

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Abstract. This research is motivated by the phenomenon of the low attractiveness of the community in Purworejo district to send their children to Muhammadiyah elementary schools as a result of competition with low-cost public elementary schools. This study aims to analyze the marketing strategies of Muhammadiyah Elementary Schools in attracting public interest related to the attractiveness of students' parents in sending their children to SD Muhammadiyah. This research uses a qualitative type with a survey method. The survey was conducted on parents of students who send their children to Muhammadiyah elementary schools in Purworejo district. The results of this study include the first product has a positive effect on purchasing decisions. Second, price has a positive effect on purchasing decisions. Third, promotion has no effect on purchasing decisions. Fourth, place has no effect on purchasing decisions. Marketing mix has an effect on purchasing decisions. The combination of all the school's abilities in providing good educational products, affordable costs, good promotions and a comfortable place will make parents send their children to Muhammadiyah primary schools.

Keywords: Muhammadiyah elementary school, Purworejo regency

1 Introduction

The Muhammadiyah primary school level in Purworejo was first established in 1969 under the name Purworejo Muhammadiyah elementary school. The number of Muhammadiyah elementary schools to date has reached 8 units spread across Purworejo, Bayan, Kutoarjo, Kemiri, Purwodadi, Krendetan, and Bruno sub-districts. Muhammadiyah elementary schools that are within the scope of the primary and secondary education assemblies in Purworejo district have mostly experienced a decrease in the number of students from year to year. The level of public trust in sending their children to Muhammadiyah primary schools is still low. It is known from the number of ABA Kindergarten alumni, there is no 50% who continue to the Muhammadiyah elementary school level. The problem in this study is the decline in the number of new students and the decline in public interest in sending to Muhammadiyah elementary schools.

Efforts have been made by the school so far with various efforts including promotion through social media, procuring various kinds of creative activities, giving uniforms, and scholarships. These efforts have not been successful in comparison with the competition by high paying public primary schools and private schools. This requires a breakthrough to increase the interest of new students and a sense of public trust through the marketing mix. This relates to four things including products produced by schools to community satisfaction, prices offered
by schools, promotions distributed by schools, and affordability of access to school premises. These four components are contained in the marketing mix.

Kotler and Armstrong [2] state that marketing is the process of creating value for customers in building strong relationships with customers with the aim of knowing the value of the customer in return. Marketing means obtaining customer satisfaction with the services provided by the school to parents of students in fulfilling their needs. Marketing activities include drafting concepts or characteristics of schools, determining price withdrawals, school promotion, and distribution of ideas that are reflected in every school activity, products that are superior to schools, and optimal services. Kotler and Armstrong [2] state that the marketing mix is a set of controllable tactical marketing tools that a company combines to produce the response it wants in the target market. The marketing mix includes items of marketing tools, namely product, price, promotion, and place (4P). The product consists of product variety, quality, design, features, brand name, and packaging. The price consist of list price, discount, allowances, and payment period. The promotion consist of advertising, sales promotion, public relation, personal selling, and direct marketing. The place consist of coverage, assortments, locations, inventory, transportation, and channels.

The community in this case as consumers or service users. Kotler [1] the position of society as a decision maker and determinant of satisfaction. Purchasing decisions is a conscious process that has been wise in choosing or buying. Kotler and Keller [3] state that the factors that influence purchases include cultural, social, personal, and psychological. Culture is related to people's beliefs, in this case taking sides in practicing religion. The community in Purworejo generally sided with the nahdatul ulama group, so that the community was fanatical when there were other groups. Social is related to the composition of society. Every Muhammadiyah school in Purworejo has different social conditions. Social in this case relates to work, income, level of crowd, perspective, and language of communication. Personal relates to choices that are tailored to each other's financial circumstances, the choice to provide the best for the child, and the level of activity. Psychologically related to the comfort and confidence of a person in a school institution. The opinion in the community that schools in Muhammadiyah are less qualified schools. So they hesitate to send to Muhammadiyah schools.

The purpose of this research is to find out what attracts the parents of students in sending their children to Muhammadiyah elementary schools. This attraction will later become a promotional force for schools to maximize the acceptance of new students and increase the sense of public trust. This research procedure uses a survey method of eight Muhammadiyah elementary schools in Purworejo.

2 Method

This research uses a qualitative type with a survey method. This type of qualitative research used in this study aims to acknowledge whether there is an influence between the independent variable and the dependent variable. The survey design in this study was used to obtain primary data by filling out a questionnaire containing statements to respondents. Data collection techniques in this study used interview techniques, questionnaire techniques, surveys, and documentation studies.

The population in this study all parents of students who send their children to eight levels of Muhammadiyah elementary schools in Purworejo as many as 8 elementary schools became the population in this study. The sample in this study included the total number of students in
the 2019/2020 school year at the Muhammadiyah elementary school level in Purworejo totaling 100 respondents, with an explanation research sample distribution in the Table 1.

<table>
<thead>
<tr>
<th>Number</th>
<th>School Name</th>
<th>Population Size</th>
<th>Number of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>MI Krendetan</td>
<td>30</td>
<td>8</td>
</tr>
<tr>
<td>2</td>
<td>SDM Kutoarjo</td>
<td>120</td>
<td>34</td>
</tr>
<tr>
<td>3</td>
<td>SDM Bruno</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>SDM Kemiri</td>
<td>42</td>
<td>12</td>
</tr>
<tr>
<td>5</td>
<td>SDM Purworejo</td>
<td>35</td>
<td>10</td>
</tr>
<tr>
<td>6</td>
<td>SDM Jono</td>
<td>56</td>
<td>16</td>
</tr>
<tr>
<td>7</td>
<td>SDM Purwodadi</td>
<td>52</td>
<td>15</td>
</tr>
<tr>
<td>8</td>
<td>SD KUB</td>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Amount</td>
<td>357</td>
<td>100</td>
</tr>
</tbody>
</table>

The data collection method used in this study using a questionnaire. Data collection was carried out by distributing questionnaires directly to respondents. Respondents' answers were assessed using a Likert scale consisting of five choices including SS (strongly agree) = 5, S (agree) = 4, N (neutral) = 3, TS (disagree) = 2, STS (strongly disagree) = 1. instrument test using validity test and reliability test. The validity test to measure the validity of the questionnaire given to respondents is done by comparing the Cronbach Alpha value in the Corelated Item-Total column. Reliability test by measuring the reliability of a variable by looking at Cronbach Alpha with a significance used more than 0.70.

3 Results and Discussion

3.1 Research Results

The results of the multiple linear regression analysis partially show that the product, with a sig. 0.006 (<0.05) means that it is influential. So the product will affect the purchase decision. The effect, when viewed from the standard value of the beta coefficient is 0.318 and is positive, meaning that the better the product, the greater the purchase decision. Price, with a sig. 0.002 (<0.05) means that it is influential. So the price will affect the purchase decision. The effect, when viewed from the value of the beta coefficient is 0.336 and is positive, meaning that the more the price rises, the greater the purchasing decision. Promotion, with sig. 0.185 (> 0.05) means no effect. Promotion variable has no effect on purchasing decisions. Place, with a sig. 0.426 (> 0.05) means no effect. The place variable has no effect on purchasing decisions.

The results of partial multiple linear regression analysis in the Table 2 and the results of multiple linear regression analysis simultaneously in the Table 3. Based on the Table 2 and 3, it can be explained that simultaneously or together, this marketing mix variable has a positive effect on purchasing decisions. This is indicated by the sig value of 0.000 (<0.05) and F which is positive.
Table 2. Results of Partial Multiple Linear Regression Analysis

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>stderr</td>
<td>t</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>-.55</td>
<td>1.598</td>
<td>.113</td>
</tr>
<tr>
<td></td>
<td>Produk</td>
<td>-.588</td>
<td>.318</td>
<td>2.824</td>
</tr>
<tr>
<td></td>
<td>Harga</td>
<td>-.449</td>
<td>.396</td>
<td>3.204</td>
</tr>
<tr>
<td></td>
<td>Promosi</td>
<td>-.142</td>
<td>-.128</td>
<td>-1.336</td>
</tr>
<tr>
<td></td>
<td>Tempat</td>
<td>.059</td>
<td>.079</td>
<td>7.09</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Kadusuan_Pembelian

Table 3. Results of Multiple Linear Regression Analysis Simultaneously

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>13.222</td>
<td>4</td>
<td>3.306</td>
<td>11.321</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>37.738</td>
<td>94</td>
<td>.392</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>40.960</td>
<td>98</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Const, Tempat, Harga, Promosi, Produk)
b. Dependent Variable: Kadusuan_Pembelian

3.2. Discussion

The decrease in the number of new students based on the survey results was influenced by products and prices. The product in this case is the hallmark of the school and the excellence of the school. The effect of the product on the decrease in the number of new students is because the products produced or superior products are not in accordance with the wishes of prospective new students. Likewise in the case of services at schools not in accordance with the expectations of prospective new students. The number of Muhammadiyah elementary schools in Purworejo out of 8 schools that have repaired the product components are 2 including the Muhammadiyah elementary school Kutoarjo and the Purworejo Muhammadiyah elementary school. This was obtained from data on four new academic years starting from 2016/2017, 2017/2018, 2018/2019, 2019/2020. The following is an explanation data on new students in the last four years in the following image Figure 1.

![Data on new students in the last four years](image1.png)

Fig. 1. Data on new students in the last four years
The effect of price in reducing the number of new students in the form of funds set by the school is not in accordance with the economic conditions of prospective new students. There is little information about scholarships for prospective new students. So that there needs to be improvements in the product aspect or superiority of Muhammadiyah elementary schools to recruit new prospective students and price competition so that Muhammadiyah Elementary School remains the first choice for prospective new students.

Based on the results of a survey of 100 respondents, parents of students stated that 27% strongly agreed and 37% agreed with the availability of scholarships for high achievers and underprivileged people. Regarding the affordability of education costs, respondents responded that 6% strongly agreed and 55% agreed. Thus, the decline in the number of new students from the price component was influenced by the availability of scholarships and the affordability of education costs.

The decline in public interest in sending Muhammadiyah elementary schools was influenced by products, prices, and the marketing mix. Product components that affect the attractiveness of society to send to Muhammadiyah primary schools include the quality of education in this case school institutions, school support programs, school services, and quality of graduates. The percentage of survey results regarding the quality of education of respondents stated that they strongly agree as much as 2% and 52% agree that Muhammadiyah schools have criteria for good quality education. As a component of the existence of an attractive academic support program, respondents agreed as much as 56% agreed that Muhammadiyah elementary schools offer parents of students several interesting academic support programs and optimize students' talents and potential. The aspects of service by teachers and employees of Muhammadiyah elementary schools are in satisfying stages. This is based on data from the survey results, 55% expressed satisfaction with the services provided by Muhammadiyah elementary school teachers and employees. The community views the quality of graduates as important in reflecting the quality of schools. The results of the survey stated that 24% of respondents said Muhammadiyah primary school graduates could compete with other primary school graduates.

The price component that affects the attractiveness of the community to attend Muhammadiyah elementary schools includes the cost of education and the availability of scholarships. What is crucial and sensitive for the community is the issue of financing, so that people often compare financing between one school and another. The results of a survey of 100 respondents regarding affordable school funding, sources of financing information from brochures/banners/pamphlets, and the availability of scholarships. As many as 6% disagree and 55% disagree that school financing should be affordable by parents. This is because the operational funding for Muhammadiyah schools is independent. Based on financing information sources, 24% expressed disagreement, because financing information sources were faster to obtain orally. The availability of scholarships for the community is very important. This is to encourage students to excel. that 27% disagree and 37% disagree. This is because the scholarships available are institution-bound.

Marketing mix consisting of product, price, promotion, and place. Products consist of services, academic support programs, quality of education, and quality of graduates. The price consists of tuition fees and scholarships. Promotion consists of direct communication, advertisements, program promotions, and the physical appearance of the school. The place consists of strategic, easy to reach public transportation, parking space, and a comfortable environment. The four components in the marketing mix will influence people's decisions and satisfaction as users. buyer's decision consists of steadfastness and providing recommendations to others. Buyer satisfaction consists of feeling happy and proud, recommendations for oneself
and others, activeness in extracurricular activities, satisfaction with the programs offered by the school, service satisfaction, and satisfaction with the quality of education.

5 Conclusion

The components in the marketing mix from previous studies have had a positive effect. This is evident from Irawan and Khasanah's research with the following explanation. Irawan's research results regarding the marketing mix of service marketing and the decision of parents in choosing a school state that the statistical test results show that the service marketing mix jointly influences the decision to choose a school. This is evident from the variable product, price, place, promotion, people, physical evidence, and process partially have a significant effect on the decision to choose a school, while the price and place variables partially do not have a significant effect on the decision to choose a school. Among these variables, the promotion variable is the most dominant variable affecting the decision to choose a school. Khasanah in research using a marketing mix consisting of 7P, namely product, price, place, promotion, people, physical evidence, and process. The seven marketing mixes are identified as strategic steps in marketing educational services which include Market Identification, Market Segmentation and Positioning, Product Differentiation, and School Services.

Products have a positive effect on purchasing decisions. In this research, the product means all the facilities offered by the school for the service of teachers and employees, support programs, to the profile of existing graduates. The purchasing decision, in this case the parents of students willing to send their children to Muhamamdiyah schools, is very dependent on the product. This physical picture of the school, school facilities and the output of students who graduate is the most attractive thing for parents. In interviews with students, it was found that if they went to school, they did not only want their children to excel in academics, but could memorize a number of juz, have Islamic habits such as praying dhuha, reading the Koran and good manners.

Price has a positive effect on purchasing decisions. In this study, the price is reflected by the tuition fees that parents must pay to school. However, there are also scholarships that are possible for students who excel or are less well off. Several Muhammadiyah schools set tuition fees to be quite cheap and affordable. The number of scholarships ranging from organizational scholarships, BOS scholarships or others makes it attractive for parents of students to send their children there. There is even a Muhammadiyah SD which makes education free.

Promotion has no effect on purchasing decisions. In this case, the promotion is carried out by the institution through brochures and events. So far, the promotion carried out by Muhamamdiyah schools has not had an effect, meaning that it has not been able to influence the parents of students to send their children to Muhamamdiyah schools. Schools are considered to still carry out promotions in a standard manner and are far from attractive, even in some Muhammadiyah schools there are no brochures and promotions are only done by word of mouth.

Place has no effect on purchasing decisions. The place in question is the ease of transport, location, parking facilities and convenience of the place. Purchasing decisions are not affected by the venue. This means that the superiority of location cannot be utilized by the school to attract parents' interest in sending their children to school. Therefore, products have a positive effect on purchasing decisions, price has a positive effect on purchasing decisions, promotion has no effect on purchasing decisions, and place has no effect on purchasing decisions.
Acknowledgment

This research was conducted as a form of the tri dharma of higher education which is included in the national research grant competency. This research was carried out thanks to the support of the regional leadership of Muhammadiyah Purworejo who had permitted them to conduct research. We would like to thank all Muhammadiyah elementary school principals who have been willing to be research targets. We also thank respondents who have been willing to be involved in the research. The entire survey team who spent their energy and time to participate in the success of this research.

References

Revised Trauma Score (RTS) as a Mortality Predictor for Heavy Head Injury Patients (in IGD) PKU Muhammadiyah Gombong Hospital

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Muhammadiyah Gombong Health Institute, Indonesia¹²³

Abstract. The phenomenon of high head injury and a large mortality rate is in the spotlight. Knowing the prognosis of head injury by conducting an initial assessment or accurate system scoring is very important to know the progress, worsening of the patient's condition. The Revised Trauma Score (RTS) is a trauma scoring system that assesses physiological functions capable of predicting the death of head injury patients. PKU Muhammadiyah Gombong Hospital in identifying trauma patients has not used trauma scoring specifically for trauma. Analyzing and identifying using only the observation sheet has not been able to show the severity of the injured or traumatized patient. The purpose of this study was to determine whether RTS was effectively used to predict mortality in severe head injury patients. This research method is a type of descriptive correlation research using a retrospective cohort study approach by taking medical record data from 2015 to 2019. Retrieval of data using observation sheets was carried out on April 20, 2020, at PKU Muhammadiyah Gombong Hospital. The study sample consisted of 87 patients with severe head injury according to the inclusion and exclusion criteria. Test Results of the 'Statistics Test' known as Asymp.Sig. (2-tailed) on the Fisher's Exact Test of (0.683> 0.05). Thus the Revised Trauma Score (RTS) statistical test is not effective against the Predictors of death in severe head injury patients at PKU Muhammadiyah Gombong Hospital. Recommendations Researchers can then add nursing and medical interventions as other considerations.

Keywords: Mortality, severe head injury patient, RTS

1 Introduction

The phenomenon of trauma or injury is a case that is often found in the Emergency Room (IGD) Hospital. Trauma is closely related to disability and death rates. Trauma or injury cases often occur due to traffic accidents. Traffic accidents often occur in developing countries such as Indonesia, whose numbers are increasing in proportion to the development of industry and transportation.

In 2002 one kind of cause accidents that caused many deaths in world traffic accidents (22.8%) followed number two with unintentional accidents (18.1%) and number three due to suicide (16.9%). Meanwhile in India there are also traffic accidents was the leading cause of death (31%). On the year 2000 accidents on the highway became the number nine cause of death in the world and the fifth leading cause of death in the United States. In the world this figure will always be increasing and on the year 2020 is expected to be traffic accidents to be the
number three cause of death after ischemic heart and depression with projections accidents from 5.1 million in 1990 to 8.4 million in 2020.

According to WHO [13], Indonesia fifth ranks with a total traffic accident victim of 38,279 people in 2015. Traffic accidents in 2016 amounted to 106,747 people (Central Statistics Agency, 2016). The number of traffic accidents in Central Java province in 2016 was still quite high, reaching 4,875 incidents. In 2018, the number of traffic accidents in Central Java was still relatively high at 72,700 people and the proportion of head injuries due to accidents was 10,000 people [7].

Many tools for polytrauma care exist for better management of these patients, as well as to provide predictive factors of morbidity and mortality to generate statistical data for the establishment of preventive measures to trauma. There are several trauma scores, with different levels of complexity for practical implementation. The Revised Trauma Score (RTS) is widely used by emergency services around the world.

The scoring system has changed since the beginning of its inception. Some of the scoring systems available include the Revised Trauma Score (RTS), Injury Severity Score (ISS), and Trauma-Related Injury Severity Score (TRISS). This scoring system was chosen because it is often used in trauma research articles. RTS assesses the human physiological system as a whole, is the result of a refinement of the GCS instrument to assess the initial condition of head trauma patients. RTS assessments are performed immediately after the patient is injured, generally before admission to the hospital or while in the emergency room. The RTS necessitates the use of a formula to admit the GCS, respiratory rate and systolic blood pressure and it remains the most commonly used pre-hospital trauma scoring system. Moreover, the RTS is considered as one of the most easily calculated triage tools available shortly after trauma admission.

Regarding the condition of head injury patients with skull fractures, it was explained that GCS is an important scale to assess the initial level of consciousness or physiological status, clinical condition and even the prognosis of the patient's condition [3]. Systolic blood pressure is a good predictor of mortality in head injury patients [5] because it can assess systemic changes such as the incidence of hypotension. Apart from GCS and systolic blood pressure, respiratory status is also important. Unconsciously, the body will try to meet oxygenation, maintain perfusion of brain tissue and maintain cerebral hypoxia [4]. Respiratory rate less than 12 times per minute or less than 24 times per minute will increase the risk of death in head injury patients, in other words, it has a bad outcome [9].

Based on the description of the events above, the experts developed a trauma scoring system. The trauma scoring system is part of the initial assessment by looking at the physiological function or physiological status of humans as a whole which was developed by Champion et al. [2] in 1989. The trauma scoring system has 3 parameters, namely the level of consciousness, respiration, and systolic blood pressure. The sum multiplied by the rebellion obtained the value of the risk of patient deterioration. RTS values ranged from 0-7,804 from heavy to light. The lower the RTS value, the worse the patient's condition and the value <4 patients should be referred to a trauma center hospital.

Several studies that studied the relationship between RTS and mortality within the first 24 hours at the hospital showed that there was a significant relationship, RTS had 88% and specificity 90% (Heydari, 2013). In the research of Ranti et al., (2016) RTS is easy to apply during the triage and pre-hospital phase, or in the ER and is recommended to be part of the guidelines for handling multi-trauma cases.

On the RTS calculation formula, the greater constant multiplies the Glasgow Coma Scale, the SBP and RR being multiplied by lower constants. From this, victims of neurological trauma,
whose GCS values are smaller, will have a lower final RTS result and be classified as potentially more severe. In contrast, patients with thoracic or abdominal trauma, which at first may not display changes in the level of consciousness, may result in an overestimated RTS value, apparently not predicting gravity. This failure in the evaluation of such patients may not correlate well with the actual clinical situation and case seriousness, often not demanding more specialized staff, which may impair the patient’s progress.

Based on the results of the analysis at PKU Muhammadiyah Gombong Hospital in identifying trauma patients, they only use a few criteria to identify the severity of the trauma. They have not been able to show the severity of the injury or trauma patient, the prognosis, and even the patient’s death. From this phenomenon, the researchers wanted to know the extent to which RTS could be effective as a predictor of death in severe head injury patients at Muhammadiyah Gombong Hospital.

2 Method

This research is a descriptive correlation research type using a retrospective cohort study approach by taking medical record data from 2015 to 2019. Using the observation sheet, it was conducted on April 20, 2020, at PKU Muhammadiyah Gombong Hospital. The study sample consisted of 87 patients with a severe head injury in accordance with the inclusion and exclusion criteria.

Data is taken by recording the number of respondents with severe head injuries from January 2015 to December 2019 then looking at the mortality data for that period of the year and recording respiration, blood pressure, and level of awareness (GCS) data on the triage sheet from the respondent's medical record. After all the components of the RTS data were collected, the researcher calculated the respondents one by one using the RTS formula when the patient was diagnosed with a severe head injury for the first time. Data taken from patient observation sheets, the measurement results are the initial examination of the patient arriving at the Emergency room.

Univariate analysis in this study was for severe head injury patients such as the characteristics of the respondents in this study, namely gender, age, occupational vital signs regarding the Glasgow Coma Scale (GCS), Systolic Blood Pressure (SBP), and Respiration Rate (RR) of respondents presented in the frequency distribution (percentage). Bivariate analysis in this study was used to determine the effectiveness of RTS on the predictors of mortality in severe head injury patients using Chi-Square test analysis.

3 Result and Discussion

3.1 Presenting the results

Based on the findings of this study, the characteristics of head injury patients were severe (Table 1).
Table 1. Frequency Distribution of Characteristics of Respondents

<table>
<thead>
<tr>
<th>Characteristics of Respondents</th>
<th>N = 87</th>
<th>Frequency (f)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>65</td>
<td>74.7</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>22</td>
<td>25.3</td>
<td></td>
</tr>
<tr>
<td>Age</td>
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<td></td>
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</tr>
<tr>
<td>Adolescence</td>
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<td>Adult</td>
<td>25</td>
<td>28.7</td>
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</tr>
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<tr>
<td>Senior</td>
<td>12</td>
<td>13.8</td>
<td></td>
</tr>
<tr>
<td>Worker</td>
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</tr>
<tr>
<td>Labor</td>
<td>18</td>
<td>20.7</td>
<td></td>
</tr>
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<td>IRT</td>
<td>9</td>
<td>10.3</td>
<td></td>
</tr>
<tr>
<td>Farmer</td>
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</tr>
<tr>
<td>Private</td>
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<td>10.3</td>
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</tr>
<tr>
<td>Not Working</td>
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<tr>
<td>Self Employed</td>
<td>9</td>
<td>10.3</td>
<td></td>
</tr>
</tbody>
</table>

Based on the table 1 that most of the severe head injury patients were male (74.7%) amounted to 65, the majority of severe head injury patients were elderly (32.2%) of 28 people. The dominating job was not working (26.4%) of 23 people.

Table 2. Frequency distribution of GCS values in severe head injury patients.

<table>
<thead>
<tr>
<th>GCS</th>
<th>N = 87</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>27</td>
<td>31.0</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>19</td>
<td>21.8</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>41</td>
<td>47.1</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td>SBP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>1.1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>5</td>
<td>5.7</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>4.6</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>77</td>
<td>88.5</td>
<td></td>
</tr>
<tr>
<td>RR</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>3</td>
<td>3.4</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>0</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>2.3</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>21</td>
<td>24.1</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>61</td>
<td>70.1</td>
<td></td>
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</tbody>
</table>

Based on Table 2, the GCS score of severe head injury patients found that the GCS results of severe head injury patients were found the majority of GCS results have a score of 2 (6-8) of 41 people (47.1%). The SBP of severe head injury patients had the highest score of 4 (> 89) as
many as 77 people (88.5%) and the majority of severe head injury patients had a respiration rate score of 4 (10-29) as many as 61 people (70.1%).

Table 3. Distribution of RTS results in severe head injury patients.

<table>
<thead>
<tr>
<th>RTS degrees</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heavy</td>
<td>6</td>
</tr>
<tr>
<td>Medium</td>
<td>81</td>
</tr>
<tr>
<td>N</td>
<td>87</td>
</tr>
</tbody>
</table>

From the results of statistical calculations, patients with a severe head injury had a minimum score of 26 284, the value of the maximum score 59672. Value degrees RTS severe head injury patients with severe risk score (<3.4) of 6 people (6.90%), moderate risk (3.4-7.2) 81 people (93.1%).

Table 4. Frequency Distribution of the Relationship between Revised Trauma Score (RTS) against Predictors of Mortality in Patients Serious Head Injuries (N = 87)

<table>
<thead>
<tr>
<th>Predictors of mortality</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>RTS</td>
<td></td>
</tr>
<tr>
<td>Weight Risk</td>
<td></td>
</tr>
<tr>
<td>Count of total</td>
<td></td>
</tr>
<tr>
<td>2.3%</td>
<td></td>
</tr>
<tr>
<td>4.6%</td>
<td></td>
</tr>
<tr>
<td>6.9%</td>
<td></td>
</tr>
<tr>
<td>Moderate Risk</td>
<td></td>
</tr>
<tr>
<td>Count of total</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td></td>
</tr>
<tr>
<td>43</td>
<td></td>
</tr>
<tr>
<td>83</td>
<td></td>
</tr>
<tr>
<td>% of the total</td>
<td></td>
</tr>
<tr>
<td>43.7%</td>
<td></td>
</tr>
<tr>
<td>49.4%</td>
<td></td>
</tr>
<tr>
<td>93.1%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td></td>
</tr>
<tr>
<td>47</td>
<td></td>
</tr>
<tr>
<td>87</td>
<td></td>
</tr>
<tr>
<td>% of the total</td>
<td></td>
</tr>
<tr>
<td>46.7%</td>
<td></td>
</tr>
<tr>
<td>54.0%</td>
<td></td>
</tr>
<tr>
<td>100.0%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Value</th>
<th>df</th>
<th>Asymptotic Significance (2-sided)</th>
<th>Exact Sig. (2-sided)</th>
<th>Exact Sig. (1-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>.415*</td>
<td>1</td>
<td>.520</td>
<td></td>
</tr>
<tr>
<td>Fisher's Exact Test</td>
<td>.418</td>
<td>.683</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>87</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Chi-Square test

Based on the analysis of "Test Statistics", it is known that Asymp.Sig. (2-tailed) on the Fisher's Exact Test of (0.683) means p > 0.05.

3.2 Discussion

The results of the study showed that the most results were gender. male (74.7%) amounted to 65, the category of the male sex is quite dominant. This is because men have an active role in taking action on the road and high mobility in driving, while the awareness to maintain safety is low [1].

Most of the patients with severe head injury are in the elderly phase, namely the age of 46-65 years. The increasing age of a person at the same time will be followed by reduced visual function and decreased physiological system. So that it is more at risk of getting in danger from its decreased reactions [1]. The predominant occupational criteria from the research results are adolescence, adulthood because many of these ages are still students. In line with the results of
Wahyudiyanto’s (2014) research, the characteristics of the type of job in the non-working category have a more dominant value, namely 36.8%, as many as 28 people because many of them are students.

The results showed that the physiological status of severe head injury patients included GCS, SBP, and RR. GCS of severe head injury patients has the highest score with a score of 4 (6-8). The results of the analysis show that the GCS values of severe head injury patients range from 3 to 8. In line with Krisanty (2009), the GCS of severe head injury patients ranges from a range of values. 3 to 8 and the patient has decreased consciousness for more than 24 hours or even days. The measurement of GCS is indirectly to show the level of brain function as a control function of all human organs and as a measuring tool for the severity of head trauma patients (Ting et al., 2010).

According to Irawan et al., (2010), the assessment of GCS depends on the patient's body reflexes, on the cerebral response to afferent stimuli. Low physiological status is not different from the physiological status of a serious or serious condition so it requires fast, precise and accurate action to minimize the high mortality rate. In line with Brazinova et al (2010), GCS can influence patient prognosis. The smaller the GCS value, the worse the prognosis of head injury patients.

Moreover, other physiological status values such as SBP and RR will also be seen because in a decreased or low neurological status the physiological status changes as compensation. The results of the data analysis showed that the SBP of severe head injury patients had the highest score at 4 (> 89) as many as 77 people (88.5%).

From the results of data analysis of patients with a severe head injury, the majority of patients experienced a decrease and an increase in systolic blood pressure. In trauma patients including severe head injury, hypotension can occur at any time. According to Arnold (2013), the incidence of hypotension can increase the mortality rate. Among the head injury patients, patients were hypotensive due to massive blood loss in the systemic system. In the initial conditions of head trauma, the body reflexively tries to increase blood pressure to maintain the reflexively Cerebral Perfusion Pressure (CPP) [8].

According to research by Berry et al. (2012) and Fuller et al. (2014), blood pressure <120 mmHg has 1.5 times the risk of death, <100 mmHg has 2 times the risk of death, <90 mmHg has 3 times the risk of death and 6 times the risk of death at blood pressure <70 mmHg. A decrease in SBP in head injury patients is an indication that there is an increase in the severity of these patients.

Based on the study, the RR value in patients with a severe head injury, the majority of which had a respiration rate score of 4 (10-29), was 61 people (70.1%). From the results of the analysis, the researchers assumed from the research analysis that patients who had high respiration frequency values were close to abnormal because they were trying to maintain Cerebral Perfusion Pressure (CPP) by maintaining blood pressure within the normal range.

Changes in respiratory rate can cause a decrease in the value and quality of oxygen saturation and decreased perfusion to the tissues, the brain does not get oxygen supply which results in cerebral hypoxia. Thus, according to Ristanto et al [8], the outcome of treatment of head injury patients is bad. This research is different from that conducted by Widyaswara et al. [12] states that there is no relationship between respiratory frequency and outcome of head injury patients, but in the discussion of respiratory frequency, it is stated that respiratory frequency is an indicator of head injury patient outcomes that can be used. An increased respiratory rate (hyperventilation) occurs at the beginning of the trauma or head injury phase to maintain oxygen saturation.
Predictors of death in patients with severe head injury based on the results of the analysis obtained, in the first 24 hours (54.0%) 47 people and death more than 24 hours or patients alive (46.0%) 40 people. The deaths here are dominated by adults and the elderly because they have mobilized outside the home and even on the road and have a greater risk of accidents and even death. Besides, they also have an abnormal physiological status, meaning they have a fairly poor prognosis.

Another factor is also due to having bad vital signs such as GCS, SBP, RR values at the onset of trauma. GCS measurement indirectly indicates the patient's neurological function. The smaller the GCS value, the worse the prognosis of head injury patients. This statement is evident from the results of the study to get a GCS value of ≤8 or with a total death of 54.0%. In line with Ristanto's et al [8], in his study, patients who died had a GCS value of ≤8 by 19 people (79%). The next factor is systolic blood pressure or SBP, systolic blood pressure in patients with severe head injuries, many of which have values below normal or fall into the hypotension category, namely 45 people (50%).

These results are consistent with research by Berry et al. (2012) and Fuller et al. (2014); Ristanto et al [8], that patients who have blood pressure <120 mmHg have 1.5 times greater risk of death, <100 mmHg have a 2-fold risk of death, <90 mmHg has 3 times, <70 mmHg has 6 times folding.

When the patient is hypotensive or the diastolic blood pressure is below normal, the patient may experience bleeding. Low CPP causes new problems, namely ischemia and causes infarction of brain tissue. According to Irawan et al. (2010); Ristanto et al [8], SBP <90 mmHg is associated with higher mortality rates. Another factor of death for the first 24 hours is a decrease in oxygen saturation <90% (Kellet et al. 2008; Putra DSE et al., 2016). The decrease in oxygen saturation is due to changes in respiratory frequency, both the frequency increasing above normal and even decreasing below normal.

The severity of the RTS score in this study showed that the statistical calculation of severe head injury patients had a minimum score of 26284, a maximum score of 59672. The RTS grade of severe head injury patients with a severe risk score (<3,4) was 6 people (6,90%), moderate risk (3,4-7,2) 81 people (93.1%) mean RTS score of around 4.9218, both dead and alive severe head injury patients. In the study by Subhannur et. al. [6], 11 people (10%) had moderate risk RTS severity scores who died, 41 people (38%) had a low-risk score, the difference with this study was that there was no RTS severity score. mild risk. In accordance with Champion's [2] theory that the heavier the RTS score, the higher the mortality rate in the first 24 hours, meaning that severe head injury patients with a severe risk RTS score (<3,4) have a higher prognosis.

From the analysis of "Chi-Square Test," it is known that Asymp.Sig. (2-tailed) on the Fisher's Exact Test (0.683) p value > 0.05, that the hypothesis is rejected. Thus statistically the Revised Trauma Score (RTS) test is not effective against predictors of death in severe head injury patients at PKU Muhammadiyah Gombong Hospital.

RTS was effective in predicting the sample overall mortality, the majority of cases displaying RTS above seven, which indicates a high probability of survival. However, when compared groups, RTS was more effective in analyzing the survival rate in patients suffering from traumatic brain injury than doing so for patients with penetrating and blunt trauma to the chest and abdomen.

In other words, the revised trauma score can act as a triage tool to predict mortality and prioritize the care of traumatic patients with different intensities especially when dealing with lack of resources, but it is not enough as the only used tool. Application of other tools may improve the value of mortality prediction in traumatic patients and minimize the possibility of error in prioritizing and care of patient. The usage of only the first revised trauma score and
measurement of mortality within the first 24 h of hospitalization were two limitations of this study.

In this study, in line with Wahyudianto et al. [11], the data was obtained from a p-value of 0.310 so that p > 0.05, so H0 was accepted and H1 was rejected, meaning that there was no significant relationship between RTS and mortality in head injury patients at RSUD. Picture of Kediri City in 2014.

Reflectively, the body will try to meet oxygen needs, maintain perfusion of brain tissue and prevent hypoxia by increasing the frequency of respiration and maintaining SBP within normal ranges. Researchers assume based on the analysis of patients with severe RTS scores but did not die in the first 24 hours because the patients were able to maintain their SBP, RR scores even though the GCS scores were low. Other factors regarding intervention in meeting physiological needs in an emergency such as patenting of the airway, meeting oxygenation needs, maintaining cardiovascular conditions and handling <6 hours that have been done so that the systemic system and perfusion are still under control.

There are several limitations of the study, the researcher is unable to refute the statements of the research results including nursing or medical interventions, supporting examinations, the patient's medical history.

4 Conclusion

The results of this study concluded that statistically there was no significant relationship between RTS and the predictors of mortality in severe head injury patients. However, the lower the RTS value, the greater the risk of death in the first 24 hours. For this research, the hospital can be used as consideration for usage and additional references. The next researcher can add a history of the disease, nursing interventions.

References


Handling of Covid-19 as a Non-Natural Disaster in Indonesia

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Abstract. This paper analyzes how Indonesia is handling the global Covid-19 pandemic. This paper focuses on the Indonesian Government's decision to determine the Covid-19 pandemic as a non-natural national disaster. It addresses the questions: is the determination of the status of a non-natural national disaster effectively used in handling Covid-19 in Indonesia? to answer this question, this paper employed juridical normative by exploring the regulations and institutional approaches the pandemic. This paper indicates four points-first, there is a need to strengthen institutions and policies. Second, there is a need to clarify policies both in material and formal terms. Third, there are needs to be a centralization of policy implementers. Fourth, it is necessary to strengthen checks and balances from other branches of power. This paper is essential as part of the evaluation and lessons learned to handle Covid-19 better to produce optimal policies during emergencies.

Keywords: Covid-19, non-natural national disaster, the Indonesian government

1 Introduction

Since discovering the first two cases of Covid-19 (novel coronavirus or SARS-CoV-2) on March 2, 2020, in Depok, the Indonesian government has produced a series of legal products to deal with the spread of Covid-19 [1]. Globally, the World Health Organization (WHO) has designated Covid-19 as a Public Health Emergency of International Concern (PHEIC) on January 30, 2020. After that, the WHO increased its status as a Global Pandemic on March 11, 2020 [2].

The laws and regulations in Indonesia have provided various alternatives in responding to emergencies caused by this global pandemic. In general, two rules are used as references informing policies for handling Covid-19, namely (Fig. 1) Law Number 6 of 2018 concerning Health Quarantine and Law Number 14 of 2007 concerning Disaster Management.

On March 31, 2020, the Government issued Presidential Decree No. 11 of 2020 concerning the Determination of Public Health Emergencies, which refers to the Health Quarantine Law. This determination is the basis for the imposition of large-scale social restrictions in several regions in Indonesia. On the same date, President Joko Widodo also issued Government Regulation in lieu of Law Number 1 of 2020 concerning State Financial Policy and Financial System Stability for Handling the Corona Virus Disease (Covid-19) Pandemic and/or in the Context of Facing Threats Endanger the National Economy and/or Financial System Stability. Finally, the President issued Presidential Decree No. 12 of 2020 concerning the Designation of Non-Natural Disaster for the Spread of Corona Virus Disease 2019 (Covid-19) as a National Disaster. Several derivative regulations and implementing regulations were established to
complement the technical legal instruments required by the Covid-19 emergency policy in Indonesia. The reference law can be seen in Figure 1.

![Fig. 1. Reference law](image)

2 Method

This paper uses the normative juridical method. Normative juridical research aims to examine legal principles, legal systematics, legal synchronization, legal history, and comparative law. One of the approaches used is "The Doctrinal Approach," which is to explore the opinions of experts and practitioners related to the topics discussed. This paper analyzes government policy towards an emergency using emergency constitutional law theory.

Using juridical and theoretical approaches, this paper compares the needs that should exist in policymaking in an emergency. The main theory used is the emergency powers which should be able to deal with emergencies effectively. The regulatory approach is used to assess the suitability of legal products created by the government with urgent needs during the Covid-19 pandemic.

3 Result and Discussion

3.1. Strengthening institutions and policies

The concept of determining status in an emergency is to give the government the authority to take the necessary actions to save the country by concentrating resources to restore normal conditions [3]. This concept was initially requested by WHO to Indonesia through a letter on March 10, 2020, one of which asked the Indonesian Government to increase its response to Covid-19, namely establishing a national emergency status [4].

The determination of this emergency status is a form of strengthening institutions and policies that can constitutionally be carried out by the government in an emergency. This strengthening is reflected in the government's ability to produce legal products that are quick and appropriate in responding to crises [5].

Institutional and policy weakening occurs when the government delays in determining the emergency status. Twenty days after WHO's recommendation, the Indonesian government only established a Public Health Emergency on March 31, 2020 [6]. In health calculations, 20 days is too late to be related to the incubation period and the spread of Covid-19, which is around 14 days (Figure. 2) [7].
The delay in determining this emergency has resulted in a crisis of public confidence by first implementing an informal lockdown before formally establishing the large-scale social restrictions in several parts of Indonesia. In fact, in an emergency, the central government has the constitutional authority to determine crucial policies related to public interests in priority.

Institutional and policy strengthening is the first recommendation in this policy brief to emphasize the government's need to produce legal products that do not overlap, a solution characterized by cutting administrative bureaucracy. The presence of uncertainty regarding government policies will add to the length of the bureaucratic chain. This can be seen from the presence of Government Regulation no. 21 of 2020 concerning Large-Scale Social Restrictions on Covid-19, which in its regulation adds to the length of the policymaking process in times of emergency.

David & Brenda explain that a bureaucratic approach in implementing emergency management will result in an ineffective emergency response [8]. Institutional strengthening is carried out to control public policies in times of crisis that require high accuracy and high speed. To improve the policymaking process so that it does not drag on.

3.2. Clarity of the formal-material form of policy

Another problem found in several legal products related to Covid-19 was the lack of formal-material clarity regarding policy formation. One criticism that is often encountered is the lack of content in a legal product born during an emergency. A policy cannot be executed immediately but must wait for a more detailed implementation regulation. A legal product that is born in an emergency must at least have appropriate and applicable content. The content in a legal product stipulated by the government must contain the main things and the details that can become the framework for implementing the policy.

The presence of Government Regulations concerning Large-Scale Social Restrictions (PSBB) and government regulations in lieu of laws 1 of 2020 concerning Covid-19 are examples of rules that do not have sufficient material content. Problem drafting should not make legal products lack content and or even have no exact meaning. The existence of Government Regulation No. 21/2020 is hoped that concerning Large-Scale Social Restrictions cannot provide more administrative requirements than Law No. 6/2018 concerning Health Quarantine. Likewise, other implementing regulations have to facilitate emergency policies and not cause long bureaucratic excesses.
Similarly, Government regulations in lieu of laws 1 of 2020, which in essence does not have a clear definition of what is meant by "the Framework for Facing Threats that Endanger the National Economy and/or Financial System Stability," so it has the potential to be applied inappropriately. On the other hand, the absence of clear directions reflected in public health policies has confused some stakeholders in taking technical steps. One of them is found in the risk of fraud in the procurement of goods and services that can be categorized as corrupt. The absence of a firm and directed policy makes technical actors worry that they will become victims of maladministration because they are considered to cause losses to state finances.

Formal and material clarity are also crucial in emergency law products to avoid misuse of interpretation and use. So, there is no need for confusion in the community regarding the permissibility or prohibition of going home, the ban of online motorcycle taxis, and the determination of a disaster situation as reasons for source major in a contract. The lack of content in Covid-19 legal products must also be linked to the health policy crisis. So it is necessary to have legal products that are specifically issued to provide guarantees for the availability of more specific and adequate medical and community health devices.

There have not been any public policy products that clearly describe a road map for dealing with Covid-19 in the health corridor. Simultaneously, the need to provide laws and regulations based on public health is one priority in dealing with health emergencies. So, it is necessary to formulate a policy engineering that ensures protection for medical personnel, the availability of medical devices such as masks, PPE, and Covid-19 test kits, as well as policy engineering to ensure the availability of quality and affordable pharmaceutical products. Therefore, legal products issued during an emergency must have applicable content in an exact format so that they are not trapped in the usual administrative mechanisms that are difficult to do in times of crisis.

3.3. The centralization of policy implementers

During an emergency, the ideal concept of control is in the theory of Carl Schmitt regarding "The Sovereign" [9]. According to him, an emergency requires strengthening command and centralization of policy implementers. In theory, centralization of control and policy during a crisis can only be carried out by the President as head of state because it is the President who is given constitutional authority to violate the laws that apply specifically during an emergency.

In implementing the Covid-19 emergency, many major players do not have a firm posture of authority. The unclear, leading sector about this authority has resulted in many parties feeling that they have the power to regulate one another. Fig. 3 is several key players in handling Covid-19 include the Ministry of Health, the National Disaster Management Agency, the Regional Government, and the Central Government.

Sagar argues that the concentration of power will facilitate good policymaking in an emergency. This is precisely what is expected from the implementation of the emergency status [10]. The existence of Presidential Decree No.11 of 2020 concerning the Determination of the Corona Virus Disease 2019 (Covid-19) Public Health Emergency is expected to centralize policies in response to Covid-19.

The centralization of this policy was later biased due to Presidential Decree No.12 of 2020 concerning the Determination of Non-Natural Disasters for the Spread of Corona Virus Disease 2019 (Covid-19), a National Disaster. These two emergency declarations created a status quo in handling Covid-19.

The determination of Public Health Emergencies authorizes the Minister of Health as the leading sector in policymaking, including large-scale social restrictions. However, at the same
time, the Determination of Non-Natural Disasters for the Spread of Covid-19 assigns responsibility to the Chairperson of the Covid-19 Task Force, who is also the Head of the BNPB (National Disaster Management Agency). In this status quo condition, it is necessary to be explicit about implementing policies' centralization process so that it does not cause interpretation or even collisions with one or more legislative products.

Fig. 3. Key players in handling Covid-19

3.4. Strengthening checks and balances

Although, in essence, an emergency is a condition for violating the law, the implementation of an emergency cannot be separated from the checks and balances mechanism. The need to bypass the administrative side in times of crisis must not eliminate other state powers that have been guaranteed in the constitution. The public's biggest concern about the loss of the checks and balances mechanism lies in enacting government regulations in lieu of laws 1 of 2020 regarding irregularities in state finances. The argument for handling Covid-19 or the argument for state financial stability can easily be used to take actions with minimal oversight from both the legislature and the judiciary.

The leniency to relocate state finances can be made to provide fast services in crisis conditions. However, the budget relocation approach must be justified within the corridor of law. So that efforts to relocate budgets and policies can still meet the principles of good governance. Some concerns over Articles 27 and 28 of government regulations in lieu of laws no 1/2020 that eliminate legal remedies through court channels and legislative involvement in Covid-19 / financial stability policymaking are a design of checks and balances incompatible with the current application of emergency law. The need to produce fast and appropriate policies with proportional state budget provisions is also essential in fulfilling citizens' rights in the future.

Rossiter made an inventory of the need for certain limitations in applying emergency law not to create a dangerous constitutional dictatorship [11]. Some people do not use the legal stipulation in the emergency of Covid-19 to save themselves or their group. Still, it is used for the most significant benefit of the Indonesian people.

4 Conclusion

Based on the description above, it can be concluded that the Indonesian government needs a number of improvements in dealing with the Covid-19 pandemic. Several issues that need to be considered are the need to concentrate on one policymaker. Besides that, it requires proper policy-making with effective legislative formulations.
Equally important is the need to ensure that governments do not use emergencies as opportunities to commit fraud. Therefore, the existence of checks and balances is needed in a situation like this. The stipulation of the Covid-19 pandemic as a non-natural disaster does not make BNPB the leading sector, but the existence of various other institutions that are also the leading sector, resulting in a centralized policy administration. So it is necessary to have clarity regarding the leading sector in handling covid-19 in Indonesia.

Acknowledgement

The author would like to thank Allah SWT for give manifest in this work. “…And when ye are told to rise up, rise up. Allah will raise up to (suitable) ranks (and degrees), those of you who believe and who have been granted Knowledge. And Allah is well-acquainted with all ye do” [Quran, 58:11].

References

Physical Properties and Antibacterial Activities of Spray Footsanitizer Combination of Coffee Seed and Ginger Extract with Variation of Stirring Speed

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Abstract. Foot odor is a matter of body odor. This physical disorder is called bromhidrosis, bromhidrosis is excessive body odor due to the secretions of apocrine sweat glands found in the armpits, scalp, soles of the feet, between the fingers and genitals. Prevention efforts can use antibacterial soap. However, this attempt is impractical. a more practical foot deodorizing innovation, namely the Footsanitizer Spray. Footsanitizer Spray on the market contains 70-95% alcohol. it is necessary to have natural ingredients that can act as antibacterial, namely coffee beans and ginger rhizome. The formulation of Footsanitizer Spray, a combination of coffee bean extract and ginger root, was successfully formulated. Based on organoleptic testing, all Footsanitizer Spray formulas are liquid, light brown in color, have a distinctive aromatic smell and have a soft taste. foot sanitizer has good clarity and homogeneity. The results of the specific gravity test for the three formulas, namely formula 1, formula 2 and formula 3 are 1.043 grams / ml, 1.060 grams / ml, and 1.067 grams / ml, respectively. Meanwhile, the viscosity values of each are 1.91 cp, 1.63 cp, and 1.58 cp. formula 3 with stirring 1500 rpm has better antibacterial activity than other formulas.

Keywords: Foot sanitizer spray, physical properties and antibacterial activities

1 Introduction

Foot odor is one of the most common body odor problems. This physical disorder is one of the habitual disorders of apocrine sweat and has the term Bromhidrosis, Bromhidrosis is a condition where a person's body odor is excessive than normal due to the secretion of apocrine sweat glands located in the armpits, scalp, soles of the feet, between the fingers, and genitals [1]. Prevention efforts can start from cleaning the feet using antibacterial soap and changing socks that are dirty or smelly [2]. However, these efforts are considered impractical. So, it is necessary to have a more practical foot deodorizing innovation, namely Foot Sanitizer Spray. Foot sanitizer Spray in the market contains 70-95% alcohol. The active ingredient contains alcohol as an antibacterial because it has the highest effectiveness against bacteria. Excessive use of alcohol and chemicals can have health effects and irritant effects on the skin. Therefore, its use needs to be reduced by adding active ingredients from natural ingredients that can act as antibacterial, namely coffee beans and Ginger rhizomes.

Coffee is known to contain caffeine which has many benefits for the beauty and health of the human body. Apart from that, coffee also has properties that are known to remove bad odors[3]. Ginger (Zingiber officinale Roscoe) has been known to have antibacterial activity
because it contains phenols, flavonoids, terpenoids, and essential oils [4]. Ginger rhizome has antibacterial activity against Propionibacterium acnes, Pseudomonas aeruginosa, Staphylococcus aureus, and Staphylococcus epidermidis [5].

Stirring in the process of making Foot sanitizer Spray has an important role because it will have an impact on the physical properties of the preparation [2]. In this article, we will review the foot sanitizer Spray formulation with varying stirring speeds and review its physical properties and antibacterial activity. This article also examines how the effect of stirring speed on the physical properties and antibacterial activity of foot sanitizer Spray.

2 Methods

3.1 Extraction of coffee and ginger

Ginger extract was made by maceration method. Maceration method is used because maceration is a simple method of extraction, easy operation, simple tools that only need a soaking vessel, relatively low operating costs, relatively efficient process and no heating. The sprays used were 70% ethanol [5]. Using 70% ethanol is because 70% ethanol is very effective in producing the optimal amount of active ingredients. The spreader used for maceration was 1 liter of 70% ethanol into 100 grams of each ginger and coffee powder.

Maceration is done by soaking 100 grams of ginger root and coffee beans in 1 liter of 70% ethanol, then shaking it for 6 hours using a shaker and leaving it for 18 hours. The maserate is filtered using a vacuum filter and then separated from the pulp. The pulp is macerated again and filtered again 2 times in the same way. All maserate collected was concentrated by means of a rotary evaporator at a temperature of 60°C at a speed of 50 rpm.

3.2 Making footsanitizer spray

The results of ginger and coffee rhizome extract are used as active ingredients in the preparation of Footsanitizer Spray for three formulas, namely with the difference in the stirring speed of Formula 1 500 rpm, Formula 2 1000 rpm and Formula 3 1500 rpm. Each formula is made with the composition of the ratio of ginger and coffee in the formula. 35%: 35%. The preparation of the Footsanitizer Spray formula is carried out by mixing the respective ingredients of Ginger Extract and Coffee Bean Extract as the active substance. Then add 10% glycerin, 0.2% methyl paraben and add ethanol to 50 ml. Table 1 shows the Footsanitizer Spray formula. materials used in the manufacture of Footsanitizer spray formulas, among others Ginger Extract 35%, Coffee Extract 35%, Glycerin 20%, Methyl Paraben 0.2%, Ethanol 70% 50 ml. Testing the physical properties of Foot Sanitizer Spray. The physical properties of the preparation include tests of homogeneity, pH, viscosity and density. In this study, antibacterial activity was tested.

3 Results and Discussion

Foot Sanitizer Spray is made into three formulas (see Table 1), namely based on the difference in the stirring speed of Formula 1 500 rpm, Formula 2 1000 rpm and Formula 3 1500 rpm. Each formula is made with the composition of the ratio of ginger and coffee in Formula
35%: 35%. The preparation of the Foot Sanitizer Spray formula is carried out by mixing the respective ingredients of Ginger Extract and Coffee Bean Extract as the active substance. Then add 10% glycerin, 0.2% methyl paraben and add ethanol to 50 ml.

Table. 1 Foot sanitizer Spray Organoleptic Test Results

<table>
<thead>
<tr>
<th>Material</th>
<th>Formula</th>
<th>Organoleptic Test Results</th>
<th>pH Value</th>
<th>Clarity Testing Results</th>
<th>Homogeneity test results</th>
<th>Density value (gram/ml)</th>
<th>Viscosity value (Cp)</th>
<th>Area of Obstacle (mm²)</th>
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<td>6</td>
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<td>1.91</td>
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<td></td>
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<td></td>
<td></td>
<td>Taste: Soft not sticky</td>
<td></td>
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<td></td>
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<tr>
<td>Ginger: Coffee 35%:35% 5%</td>
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<td></td>
<td></td>
<td>Taste: Soft not sticky</td>
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<td></td>
</tr>
<tr>
<td>Ginger: Coffee 35%:35% 5%</td>
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<td>Taste: Soft not sticky</td>
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</tr>
</tbody>
</table>

Information:
Formula 1: Foot sanitizer Spray with a stirring speed of 500 rpm
Formula 2: Foot sanitizer Spray with stirring speed of 1000 rpm
Formula 3: Foot sanitizer Spray with a stirring speed of 1500 rpm

Based on organoleptic testing, it shows that all formulas have a liquid form, have a dark brown color, have an aromatic smell and have a soft taste that is not sticky.

3.1 Testing the pH of the foot sanitizer spray

PH testing is carried out to find out what the acidity value of the preparations has been made [6]. Acidity (pH) is measured with a pH meter. Topical preparations should be in the skin pH range, between 4.5 - 6.5. The pH value should not be too acidic because it can irritate the skin and also should not be too alkaline because it can cause scaly skin, this is due to damage to the mantle in the stratum corneum of the skin[7]. Each foot sanitizer Spray has a Ph value of 6. The Ph value is still within the ideal pH range.

3.2 Clarity testing foot sanitizer spray

Visual testing of Foot sanitizer Spray preparations is usually performed by someone examining a clean container from the outside under good lighting, obstructed from reflection into his eyes, and on a black and white background, with the series of contents being executed
in a circular action, must be absolutely completely free of small particles that can be seen with the eye [8]. The test results of foot sanitizer Spray are tabulated in table 4.

All Footsanitizer Spray formulas can be seen directly with the naked eye, no visible particles that are insoluble in the Footsanitizer Spray preparation. This proves that the Footsanitizer Spray preparation has good clarity. A preparation in the form of a solution or liquid is said to have good clarity if there are no visible particles that are insoluble in the solution when seen with the naked eye [8].

3.3 Homogeneity testing footsanitizer spray

The homogeneity test is carried out in order to determine whether the preparations made are evenly mixed or not. A good preparation must be homogeneous and free from clumped particles. To be sure, a homogeneity test was carried out [9]. The test is carried out by smearing the preparation on a glass object, then covering it with a deck glass. Then observed with a 40 x 10 magnification microscope [10]. The test results show that all formulas are homogeneous.

3.4 Testing the density of footsanitizer spray

Determination of specific gravity using pycnometer. and based on the ratio of the weight of the liquid in the air at 25 °C to the weight of water with the same volume and temperature. Specific gravity is used as an analytical method to determine liquid compounds, test the identity and purity of medicinal compounds, especially liquids, and to determine the level of solubility / solubility of a substance [11].

The lowest specific gravity value is in formula 1 with a stirring speed of 500 rpm and the highest is in formula 3 with a stirring speed of 1500 rpm. This is because at the stirring speed of 500 rpm the solution has not been completely mixed so that in the formulation process only a few ingredients react. Whereas at the stirring speed of 1500 rpm, the stirring becomes too fast so that it can cause more foam, thus hindering the process of separating the mixture, which causes the density to be higher.

3.5 Testing the viscosity of footsanitizer spray

The viscosity test is carried out to determine how much the consistency of the preparation is and to show the thickness of a preparation that is measured with a viscometer. The spray preparation made is expected to follow Newton's liquid flow properties rules. Preparations that follow Newton's liquid rules provide the best profile when used, i.e. they are easy to remove from storage containers. Newton's flow profile can help push liquid preparations out more easily as in sprays made without the use of propellants. A fluid that follows Newton's flow rules shows a standard linear relationship between shear stress and shear rate. Some of the fluids included in the Newtonian school include water, organic solvents, as well as glycerin.

For these fluids, when comparing shear rates and shear stress, we will get [12]. Based on the results of the viscosity test, it shows that the viscosity value decreases with increasing stirring speed.

3.6 Antibacterial activity test for footsanitizer spray

Testing for antibacterial activity using the agar diffusion method. This method is generally often used compared to other methods because the diffusion method makes it easier to determine
the antimicrobial activity of a preparation by forming a zone of inhibition of bacterial growth from substances that are antibacterial in solid media. The area of inhibition for bacterial growth is the clear area around the disc. The stronger the antibacterial activity, the wider the inhibition area [13]. Antibacterial testing is one thing that needs to be done to determine the effectiveness of Foot Sanitizer Spray on the inhibition of bacteria on the skin of the feet such as Staphylococcus epidermidis.

4 Conclusion

The formulation of Footsanitizer Spray, a combination of coffee bean extract and ginger root, has been successfully formulated. Based on organoleptic testing, all Footsanitizer Spray formulas are liquid, light brown in color, have a distinctive aromatic odor and have a soft taste. The Footsanitizer Spray preparation also has good clarity and homogeneity. The results of the specific gravity test of the three formulas, namely formula 1, formula 2 and formula 3 respectively, are 1,043 grams / ml, 1,060 grams / ml, and 1,067 grams / ml while the viscosity values were 1.91 cp, 1.63 cp, and 1.58 cp, respectively. Formula 3 with stirring 1500 rpm has better antibacterial activity compared to other formulas.

References


Abstract. The purpose of this study was to determine student learning readiness in the pandemic era. The type of this research was a qualitative descriptive study, using a phenomenological approach. The research subjects were 25 students of Faculty Tarbiyah and Teaching Training of IAIM Sinjai. The research subjects were selected based on preliminary observations of the problem under study. The research instruments were observation and interviews. The data analysis technique in this study was the interactive model of Miles and Huberman, where data analysis was carried out during data collection and after data collection in a certain period. The analysis stage includes data reduction, data presentation, and verification or conclusion. The results of this study indicate that the student's learning readiness in the current pandemic era has two sides, namely positive and negative sides. However, the interview analysis tends to be on the negative side, it meant that the students were not ready to do online learning. Viewed from the aspect of emotional readiness. In addition, empirical data found the students were not all financially well off.

Keywords: Readiness level, student learning, pandemic era

1 Introduction

Technological advances have an impact change to many things are no exception in the field of education. Information Technology has revolutionized the way of learning today, where learning at this time is not limited to space class but has gone beyond geography and also time [1]. Learning readiness is the overall state of student readiness, family readiness and school readiness (United Nations International Children's Emergency Fund [UNICEF], 2012; United States Department of Health and Human Services [USDHHS], 2014) where all the circumstances are favorable for students and they ultimately lead them to want to learn immediately. The student readiness is that individual state of student where he or she is physically, mentally and emotionally ready to learn. Similarly, the school readiness is defined as that complete preparedness of school (entire teachers) to create a favorable environment (United Nations Educational, Scientific and Cultural Organization [UNESCO], 2007) which to achieve the best learning among their students [2].

In supporting the expected teaching and learning process, it is necessary to pay attention to the learning readiness of students first. “Learning readiness is the degree of concentration and eagerness to learn among students” [3]. Readiness to learn according to [5], the state of capacity that exists in students in relation to certain teaching goals. In line with the opinion of [6], "Not yet ready, don't learn, learning can't be careless or by force, the name is not ready. People who are not ready to learn are like people who want to pour water, but the shelter has not been prepared so that water is wasted in vain" [7],[8] namely: physical condition, mental condition,
emotional condition, needs (motivation) and knowledge. The COVID-19 pandemic has not only affected adults, but also children. Restrictions on physical interaction space (physical distancing) that take place during the pandemic put mental or psychosocial pressure on children. In general, they complain about several things: the children are already at the saturation level of being at home for a long time, while the internet connection facilities are inadequate [9],[10].

Related to this situation also requires a lot of adjustments that need to be made, especially the learning process. This means that educators are required to be able to maintain physical stamina and mental energy, but also able to maintain significant learning quality in the midst of these conditions, as well as to work around so that learning objectives can be optimally conveyed and absorbed by students.

Based on preliminary data from the student body of the Muhammadiyah Sinjai Islamic Institute, 80% of students come from areas where network usage is not adequate, and economic conditions are still below standard so that it is not possible to conduct distance learning using learning applications that require high data. lots and good network quality [11],[12]. In addition, initial observations show that many students respond negatively if the lecturer requires students to use applications that do not support student devices. Based on this initial data, researchers conducted research on student learning readiness in the current pandemic era.

The results of the study are expected to provide an offer for the application of an effective learning model during distance learning. In addition, the results of this study also become the attention of education observers to cover all problems that arise during distance learning, so as to be able to provide practical solutions for handling distance learning.

2 Method

This type of research is descriptive qualitative research, using a phenomenological approach. The research subjects were 25 students of the Faculty of Tarbiyah and Teacher Training IAIM Sinjai. Research subjects were selected based on initial observations of the problems studied. As for the research instruments are observations and interviews. Data analysis technique in this study is the interactive model of Miles and Huberman, namely data analysis is carried out during data collection, and after data collection within a certain period. 1) Data reduction, namely summarizing and selecting the main things and focusing on the things that are important and looking for themes that are considered important and relevant to the research subject. 2) Display or data presentation, namely the presentation of data in the form of short descriptions, charts, and the like which is a continuation after the data is reduced, 3) Verification or conclusion. Verification is drawing conclusions after the data is patterned, focused and arranged systematically in the form of a narrative, then through the induction method, the data is concluded. So that the meaning of the data can be found in the form of interpretation and argumentation. Conclusions were also verified during the study.

3 Results and Discussions

3.1 Student Readiness

Every individual always experiences a learning process in his life, by learning will allow individuals to experience changes in themselves. These changes include mastery of skills and
changes in attitude. Indicators of learning readiness are seen from several aspects, namely physical conditions, mental conditions, emotional conditions, needs (motivation) and knowledge.

3.2 Learning Readiness Analysis

Readiness Physical Condition

In general, the physical condition of students is ready to learn. This was obtained from interviews with all respondents who said they were ready. As stated by respondent (5) below, “With my healthy body condition and have the desire to learn and have the tools to learn.” Based on the interview with respondent (5), it was found that physically students are ready to learn.

Mental Readiness

The readiness of students' mental conditions can be reflected in their desire to participate in the learning process. Students prepare all the needs and learning needs. This is in line with interviews with respondents (7), stating that: “In my opinion, online learning has not been able to match offline learning, where since offline learning takes place very often I have to find a network to be able to join the learning process and when the lecturer explains, I often can't focus due to many distractions from the environment where I sit studying. It is different when studying directly on campus, where the facilities and infrastructure are indeed available so that no one else can interfere with learning.” Based on interviews with respondents, it is known that students mentally prefer to learn face-to-face, compared to online learning.

Emotional Condition Readiness

The current emotional condition of students while participating in virtual-based learning (online), generally states that it is not interesting to carry out virtual learning. Lack of understanding of the material obtained, because they did not get a direct explanation from the lecturer. This is in accordance with the statement of the respondent (1), "Online learning doesn't appeal to us.” This opinion is in line with the statement of the respondent (2), "Online learning is between interesting and not, depending on the material and lecturers who teach.” Based on the results of the interview, it is known that emotionally, students state that online learning is not interesting, if the lecturer's teaching method and the material presented is not varied.

Readiness Needs (motivation) and Knowledge

Regarding student learning motivation during virtual learning, students feel unmotivated, just because online learning during a pandemic is a must, a necessity that creates compulsion. Respondent's statement (3), stated that, "I am not motivated to take online lectures.”
The lack of student motivation to take online lectures is influenced by several factors, related to funding issues (internet quotas), network problems if they are in areas that have inadequate network quality.

However, there are also respondents who see the positive side of this online learning phenomenon. This can be seen in the statement of the respondent (10), stating that:

“I am quite motivated, because online learning has taught me the importance of appreciating the time together when we are together and face to face with lecturers and friends. In addition, my motivation for learning during the pandemic is that I can attend many seminars and webinars from various places, so that I can still gain knowledge and experience.”

3.3 Discussion

The readiness of students to study in the current pandemic era is still a topic of discussion for all circles. Readiness to learn includes physical conditions, mental conditions, emotional conditions, needs (motivation) and knowledge. Judging from the physical condition, students are ready to learn, students have a healthy physique to study. However, currently students are in a very tired condition because of the intensity of interacting online. Related to eye health problems that are tired when you have to stare at a cellphone or computer screen when learning using videos.

Students’ learning readiness is seen from the readiness of their mental condition, students mentally prefer to learn face-to-face, compared to online learning.

Judging from the readiness of students’ emotional conditions, it is known that students feel that online learning is not interesting, if the lecturer's teaching method is not varied and the material presented is not well controlled by the lecturer concerned.

Readiness to learn in terms of conditions of need (motivation) and knowledge, students are motivated enough to gain knowledge. However, high motivation, but not supported by other supporting elements such as data quotas and good network quality, then this remains an obstacle in the learning process. Especially learning during the current pandemic.

4 Conclusion

Based on the results of interview data analysis, it was found that the study readiness of students in the current pandemic era has two sides, namely positive and negative sides. However, the interview analysis tends to be on the negative side, meaning that students are not ready to do online learning.

Acknowledgment

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References

Analysis of Information Literacy on Diffable Students

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Abstract. The purpose of this study is to find out literary analysis information on students with disabilities at the State University of Malang. In this current study, a descriptive qualitative approach was applied as the research method. Descriptive qualitative research is research used to gain insight into an issue/problem in a natural setting. During the study, the researchers focused on analyzing the information literacy of students with disabilities that are based on their psychological condition, cognitive, and demographic. The results of this study were found analysis literacy in the context of information needs; the students need information according to the field they are studying. They have an interest in other fields such as music, sports, chess, and tend to seek information in accordance with that field. In the context of information literacy analysis based on information-seeking behavior on students with disabilities, they already have a need, and they do a search, the media used is the internet. From the aspect of information processing and use, it is found that they evaluate the information. Suggestion for further researchers or other researchers, it is hoped that the results of this study can be used as a reference or source in conducting research related to information literacy in students with disabilities.

Keywords: Information literacy, diffable

1 Introduction

1.1. Background

The increasing of education quality is in line with the increasingly advanced times, the efforts made by the government are continuously encouraged and enhanced so that the community can master the aspects of knowledge. One of the basic efforts completed by the government is to grow and increase the reading curiosity of the community. Fostering and increasing the reading interest of society also has many dilemmas because of the different abilities of everyone in society. For that reason, various efforts have been developed by the government, one of them is the national literacy movement, but literacy does not automatically succeed in growing and increasing the ability of reading awareness, it takes a long process to eradicate low literacy.

The results of the assessment by the Programme for International Student Assessment (PISA) show that in 2015 Indonesia is still in the top 10 of the lowest rank, specifically 62 out of 72 countries with an average score of 395. There is a fascinating point from the three aspects of literacy, namely reading, math skills, and science skills which have been increased from the previous year in 2012. “Our literacy level is still low; it can be realized from the PISA score which is still below the average of OECD countries. Our PISA score even lost to Vietnam”. Meanwhile, according to the Indonesian National Assessment Programme (INAP) in 2016, the
literacy condition in the community in terms of reading ability was 46.83% which is included in the low category.

One of the government programs that often carried out by schools is the school literacy movement program or also the information literacy movement. Information literacy can be defined as a person’s ability to read and write something that is being discussed, heard, and expressed. There are various definitions of literacy which proportional to the development of human knowledge and science as well as its results. Information literacy has a concept originating from the United States, containing the explanation that it is essentially used to respond to the uncontrolled growth from its quality and quantity. This definition has been debated by information experts, especially the contention regarding the use of the term “information literacy”. The term information literacy is not always acceptable, such as Carbo who proposed the term information media. Meanwhile, Goestch and Kaufman in Sulistyobasuki use the term information competency for the term information literacy. In this book, the author uses the term information literacy in the direction of facilitating an understanding of information literacy [1].

The literacy components that are carried out, as follows (1) Early Literacy, the actions of early literacy are listening, understanding spoken language, and communicating through pictures and speech which formed by the experience of interacting with the social environment at home. (2) Basic Literacy, the ability to listen, speak, read, write, and count (counting) is related to the ability of analysis to take into account (calculating), perceive information (perceiving), communicate, and describe information (drawing) based on understanding and personal conclusion. (3) Library Literacy is the ability to comprehend how to differentiate the reading of fiction and nonfiction, utilize reference collections and periodicals, understand the Dewey Decimal System, use catalogs and indexes, have the knowledge to understand the information while completing a paper, study, work, or overcome problems. (4) Media Literacy, the aptitude to recognize the various form of media such as printed media, electronic media (radio media, television media), digital media (internet media), and understand their intended use. (5) Technology Literacy is the capability to understand the equipment that follows technology, such as hardware, software, ethics, and etiquette in utilizing technology. The ability to comprehend technology for printing, presenting, and accessing the internet. (6) Visual Literacy is an advanced understanding between media literacy and technology literacy by operating the visual materials and the audio-visual critically and with dignity.

Not a mere given to normal people, information literacy activities can be used or applied to people who have special needs (diffable) as well, because basically, they can absorb information just like any normal human being, but the problem is how we accomplish the need of information literacy for them (diffable). From the data obtained, there are about 40 students with disabilities at the State University of Malang. For this reason, the researcher decided to do research or analysis of information literacy on students with disabilities at the State University of Malang.

The research problem of this study is “How is The Information Literacy Analysis for students with disabilities at the State University of Malang?”. The research objective of this paper is identify the analysis of information literacy on students with disabilities at the State University of Malang. Practically, the result of this study can determine the analysis of information literacy on students with disabilities at the State University of Malang.

1.2 Review of related literature

1.2.1 Information literacy
According to Johnston and Webber [2], information literacy is an accumulation of the proper information behavior by utilizing the media and the channel in any form, as well as applying critical thinking skill to get the information in accordance with the information requirements. Based on this definition, the researchers used a behavioral model developed by TD. Willson to analyze the information literacy condition of the students with disabilities. This model was chosen because it can present the overall information behavior of an individual and explain the external and internal motivations behind the appearance of such information behavior.

This model is applicable in analyzing information literacy of disabled students because it can provide the data on how their diffability affects the psychological and individual cognitive condition, and how the interaction with the social environment also affect the individual information behavior which will eventually affect their level of information literacy.

Wilson described the information behavior model using a cycle in which one aspect is interconnected with another. A person’s information behavior is first triggered by the need for information. A person who has this information need does not immediately realize their information need or changes their information need into information behavior. Information needs are realized when a person understands the pressure and life problems experienced, and the information that they have cannot be used yet to solve the problems. Afterward, information needs will change to information behavior when a person considers internal factors related to what risk will be obtained when they fulfill or do not fulfill their information needs [3].

The following Fig. 1 shows the information behavior model by TD. Wilson that used in this study:

![Fig. 1. Wilson 1996 model of information behavior][4]

Furthermore, individuals will also consider the external factors to decided that they will change their information needs into information behavior. Alluding to Wilson [4], some aspects can influence the information behavior of the individual, as follows:

1.2.1.1. Demographic (demographic)
A person’s demographic condition is related to the data population. The demographic condition of a person contains gender, age, education, origin, location/area of residence, nationality, and others. Someone who has an undergraduate education certainly has a different behavior from a high school graduate. Likewise related to the location of residence. If someone lives in a mountainous area far from the internet connection, obviously that person will only rely on certain information sources (books, magazines, newspapers, television) in their information behavior. Unlike someone who lives in a city or an area that can reach the internet connection will have a different information behavior in satisfying their information needs.

1.2.1.2. Role-related or interpersonal (one’s role in society)

A person’s role in society will affect that person’s information behavior. A person’s role will also have an impact on the personal and interpersonal relationships in society. For example, the head of the neighborhood must have a more complex information behavior than ordinary people. The head of the neighborhood needs comprehensive information; therefore, it affects the information behavior that is carried out. A librarian and student also have different information behavior in fulfilling their information needs. If a librarian deals with more complex sources of information and know-how to trace and find out the information appropriately, a student might not be able to do the same thing because of the limited abilities and knowledge.

1.2.1.3. Environment (environment)

A condition that exists around the individuals can give an impact on their information behavior directly or indirectly. In this case, the environment has an extensive sense, it can be interpreted as a work environment, socio-cultural, economic, and political [4].

Besides the five factors above, information behavior is also influenced by risk factors and rewards obtained in browsing the information. At this point, a person will think twice about doing something, especially regarding information search and discovery. It is certainly adjusted to the existing condition of everyone. Pendit [3] provides an example related to this case, for instance, a well-known scientist felt he would look stupid in front of a librarian. This is quite different when compared to the lecturers who do not maintenance about their image ahead of the librarian. The scientists may feel prestige when asking the librarians, but the lecturers might do not care because they will get the appropriate rewards or benefits from questioning the librarians.

The next step of this model is information-seeking behavior. People have various behavior in searching for information, some act with passive attention, for example, looking around or doing a simple observation. There is also a person who acts as a passive seeker by asking friends or browsing carelessly. Not a mere acting as the passive seeker, some of them do an active search by looking for information that has in accordance with what they want and then comparing the information they get. Furthermore, they also have reached the advanced search stage, for instance, using advanced search, Boolean operator, and others. In conclusion, each individual certainly has a different way of searching for information.

The final step is the processing and the use of information to solve the problem faced by individuals, when the information is used, it will bring up the other need for information. Therefore, the process is still going on continuously.

1.2.2. Diffable
Arif Maftuhin stated that diffable or differently-abled is a concept which used to describe the individual with different abilities, in which these people are not like they cannot do something, but they do it in a different way [5] Based on Law number 4 of 1997 on disabilities, it states that disabilities are divided into three categories, namely physical, mental, and multiple. Physical contains the body, deaf, and blind, while mental consists of mental retardation and ex-psychotic disabilities. Mental retardation is someone who has different development between their mental and biological, meanwhile, ex-psychotic is someone who has experienced mental disorders.

Research which is conducted by Hastuti, et al shows that people with disabilities have a low information literacy level, it occurs due to several factors, as follows a) the lack of access to information technology. Based on the data, it is discovered that only 55.28% of people with disabilities have access to information technology and the internet. Even for people with severe disabilities, only 16.08% of them who has access to the internet. b) the minimal use of sign language, braille, and augmentative communication. Besides the access to information in the form of technology, the right to information in the form of sign language, braille, and augmentative communication in several official activities also have not been obtained. The awareness of activity organizers regarding the information accessibility for people with disabilities is still deficient. c) high illiteracy percentage among people with disabilities. In 2018, 99.28% of Indonesia’s population was literate, but, if it is looked more closely, the literacy rate for people with disabilities is below that number or about 87.63% [6].

Low level of information literacy influences the low access to education, health, and profession. In the education sector, it was found that only 40.51% of people with disabilities have an elementary school certificate, the number of special schools is also limited. In 2015, the data shows that out of 1.5 million children with disabilities, only 55.836 of them received education. Meanwhile, in the health sector, people with disabilities unable to get quality health services because most of them are in the middle to lower class economy. The last one is related to profession, many people with disabilities have low education, therefore, they are generally cannot get a decent wage job and most of them earn below the minimum wage [6].

2 Method

The research methodology of Information Literacy analysis on Diffable Students used a descriptive qualitative approach. Descriptive qualitative research is a research that used to gain a depth understanding of an issue/problem in its natural setting, where during the study the researcher analyzed the information literacy of diffable students based on their psychological, cognitive, and demographic conditions. This study used various of data sources so that researchers can develop a comprehensive picture of the problems/issues being studied [7]. In line with this, the target in this study is not the measurement, but in-depth understanding and analysis of student’s information literacy in its natural setting.

3 Result and Discussion

3.1 Result

3.1.1 Data informant
The data (Table 1) informants of this study were 10 difable students who studying at the State University of Malang. Based on the table of the data informants which are difable students of State University of Malang, 70% are male and 30% are female.

Table 1. Difable students

<table>
<thead>
<tr>
<th>No.</th>
<th>Gender of Difable Informant</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Male</td>
<td>70%</td>
</tr>
<tr>
<td>2.</td>
<td>Female</td>
<td>30%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

The Table 2 below describes the data informants based on the type of difable. The data show that 40% of them are blind, 30% are deaf, 20% are quadriplegic, and 10% other means that they also have the type of difable, namely paralysis, spinal cord narrowing, autism.

Table 2. Types of difable

<table>
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<th>No</th>
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<th>Percentage</th>
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<tbody>
<tr>
<td>1</td>
<td>Deaf</td>
<td>30%</td>
</tr>
<tr>
<td>2</td>
<td>Blind</td>
<td>40%</td>
</tr>
<tr>
<td>3</td>
<td>Quadriplegic</td>
<td>20%</td>
</tr>
<tr>
<td>4</td>
<td>Etc</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

Based on the informant’s answer (difable people) regarding to the respond of people around them towards their presence, the researchers found that people around the difable can understand, kind, and help them to face their difficulties, but there are also some informants who say that the people around them have a lack of understanding, misinterpreted, or even do not care about them.

3.1.2 Context of Information needs

Alluding to the context of information needs of difable students at the State University of Malang, 10 informants answered simultaneously that they have an interest toward certain fields. Furthermore, in terms of looking for information related to that field (which you tend to look for/like) they simultaneously answer “yes” which means that they have an interest to certain fields and they definitely will do a search related to the fields they are looking for.

3.1.3 The mechanism of activation 1

"I want to be a useful person, help my difable friends, and be able to make my parents proud” (MG/W/01/09/2020).

From the informant statement above, it was very clear that in this first activation, most of the informants stated that they want to be useful, help difable friends and make the parents proud, these three things are the highest answer of the informants. Even with their limitations, they still have high expectations.

The second answer obtained from the results of their interview; they had a hope that the available information could help the informants in overcoming all the existing problems.

"Wish this information can help me” (IG/W/05/09/2020)
The statement above was in accordance with the answer from one of the informants. 

"Information is sought based on the problems that we experienced, for example, the economic program that we are currently experiencing, so we tend to look for information about how the solution of this situation can be connected to any business that can be done in the present era. Therefore, confidently the information that are looking for needs to be considered and when the information is looking for obviously the information is needed "(IM/W/27/09/2020)

The third answer is they have high motivation, which is they want another ability (soft skill).

"My motivation is to increase my life skills and to be taught again to others" (EC / W / 26/09/2020)

From several answers, there were informants who stated that their motivation was not directly answering but firstly they sought the truth of the information.

"Looking for the truth from these sources" (GA/W/01/09/2020)

One respondent with the initials AS stated that their motivation was because they have a curiosity in interesting things

"Usually out of curiosity" (AS/W/28/09/2020)

3.1.4 Intermediate variable

In this section, to facilitate initial identification, which is related to age, where it comes from, education, gender, pocket money, the involvement in the organization, the role in the organization, whether the role in the organization affects the seeking-information behavior, how these special needs affect the way you search for information, how the people around you treat you (related to your disabilities), the respond of other people affect information-seeking behavior based on the age factor. three informants were 20 years old; three informants were 22 years old. two people are 21 years old, one person is 21 years, and one person is 25 years old, it reflects the informant data in terms of informant age which is more heterogeneous in terms of their age.

From the city of origin, these diffable students come from various regions, from Malang, Bali, Jombang, Kalimantan, Surabaya, Sidoarjo. Even though they were from different cities, their intention to learn and seek knowledge was still carried out with enthusiasm despite their condition. it could be seen from the data interview, the researchers found their place in the city of origin even though they are mostly from urban areas, they also came from remote areas as revealed by them.

The level of education taken by the informants at this time mostly took the undergraduate level at the State University of Malang, then 1 person took the diploma level at the State University of Malang, it showed that their awareness of the level of education, they were trying to make them not inferior to normal people in general.

"I'm currently studying undergraduate, and just graduated from high school" (MG, GA, IG, EC, IM, USA, JP, AZ, RK/W/28/09/2020).

Meanwhile, only one informant has a diploma education

"I am studying in diploma of Fashion Design" (EN/ W/01/10/2020)

Whereas for revenues or allowances in a month, the informants have various answers, most of them or about five informants, got pocket money or an income less than one million rupiah.

"I get a revenue of two hundred thousand rupiah/month" MG/W 01/10/2020)

"I get an allowance of three hundred thousand rupiah/month" (GA/ W / 25/09/2020)

From the income variation, it was also found that there were two informants who answered uncertain in this matter, especially since the condition of the nation is affected by Covid 19.
"It is uncertain, especially when it is currently experiencing a crisis because of the Covid 19 pandemic" (EC/W/26/09/2020)

3.1.5 The mechanism of activation two

The activation mechanism carried out by researchers was what do you consider when deciding to find/not find the information, based on your previous information-seeking experience, did you always find the information you need, If the information was used, can it solve the problems that you were facing.

The consideration of deciding whether to seek or not to seek information, five informants stated that they needed this information.

"Needs (task and requirements to seek related information) (EC, IM, AZ, RK, EN / W/28/09/2020).

3.1.6 Behavior of information searches

Behavior of the search for information carried out by diffable student informants at the State University of Malang were described in the following interview, the researcher did the questioning instrument related to these things, as follows

How the trend of the behavior of the search for information and what media did you use to find the information.

The tendency of the behavior of information searches from diffable students of the State University of Malang found some data from informants, as many as five respondents stated that they already knew the information needs and then carried out information searches, the point here was that they already know what the informants want, from this need arose a desire to search for the desired information. The answers were as follows

"Has already known the need for information, then do an information search" (EN, AZ, JP, EC, GA/W/28/09/2020)

Then there were 3 informants who stated that the tendency for the behavior of information search was that they carried out continuous information searches (there were certain topics that were followed) such as when they were doing the lecture assignments, they had already existing topics, just how they looked for that information.

The media used in information retrieval by diffable informants/students of the State University of Malang is one of the important media, it was found that 9 informants stated that the media that often used was the Internet.

"The medium that I used was the internet" (MG, GA, IG, EC, IM, US, JP, AZ, EN/W/01/10/2020).

3.2. Discussion

3.2.1 Context of information needs

From the context of information needs, informants stated that they really need this information even with the existing limitations, according to Wilson's theory a person's behavior of information was triggered by information needs. They required the information, then from
the information needs arose behavior of information, among the information they were looking for information based on the field that has studied.

### 3.2.2 The mechanism of activation one

After knowing the activities that have an effect on the emergence of information needs, the next step was to analyze the mechanism of activation. The mechanism of activation in Wilson’s information behavior model spawns two times. The first activation mechanism was created after the context of information needs which attempts to explain how the process of information needs may or may not change. The first activation, the researchers conducted interviews with informants which was related to when diffable students were aware for information needs, what motivation was taken by them into consideration to decide whether the information has been sought or not, most of the answered that there is a desire to solve the problem.

### 3.2.3 Intermediate variable

In the intermediary variable, the researcher wanted to describe how the conditions and circumstances of the informants of diffable students of the State University of Malang. In average, the circumstance of diffable students, most of them were students in Undergraduate program (S1) although their economic level was not same between one and other. The place of origin was also heterogeneous which came from various regions in East Java. The intermediate variable intends to find out whether the diffable students want to achieve the information needs and how the behaviors of diffable students. The intermediate variables can open the perceptions of the informants which means that this intermediate variable did a cross-check whether the behaviors towards the information needs have relation with the condition of the diffable students.

### 3.2.4 The mechanism of activation two

The appearance of a second activation mechanism came after the intervention variable which explained the theory of risk and reward along the motivation for achieving success. The theory of risk and reward in Wilson's theory was related to the search for information and what rewards will be obtained from the surrounding environment and from within oneself (motivation for success) [8].

### 3.2.5 Behavior of information searches

The tendency of behavior of information searches from diffable students of the State University of Malang found some data from informants which most of them stated that they already knew the information needs and then carried out information searches. At this point, they have already known what the informants wanted, from that need arose the wish to search for the desired information.
4 Conclusion

Analysis of information literacy on diffable students based on Wilson's theory gained several conclusions. First, Analysis of information literacy found that although they have limitations (diffable) they still need information, this need makes a strong desire to seek information according to the things they need. Second, analysis of literacy in the first activation mechanism found that their motivation for the information need is to solve problems, they have limitations, sometimes they were still found to be getting things that are not good from the community, that was what causes them to stay motivated to seek information as an escape and for personal pursuits. Third, analysis of information literacy, from the condition of diffable students, it is clearly that they came from various regions in East Java. Economically, their income is not that big in each month, but from here they were still motivated to keep looking for information as a necessity. Fourth, Analysis of information literacy based on the behavior of information searches, they understand the needs they want, this is what ultimately leads to behavior of information searches. Furthermore, suggestions for further researchers or other researchers, it is hoped that the results of this study can be used as a reference or source in conducting a research related to information literacy on diffable students.

Acknowledgement

The researcher would like to say thank you for those who help in the completion of this research and article, they are the Head of the State University of Malang as the sponsor and funder of this research, Dean at Faculty of Letter of the State University of Malang, the lecturers, and the students for the support.

References

Kaligesing Goat Productivity by Giving Fermented Animal Herbal Medicine

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Abstract. The research objective was to determine the productivity of kaligesing goats by providing fermented animal herbal medicine. PO treatment is a control that is without the addition of fermented animal herbal medicine, P50 is the provision of animal fermented herbal medicine as much as 50 ml / head / day, P100 is the provision of animal fermented herbal medicine as much as 100 ml / head / day, and P150 is the provision of animal fermented herbal medicine as much as 150 ml / head / day. The results of this study were the body weight of the Kaligesing goat in this study ranged from 16.33 ± 1.20 - 20.25 ± 2.14 kg. Provision of fermented animal herbal medicine as much as 50 ml / head / day can increase body weight gain. The increase in body weight in the control treatment, namely 29.8 ± 5.95, increased to 178.57 ± 35.71 with the addition of fermented herbal medicine of 50 ml / head / day. Consumption of goats or kaligesing goats in this study ranged from 160.34 ± 2 - 201.44 ± 0.06. The feed conversion in the treatment ranged from 15.77 ± 5.32 to 66.59 ± 29.28. Provision of fermented animal herbal medicine as much as 50 ml / head / day can increase feed efficiency. The feed efficiency in this study ranged from 10.02 ± 1.96% - 69.09 ± 14.79%. The conclusion of this study is that the initial body weight of the Kaligesing goat shows no significant effect.

Keywords: Etawah, fermented, animal, herbal, medicine

1 Introduction

The development and interest of breeders in cultivating Ettawa goats is increasing rapidly from year to year. The results obtained from raising Ettawa goats include sales of broodstock, calves and milk. Another addition is the result of processing goat manure into organic fertilizer. Apart from the results obtained above, currently what is booming in the market is the sale of ettawa goat milk [1]. Ettawah goat is a dual-purpose goat, which is a milk and meat producer developed in Kaligesing District, Purworejo Regency, Indonesia since 1932. At that time the Dutch government brought ettawa cows from India to be crossed with local goats (goat beans). The results of these crosses were raised by the community in Kaligesing District, Purworejo Regency. The aim of the Dutch government to bring in Ettawa goats from India was to utilize waste from a plantation that was being developed in Kaligesing District, Purworejo Regency. The ettawa goat crossed with local goats produces crossed ettawa, with the aim of getting sires with high productivity and can live well in conditions in Indonesia. During its development, crossbreed ettawah goats grew faster in other areas than in Kaligesing itself. To maintain Ettawah Peranakan goat germplasm, the Government of the Republic of Indonesia issued a Decree of the Minister of Agriculture of the Republic of Indonesia Number 346 / Kpts / PK.020
5/2016 as a source area for Kaligesing goat seeds [2]. Most of the Kaligesing goat farms in Kaligesing were not well managed, especially in terms of feed and health. To increase production, it is necessary to fulfill the nutritional and health needs of Kaligesing goats by providing supplementation feed.

Kaligesing area is a mountainous area planted with plantation crops and planted with empon-empon [3]. Farmers can harvest empon-empon at any time while waiting for a long harvest for plantation crops [4]. The existence of these empon-empons makes it easier for breeders to obtain traditional medicines, so that traditional medicines can be obtained from the surrounding environment. Factory-made drugs have high prices and chemicals so farmers have other alternatives in caring for their animals by providing animal herbal medicine. Animal jamu is a medicinal plant made according to its interests and functions which were usually selected from one type or several types of medicinal plants. This fermented animal herbal medicine is made with a mixture of 9 medicinal plants, namely garlic, kencur, ginger, galangal, turmeric, ginger, cinnamon, god's crown then mixed with molasses or brown sugar and EM4. This mixture is fermented for 6 days [5]. Animal herbal fermentation is one of the technologies in the manufacture of animal herbal medicine. The provision of animal fermented herbal medicine has been widely used in chickens which resulted in a decrease in the percentage of belly fat [6]. The application of animal herbal medicine is also carried out on sheep to improve feed digestibility [7]. Giving herbs to etawah crossbred goats only on a few empon-empon, namely ginger (ginger) and turmeric (curcuma domestic val) which can increase body weight gain [8]. The application of fermented animal herbal medicine with a composition of 9 medicinal plants, molasses or brown sugar and EM4 in goats has never been done. Therefore, it is necessary to do research on fermented animal herbal medicine on the productivity of Kaligesing Goats. Kaligasing goat productivity can be observed at initial growth, body weight gain, feed consumption, feed conversion ratio and feed efficiency. The purpose of this study was to determine the productivity of kaligesing goats by giving fermented animal herbs.

2 Method

2.1 Research material

The research location was conducted in the Ngudimulyo Farmers Group, Kaligono Kaligesing Village, Purworejo District, Central Java Province, Indonesia. The materials used were 12 female Kaligesing goats with a body weight of 14-24.5 kg. The tools used during the implementation of the research include: an experimental cage, a set of tools for making fermented animal herbal medicine and a scale. The basal material used is the leaves of waru and leaves of gamal. The medicinal feed is fermented animal herbal medicine.

2.2 Research procedure

Basal feed is given twice a day, namely during the day and at night. Feed and water were given adlibitum. Fermented animal herbal medicine is given every day with a dose according to treatment. The composition of the herbal fermentation ingredients [5] is presented in Table 1. The process of making fermented herbal medicine is presented in Figure 1.
Table 1. Composition of ingredients for fermented animal herbal medicine

<table>
<thead>
<tr>
<th>Ingredients for medicinal plants and spices</th>
<th>Part used</th>
<th>Total</th>
<th>Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Garlic (Allium sativum L)</td>
<td>Root tubers</td>
<td>250 g</td>
<td>Antibacterial [9]</td>
</tr>
<tr>
<td>Galagal (Kaempferia galangal L)</td>
<td>Rhizome</td>
<td>250 g</td>
<td>Antimicrobial [5], Anti Fungal [10]</td>
</tr>
<tr>
<td>Ginger (Gingiber officinale Rose)</td>
<td>Rhizome</td>
<td>125 g</td>
<td>Palability [5]</td>
</tr>
<tr>
<td>Galangal (Langkuas galangal Stunz)</td>
<td>Rhizome</td>
<td>125 g</td>
<td>Anti Fungal [10]</td>
</tr>
<tr>
<td>Turmeric (Curcuma domesatica Val)</td>
<td>Rhizome</td>
<td>125 g</td>
<td>Antimicrobial [5]</td>
</tr>
<tr>
<td>Temulawak (Curcuma xanthorhiza Roxb)</td>
<td>Rhizome</td>
<td>125 g</td>
<td>Palability [8]</td>
</tr>
<tr>
<td>Cinnamon (Curcuma burmanil B)</td>
<td>Bark</td>
<td>62.5 g</td>
<td>Antimicrobial [5]</td>
</tr>
<tr>
<td>Betel (Piper betle L)</td>
<td>Leaf</td>
<td>62.5 g</td>
<td>Antibacterial [11]</td>
</tr>
<tr>
<td>The crown of the god (Phaleria macrocorpa Boerl)</td>
<td>Leaf</td>
<td>62.5 g</td>
<td>Antibacterial [12]</td>
</tr>
<tr>
<td>Molasses or brown sugar</td>
<td>Solution</td>
<td>250 ml</td>
<td>Energy Sources [13]</td>
</tr>
<tr>
<td>EM4 atau M-Bio</td>
<td>Solution</td>
<td>250 ml</td>
<td>Source of Microorganisms</td>
</tr>
</tbody>
</table>

The experimental design used was a randomized block design with 4 treatments and 3 replications. The treatment in this study was the level of giving fermented animal herbal medicine with the composition:
- **P0** = basic feed + without the addition of fermented animal herbs
- **P50** = basic feed + fermented animal herbs as much as 50 ml per day
- **P100** = basic feed + fermented animal herbs as much as 100 ml per day
- **P150** = basic feed + fermented animal herbs as much as 150 ml per day

The pre-research was conducted for 2 weeks so that the goats could adapt to the research feed. Data were taken for 4 weeks. The parameters observed in this study were:
- Initial weigh. Initial body weight was measured by weighing the weight of each kaligesing goat at the start of the study
- Weight gain. Measurement of weight gain used the method [14], namely the gain of body weight by weighing each goat and carried out every week.
- Feed consumption. Feed consumption was measured by weighing the feed given (g / head / day) - remaining feed (g / head / day) [15].
- Feed conversion. Feed conversion was obtained by dividing the amount of feed consumed by the body weight gain during maintenance [15].
- Feed efficiency. Feed efficiency was obtained by dividing the number of daily body weight with feed consumed with the same unit weight [8].
2.3 Statistic analysis

The data obtained were analyzed using analysis of variance (ANOVA) with the help of SPSS 18. If there was a significant difference, it will be followed by Duncan's distance test.

3 Result and Discussion

The average initial body weight, body weight gain, feed consumption, feed conversion and feed efficiency of Kaligesing goats with the addition of fermented animal herbs were presented in Table 2.

3.1 Initial weight

The average body weight was presented in Table 2. The Kaligesing goat's body weight in this study ranged from 16.33 ± 1.20 - 20.25 ± 2.14 kg. These results were still in the range of weight of cross-breed female Kaligesingham goats, namely 16.80 kg [16] and 35.00 kg [17]. The results of the analysis of various initial body weight of the Kaligesing goat did not show a significant effect (P>0.05), so that the sample could be used for research with an acceptable degree of error.
Table 2. Average initial body weight, body weight gain, feed intake, feed conversion and feed efficiency of Kaligesing Goats with the addition of fermented animal herbs

<table>
<thead>
<tr>
<th>Treatment</th>
<th>P0</th>
<th>P50</th>
<th>P100</th>
<th>P150</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial body weight</td>
<td>20.25 ± 2.14</td>
<td>16.5 ± 0.76</td>
<td>16.33 ± 1.20</td>
<td>19.66 ± 0.88</td>
</tr>
<tr>
<td>ADG (g/head/day)</td>
<td>29.8 ± 5.95a</td>
<td>178.57 ± 35.71b</td>
<td>166.67 ± 23.81b</td>
<td>130.95 ± 11.90b</td>
</tr>
<tr>
<td>Feed intake (g/head/day)</td>
<td>172.08 ± 16.64</td>
<td>201.44 ± 9.452</td>
<td>169.86 ± 9.76</td>
<td>160.34 ± 16.42</td>
</tr>
<tr>
<td>FCR</td>
<td>66.59 ± 29.28a</td>
<td>18.68 ± 8.08b</td>
<td>15.77 ± 5.32b</td>
<td>21.18 ± 1.64b</td>
</tr>
<tr>
<td>Feed efficiency</td>
<td>10.02 ± 1.96b</td>
<td>63.03 ± 13.66a</td>
<td>69.09 ± 14.79a</td>
<td>47.39 ± 2.17a</td>
</tr>
</tbody>
</table>

P0: Control feed, P50: 50 ml of fermented animal herbal medicine, P100: 100 ml of fermented animal herbal medicine, P150: 150 ml of fermented animal herbal medicine. a,b different superscripts at the same row indicate significant differences (P<0.05).

3.2 Average daily gain

The average daily gain (ADG) was presented in Table 2. The Kaligesing goat's ADG in this study ranged from 29.8 - 178.57 g / day, this result was still in the range reported [18], namely 110.07 ± 29.90 g / day, and reported [19] was 59.00 ± 19.23 - 67.58 ± 17.5. The results of the analysis of the variety of giving fermented animal herbal medicine to Kaligesing goats showed a significant effect (P<0.05) on ADG. The addition of herbs increases ADG, this was because herbs can reduce the protozoa population so that the growth of lactic acid bacteria in the rumen increases, while the Escherichia coli bacteria were inhibited by the presence of garlic. Herbs can also increase rumen fluid NH3 levels, and improve digestibility in-vitro [7][9]. medicinal plants containing active substances including terpenoids, alkaloids, flavonoids, essential oils, phenols, curcuminoid, allicin which often functions as antimicrobial, anti-fungal and antioxidant will suppress the growth of gram-negative bacteria and maintain endurance [9][20-23]. The addition of EM-4 to herbal medicine, where EM-4 contains lactic acid bacteria which can lower the pH in the intestine. The decrease in pH in the digestive tract of the goat will increase the motility of the intestinal wall lining, so that the surface area of the intestinal wall increases, this will result in an increase in the absorption rate of the intestinal wall. Because many substances in the feed were absorbed, the physiological process of digestion was getting better, so that the animal body can form or increase the size of new tissue. Because many substances in the feed were absorbed, the physiological process of digestion was getting better, so that the animal body can form or increase the size of new tissue. The result of the growth or development of new tissue has an effect on ADG [24].

3.3 Feed intake

The average consumption of Kaligesing goats was presented in Table 2. Consumption of goats in this study ranged from 160.34 ± 2 - 201.44 ± 0.06. This result was lower than reported [25] of 246.91 - 294.91 g / kg / day and higher than reported [26] of 30.7 - 38.4 g / kg / day. The results of the analysis of the diversity of the Kaligesing goat fermented herbal medicine did not show a significant effect (P>0.05) on feed consumption. The ingredients of jamu, namely ginger, galangal, turmeric, molasses, and cinnamon were used to increase appetite and maintain animal stamina [24]. Fermented animal herbal medicine containing empon-empon, namely
ginger and turmeric, has an active substance, namely curcumin which increases the activity of the immune system in animals. The essential oil in curcumin stimulates the central nervous system, which in turn results in increased appetite and nutrient consumption. However, fermented animal herbal medicine has a sour taste which reduces its delicacy. better palatability of fresh feed than fermented feed [27]. So that feed consumption does not show a real difference.

3.4 Feed conversion ratio

The average feed conversion ratio for Kaligesing goats can be seen in Table 3. Feed conversion in the treatment ranged from 15.77 ± 5.32 - 66.59 ± 29.28. These results were within the reported ranges [28], from 42 -17.8 and 51.75 to 67.75. The results of the analysis of the variety of animal herbal medicine for etawah Kaligesing goat showed a significant effect (P<0.05) on the feed conversion ratio. The feed conversion ratio was an indicator that can provide an overview of the level of efficiency of use. The lower the FCR, the higher the efficiency of ration use. The use of fermented animal herbal medicine will reduce feed conversion, although it does not affect feed consumption. Fermented animal herbal medicine contains spices that can suppress the growth of protozoa so that the growth of bacteria, especially lactic acid bacteria, increases. The increase in lactic acid bacteria in the rumen will suppress the growth of E coli bacteria. These results were the same as those reported by [7] that giving herbs will increase the digestibility of feed. In addition to medicinal plant content, fermentative animal herbal medicine also contains EM4 which will aid in digestion of food. Probiotics (EM-4) can balance microorganisms in the digestive tract of animals, increase appetite, nourish animals, reduce stress, improve the quality of animal production, reduce cage odors and the environment [29]. Herbal medicine can increase feed efficiency through FCR (Feed Conversion Ratio) [30].

3.5 Feed efficiency

The results of the analysis of the variety of the provision of fermented animal herbal medicine to the Kaligesing goat showed significantly different results (P<0.05) on feed efficiency. The average feed efficiency of the Kaligesing goat was shown in Table 3. The feed efficiency in this study ranged from 10.02 ± 1.96% - 69.09 ± 14.79%. Feed efficiency of male Ettawa goats feeding Temulawak (Curcuma xanthoriza Roxb) and turmeric (Curcuma domestik Val) resulted in feed efficiency of 18.25-23.34% [8]. Feed efficiency was the opposite of feed conversion, the higher the feed efficiency value, the less feed was needed to produce one kilogram of meat. The addition of fermented animal herbal medicine increases feed efficiency. fermented animal herbal medicine contains active ingredients that were able to suppress the protozoa population, so that bacteria and fungi develop well so that they can degrade fibrous feed more optimally, thereby increasing the digestibility of the feed. Kaligesing goat feed with high fiber can be digested maximally in the rumen with the addition of fermented animal herbs. The provision of fermented animal herbal medicine will increase the speed of feed travel in the Kaligesing goat's rumen thereby increasing feed efficiency. Factors that affect feed efficiency include the speed of feed travel in the digestive tract, the physical form of the feed, and the nutritional composition of the ration.
4 Conclusion

The body weight of the Kaligesing goat in this study ranged from 16.33 ± 1.20 - 20.25 ± 2.14 kg showing an insignificant effect, so the sample can be used for research with degrees of error that was acceptable. The addition of 50 ml / day of fermented animal herbal medicine did not affect feed consumption. The addition of 50 ml / day of fermented animal herbal medicine increases weight gain, reduces feed conversion and increases feed efficiency of Kaligesing goats. The suggestion in this research was that it was necessary to add animal fermented herbal medicine as much as 50 ml / day / head to Etawa Kaligesing goat to increase its productivity.

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References


Development of Character-Integrated Hots-Based Learning Devices during the Pandemic Hot Themes and its Transfer of the Students

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Abstract. This study aims to 1) develop character-integrated HOTS-based learning tools, 2) determine the appropriateness of character-integrated HOTS-based learning tools, 3) determine students’ responses to character-integrated HOTS-based learning tools, and 4) determine the feasibility of learning using character-based learning tools. HOTS integrated characters. The research used development research by using the 4D model (Define, Design, Develope, and Disseminate). The research subjects are V grade elementary school students for the 2020/2021 academic year. The techniques of collecting data by observation, interviews, questionnaires, and documentation. The instruments of the research are validation sheets, student response questionnaires, and learning implementation. The data analysis technique used in this research are validity and reliability tests. The results of this research on the development of learning tools are: 1) the research produced learning tools in the form of eduscience magazines, edutoys media and authentic HOTS-based character integrated assessment instruments, 2) the overall validation results of the learning tools obtained a score of 3.60 in the very feasible category, 3) the results the student response analysis obtained a score of 94.28% in the very good category, and 4) the mean result of learning implementation was 95.30% with the very good category. So it can be concluded that the character-integrated HOTS-based learning device is suitable for use in learning in elementary schools.

Keywords: Character, elementary school, HOTS, learning tools

1 Introduction

The 2013 curriculum is one of the efforts to improve the education system in Indonesia. The purpose of designing the 2013 Curriculum is so that students are able to face future challenges, globalization, advances in information technology, and a knowledge-based economy. In the 21st century, the realm of education is expected to be able to produce human resources who have complete abilities in facing various challenges in life and have high-level thinking skills, namely critical thinking, creative thinking, problem solving and decision making. This can be achieved, of course, with the support of the learning tools used in the learning process. These learning devices are learning resources or teaching materials, teaching aids or learning media, and the assessment instruments used. However, with the current conditions, namely the covid-19 pandemic, students are required to continue to study at home and use simple learning tools.
The regulation regarding Learning from Home or BDR was conveyed by the Minister of Education and Culture of Indonesia, namely Nadiem Anwar Makarim in Circular Number 4 of 2020 concerning Implementation of Education Policies in the Emergency of the Spread of Corona Virus Disease (COVID-19) article 2[4]. So as to achieve challenges in the century 21 with the covid-19 pandemic conditions, the learning tools used by both educators and students must be HOTS-based and to develop the character of students learning tools also with character integration. Learning carried out during covid-19 educators should not give assignments that are too burdensome to students, because this can affect the health of students. The learning that was carried out during the Covid-19 pandemic was designed to be fun, interesting so as not to bore students and remain meaningful. So that learning tools are developed in the form of eduscience magazines, edutoys media, and authentic HOTS-based assessment instruments integrated with characters.

HOTS (Higher Order Thinking Skills) according to Saputra [5] aims to improve students' thinking skills at a higher level, especially those related to the ability to think critically in receiving various types of information, think creatively in solving a problem use existing knowledge and make decisions in complex situations. According to Crowl et.al [6] the characteristics of HOTS-based learning are learning that trains students to be able to argue well, identify and develop information, discuss with each other to overcome misconceptions, and also express information that has been obtained both in everyday life. as well as in teaching and learning activities in class. Character education is a conscious and planned effort to shape a person's character or personality based on the values that exist in society [1]. The character education taught by the teacher is the basis of virtuous behavior. The characters that need to be taught are creative, patriotism, religion, tolerance, respect for achievement, discipline, hard work, honesty, independence, fond of reading, democratic, curiosity, national spirit, friendly, peace-loving, responsibility, environmental and social care. These character values become provisions in facing all the challenges that exist [2].

Asfuriyah and Nuswowati [7] suggest that science magazines are information media with the aim of delivering actual news related to science or natural science concepts. Realia media is very useful, especially for students who do not have experience with certain objects as well as a visual aid in learning that functions to provide direct experience to students [9]. Edutoys media is one of the realia learning media that can be used as a toy in an automatic way by utilizing a technology that teachers can use to convey learning material and introduce students to one of the uses of technology. According to Widoyoko [8] assessment is an activity to interpret or interpret data from a measurement based on certain criteria or standards or rules. Understanding can also be interpreted as giving meaning or determination of the quality of the results of a measurement by comparing the measurement result data with certain criteria or standards. Piaget [3] argues that the cognitive development of elementary school-age children is in a concrete operational phase, namely students will present themselves in the form of logical and rational thinking abilities towards events and events that appear concretely.

2 Method

The type of research used in research is research and development using the 4D model (Define, Design, Develop, and Disseminate). The research subjects were grade V elementary school students for the 2020/2021 academic year. Data collection techniques by observation, interviews, questionnaires, and documentation. The instruments used in this study were
validation sheets, student response questionnaires, and learning implementation. The data analysis technique used in this research is validity and reliability tests.

3 Result and Discussion

The results obtained from this study are in the form of validation results to determine the feasibility of the developed learning tools, the results of the analysis of students' responses to the use of learning tools, and the results of the implementation of learning using the developed learning tools. The learning tools developed in this study are eduscience magazines, edutoys media, and authentic assessment instruments based on HOTS integrated characters during the Covid-19 pandemic with the hot theme and its transfer to grade V elementary schools. The products developed were each validated by two expert lecturers and an elementary school teacher. The result of the validation of learning device products presented in Table 1.

Table 1. Validation Results of Character Integrated HOTS-Based Learning Devices

<table>
<thead>
<tr>
<th>No.</th>
<th>Products Assessed</th>
<th>Score Lecturer</th>
<th>Teacher</th>
<th>Average score</th>
<th>Criteria</th>
<th>Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Eduscience Magazine</td>
<td>161,5</td>
<td>192</td>
<td>176,75</td>
<td>Very Worth it</td>
<td>91.38%</td>
</tr>
<tr>
<td>2.</td>
<td>Edutoys Media Authentic</td>
<td>72</td>
<td>82</td>
<td>77</td>
<td>Very Worth it</td>
<td>93.50%</td>
</tr>
<tr>
<td>3.</td>
<td>Assessment Instruments</td>
<td>83</td>
<td>84</td>
<td>83,5</td>
<td>Very Worth it</td>
<td>95.30%</td>
</tr>
<tr>
<td></td>
<td><strong>Total Score Actual</strong></td>
<td><strong>316,5</strong></td>
<td><strong>358</strong></td>
<td><strong>337,25</strong></td>
<td>Very Worth it</td>
<td><strong>93.39%</strong></td>
</tr>
</tbody>
</table>

Based on the data validation results in Table 1, the learning device product in the form of eduscience magazine obtained a percentage of 91.38% with a score of 3.69 in the very feasible category. Edutoys media products get a percentage of 93.50% with a score of 3.50 which is in the feasible category and the authentic assessment instrument gets a percentage of 95.30% with a score of 3.61 which is in the very feasible category. So that the mean percentage obtained is 93.39% with a score of 3.60 with a very suitable category to be used as a learning tool in the learning process in elementary schools. Meanwhile, the results of the analysis of students' responses to learning tools were carried out by giving questionnaires to students. The results of students' responses to the learning tools developed presented in Figure 1.
Student response data were obtained based on limited trials of fifth grade elementary school students. The limited trial with the subject of 12 students of SD Negeri 2 Tlogorejoguwo was used to determine the responses of students to the HOTS-based integrated character eduscience magazine, so that the percentage was 90.85% which was categorized as very good. The response of students to the edutoys media with a total of 10 students of SD Negeri Piji got a percentage of 92% which was in the very good category. While the response of students to the authentic assessment instrument with a total of 10 SD Negeri Wonotopo students got a 100% percentage in the very good category. So that the overall response of students to the learning tools obtained an average of 94.28% with the very good category.

The data on the results of the implementation of learning using HOTS-based learning tools integrated with characters during the Covid-19 pandemic with the hot theme and its transfer were obtained by each product for 3 meetings held at home and at school by complying with predetermined health protocols. Students are required to use a mask or faceshield, wash their hands or use a hand sanitizer, check the temperature and keep a distance. Learning is carried out for no more than one hour to prevent the spread of the corona virus. Two observers assessed the implementation of learning and then calculated it using the percentage agreement (PA) formula. The results of the implementation of learning using the HOTS-based integrated character eduscience magazine obtained a percentage of 97.41% in the very good category. The results of learning implementation using the HOTS-integrated character based edutoys media obtained a percentage of 98.49% in the very good category, and the authentic HOTS-based character integrated assessment instrument, the percentage of learning implementation is 90% with the very good category. So that the overall average percentage of the implementation of learning using HOTS-based learning tools integrated with the hot theme character and its displacement is 95.30% with the very good category. The result of the implementation of learning for HOTS-based learning tools with integrated characters during the Covid-19 pandemic with the hot theme and its displacement in grade V elementary schools presented in Figure 2.
Conclusions

Based on this development research, it can be concluded that this development research has produced learning tools in the form of eduscience magazines, edutoys media and authentic HOTS-based character assessment instruments integrated in the hot theme during the Covid-19 pandemic and the transfer of grade V elementary schools. The results of the validation of the feasibility of learning devices by two expert lecturers and elementary school teachers got an overall score of 3.60 with the very feasible category. Reliability test shows the percentage agreement of 93.39% so that the data obtained is reliable. The response of students to HOTS-based learning tools with integrated characters developed in limited trials was very good with a percentage of 94.28%. The implementation of learning using HOTS-based learning tools with integrated characters through the reliability test obtained a percentage of 95.30% in the very good category.

References


Dealing with Blasphemy Laws in Indonesia

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Abstract. The rights of religion and belief must be protected, which is a matter of concern for law enforcers in Indonesia. Law enforcers have attempted various case restrictions related to blasphemy, such as the provision of Article 156 (a) of the 1965 Blasphemy Law. Other legal provisions related to blasphemy regulation are regulated on Article 28 paragraph (2) of the Indonesian Law No. 11/ 2008 about Information and Electronic Transaction. Although in the Human Rights Act 1999 and Law No. 12 of 2005 concerning the ratification of the ICCPR, which has also guaranteed freedom of expression and restrictions on religious criticism, it has not been deemed appropriate to resolve various blasphemy issues that occur in Indonesia. In upholding human rights development in blasphemy, the National Commission on Human Rights has also made efforts by establishing a Standard of Norms and Regulations on Freedom of Religion and Belief. Therefore, this research paper will discuss applying the blasphemy law enforced by the Indonesian state with other countries. Besides, seeing the extent to which law enforcement is seen from the universal application of human rights enforced in Indonesia and whether or not the articles in the Blasphemy Law in Indonesia are properly resolved in resolving various blasphemy issues in Indonesia.

Keywords: Blasphemy law, Religion, Effectiveness of law enforcement

1 Introduction

Based on several media sources in Indonesia, it is found that many cases of blasphemy or blasphemy have been brought before the courts in Indonesia. In the past quartercentury, the Indonesian judiciary has sent many people to prison on the grounds of blasphemy laws [1]. Amnesty International recorded at least 106 on this basis between 2005 and 2014 [2]. The first case example is Tajul Muluk, a Shia leader from East Java, who served four years in prison for blasphemy under Article 156 (a) of the Criminal Code. Tajul Muluk founded a religious boarding school in Nangkrenang, Sampang, Madura Island, East Java, in 2004 and is a school principal. In 2006, the village's Sunni Muslim leaders and religious authorities started their Shi'a teachings as 'deviant.' There were many threats and acts of intimidation against him and other Shia followers in the village. On 29 December 2011, Tajul Muluk had to leave his village after about 500 people attacked him and his Shi'a followers. After that, Tajul Muluk and about 20 other villagers, including his family, were prevented from returning to the village by the attackers, who threatened to kill them if they returned. In the end, on January 1, 2012, a fatwa
was issued by the Sampang branch of the Indonesian Ulema Council (MUI) on what Tajul Muluk called heretical teachings. On March 16, the East Java regional police charged Tajul Muluk with blasphemy based on Article 156 (a) of the Criminal Code. On 12 July 2012, Tajul Muluk was sentenced to two years in prison for blasphemy by the Sampang District Court. In particular, the court found him guilty of saying the Koran used by Muslims was not the original text. Tajul Muluk denied this accusation. He appealed the decision to a higher court. However, his sentence was actually increased to four years on 10 September 2012 by the Surabaya High Court intended to have a "deterrent effect" and because Tajul Muluk had caused "disharmony among Muslims" [3].

Another example is Andreas Guntur, the local leader of Amanat Keagungan Ilahi (AKI), a religious sect in the province of Central Java. He was sentenced to four years in prison for blasphemy in March 2012. In spreading its teachings, the AKI organization is seen as using divine inspiration received by its founders, who reject conventional Islamic rituals. Since 1982 the Serang District Prosecutor's Office has issued a ban on all AKI activities in West Java province. Then, in 2009, the Indonesian Ulema Council (MUI) issued a fatwa against AKI for its “misinterpretation of Islam.” Until October 2011, Andreas Guntur held a meeting with his followers in the village of Girimulyo in Klaten Regency, Central Java, when the authorities attacked. They accused him and AKI of practicing deviant teachings, pointing to a series of posters in his house with religious words in Arabic that are not from the Koran. According to Andreas Guntur, the posters were for personal use and had been given to him by an AKI spiritual leader in Jakarta who used the words on a poster to cure his illness. Since then, he has been interested in these teachings and wants to help heal others through prayer. Andreas Guntur was later arrested and charged with Article 156 (a) Indonesian Criminal Code for blasphemy. He was sentenced to four years in prison in March 2012 by Klaten District Court based on Article 156 (a) of the Criminal Code. The Central Java High Court subsequently upheld this decision in April 2012 and the Supreme Court in August 2012 [4].

Alexander An (Aan), a 30-year-old Civil Servant (PNS) from Pulau Punjung District in West Sumatra province, was jailed for blasphemy in June 2012. Aan was accused of being an atheist for posting statements and pictures on his personal Facebook site and on the "atheist Facebook Group Minang", which some people interpret as insulting Islam and the Prophet Muhammad. According to his lawyer, his posts on Facebook have been printed and distributed by his colleagues. On January 18, 2012, an angry crowd, who had heard of his alleged Facebook post, gathered at his workplace and threatened to beat him. On January 20, 2012, he was accused of "spreading information aimed at inciting religious hatred or enmity” under Article 28 (2) of the Information and Electronic Transactions (ITE) Law. Then he was accused of committing religious blasphemy under Article 156 (a) of the Criminal Code and calling for other people to embrace atheism under Article 156 (b) of the Criminal Code [5].

In Bali, there was a Donald (Donald Ignatius Soeyanto Baria) video case in 2017 [6]. As an example of a case related to blasphemy that reached the Denpasar District Court. It is known that the defendant was legally and convincingly proven to have violated Article 28 paragraph 2 in conjunction with Article 45A of Law Number 11 of 2008 concerning Electronic Information and Transactions (ITE) on a video uploaded on his YouTube channel containing hate speech that smelled of SARA. In particular, Donald, who claimed to be an atheist, insulted Islam and the kyai, because he was dissatisfied with what the scholars said. His actions have caused unrest in the community and triggered the social conflict [7]. However, it can be said that tolerance among religious communities in Bali is quite high. Especially for the native Balinese Hindu-traditional people who are the majority. One of them can be seen by the formation of Puja Mandala, a complex containing houses of worship from 5 (five) religions recognized in
Indonesia. Besides, during the Nyepi celebration, for example, which is a Hindu religious holiday. Communities of other religions such as Islam, Christianity, with high tolerance, "celebrate" through blackout of lights and electricity in every house like the indigenous Hindus in Bali. There is no longer a problem with the consequences of the Nyepi celebration procedure, which can hinder the work and activities of non-Hindus.

Another monumental case is the case of Syiah and Ahmadiyah in East Java. The issuance of a Joint Decree of 3 (Three) Ministers regarding the Indonesian Ahmadiyah Community (JAI), which was issued on 9 June 2008, impacted the existence of the Ahmadiyya Jama’at [8]. In essence, the decree contains the termination, dissemination, interpretation, and activities that deviate from the principles of Islamic teachings, namely the dissemination of understanding that recognizes a prophet's existence with all his teachings after the Prophet Muhammad. The enactment of the Three Ministers Decree has many implications for the right to freedom of religion, ranging from limiting worship activities, not extending land use permits to destroying mosques, where Ahmadiyah congregations’ worship [9].

There is also a case related to the issue of religious blasphemy committed by the Indonesian Student Service Institute (LPMI) from outside Batu City, which occurred at the Asida Hotel at the end of 2006 and was highlighted by the national media and sparked anger at the time Muslim community in the end, the issue of religious blasphemy was brought to court, in the pre-trial trial a Christian leader and FKUB representative (Pdt. Yonathan Maluw) as an expert witness. The presence of Mr. Yonathan and Gus Sirad (Islamic leaders-FKUB) and the mayor at that time (late Imam Kabul) were simultaneously mediators to reduce the anger of the masses and maintain a conducive situation until the problem was resolved in court. Cases of blasphemy or blasphemy in Indonesia are challenges for law enforcement and human rights enforcement in Indonesia. The second amendment to the 1945 Constitution, which came into effect in 2000, guarantees freedom of expression, thought, conscience, and religion. These rights are also protected in Law no. 39/1999 on Human Rights. Furthermore, freedom of thought, conscience, and religion is recognized as underogable rights under Article 28I (1) of the 1945 Constitution and Article 4 of Law No. 39/1999.

Therefore, in the discussion of this article, we wish to explore the dynamics of the implementation of the blasphemy law in Indonesia amidst the country’s commitment to the international human rights regime, in particular freedom of expression, thought, conscience and religion, and whether human rights can be applied relatively following the specific conditions of each country. To support this research's purposes, a comparison of the blasphemy laws in Indonesia with several other Southeast Asian countries, such as Malaysia, the Philippines, and Thailand.

2 Methods

Data collection for this research was carried out through literature studies and field research in several provinces in Indonesia. In the field research, interviews and observations were
conducted with different government agencies, community organizations and religious figures. Field research was also carried out abroad, including in Malaysia, the Philippines and Thailand with the aim of getting a good comparison of policies governing blasphemy in neighboring countries.

3 Results and Discussion

3.1 Indonesian blasphemy law

Article 156a of the Indonesian Criminal Code (Indonesian Criminal Code or KUHP) stipulates that a person can be subject to imprisonment of up to five years if he "deliberately publicly expresses feelings or commits an act: a) which is basically hostile towards, abuses or tarnishes religion which is obeyed in Indonesia; or b) to prevent someone from embracing any religion based on the belief of God Almighty." This article states that without warning, a person who is proven to have committed religious blasphemy will be charged with a maximum penalty of 5 years in prison [12].

Apart from these provisions, the President of Indonesia also issued a decree in 1965, namely Law no. 1 / PNPS / 1965 concerning the Prevention of Misuse and/or Blasphemy of Religion, which prohibits people from deliberately communicating in public, or advocating or seeking support for, interpretations of religion practiced in Indonesia, or carrying out religious-based activities that resemble religious activities concerned, where these interpretations and activities deviate from the basic teachings of religion. It was also determined that the six recognized religions in Indonesia are Islam, Buddhism, Protestantism, Catholicism, Hinduism, and Confucianism [13].

According to Andi Hamzah, in the provisions of the elements of Law no. 1 PNPS 1965, seen from the intention of the legislators, this should be an alternative, not a cumulative. This means that only one of them is proven to be convicted of the maker [14]. In this case, what is protected here is freedom of religion and religion's practice without interference from others. Some scholar figures argue that Article 156a of the Criminal Code in letters a and b is cumulative regarding this issue. If one of the letters is not fulfilled, Article 156a cannot be imposed. This article can be seen, that the provision of sanctions in Indonesian legislation for acts of blasphemy of religion Law no. 1 PNPS 1965 with 2 stages, namely giving advice, stern warning (personal) or disbanding (organization/sect), and if he still commits the act then a maximum of 5 years imprisonment [15].

The first objective element of a criminal act regulated in Article 156a of the Criminal Code is the public. Using words in public means that the feelings issued by the perpetrator or the actions carried out by the perpetrator must always occur in public places. Still, it is sufficient if the public can hear the perpetrator's feelings, or the public can see the actions committed by the perpetrator. The perpetrator can issue hostile feelings, abuse, or defamation of a religion adhered to in Indonesia in a public place, which can be visited by anyone, which can be heard by the public, committed by the perpetrator, either verbally or by action [16]. Other objective elements of the criminal acts regulated in Article 156a letter a of the Criminal Code are hostile, abuse, or defamation of a religion adhered to in Indonesia. Regarding which feelings or actions can be viewed as hostile feelings or actions, abuse or defamation of a religion practiced in Indonesia, Law no. 1 PNPS of 1965 did not provide a specific explanation. It seemed like leaving it to the judge in giving the judge's interpretation freely regarding which feelings or actions could be
seen as hostile, abuse, or defamation of religion in Indonesia [17]. Article 28 paragraph (2) of Indonesian Law No. 11/2008 and Information and Electronic Transactions states the following (under the section 'Prohibited Actions'): Anyone who knowingly and without authority disseminates information that aims to cause hatred or conflict with individuals and/or certain groups of people based on ethnic groups, religions, race, and between groups (usually referred to in Indonesian as SARA). The criminal penalty for the offense is stated in article 45 (2) of the action as follows: (2) Any person who fulfills the elements as referred to in Article 28 paragraph (1) or paragraph (2) shall be subject to imprisonment, not exceeding 6 (six) years and/or a fine not exceeding IDR 1,000,000,000 (one billion rupiahs).

3.2 Comparative studies with three southeast asian countries

3.2.1 Thailand [18]

The issue of blasphemy law is not specifically regulated in Thai law. Basically, the Thai constitution protects the freedom of its people to practice religions and beliefs they believe. However, there is no specific law regulating the prohibition of blasphemy as in Indonesia. In code 206-208, the Thai Criminal Code regulates sanctions against blasphemy (especially all religions recognized by the government). The punishment can be sentenced to 1-7 years in prison or a fine ranging from 2000 baht-14 thousand baht.

Buddhism, which is followed by the majority of Thai people, is protected by law from all forms of religious blasphemy. This cannot be separated from the religion of “Buddha” as one of the state’s symbols besides the Monarchy and the Nation/state. It can be seen from the Sangha Act’s existence, which specifically prohibits the defamation of Buddhism. Against the law violators, will be subject to a maximum prison term of 1 year or a maximum fine of 20 thousand baht.

There are actually several conflicts in the case of blasphemy. Still, most of them are not purely blasphemy conflicts or do not go to legal channels as is the case that is widely discussed in newspapers, regarding the abuse of Buddhism by a Thai citizen who painted a Buddha statue in colors for artistic reasons (although in fact it can be categorized as an act of blasphemy which can be subject to articles in the related Criminal Code, this case did not go to court). Or the case in Chiang Mai related to the construction of mosques that were opposed by the people around the Laos and Cambodia borders (who are predominantly Buddhist) because there were not many mosque worshipers as required, it was known that the reason for the ban was due to the interests of certain individuals/parties who felt they would be harmed with the construction of mosques in the area.

Currently, the conflict case in Southern Thailand (originating from the population’s anger over the disappearance of their group leader) is still negotiating between the government and groups with different ideologies since 2013. On the other hand, the fact is that the government continues to arrest people, especially in Southern Thailand, which is indicated as ethnonationalism (trying to liberate Southern Thailand from the monarchy/kingdom of Thailand). In essence, the strength of the monarchy/kingdom in Thailand affects the existing cases. It is rare for someone to entrap someone based on blasphemy laws, where the government often immediately acts first to try to negotiate with the perpetrators so that they do not get into legal channels. Even to maintain its strength, the government seems to be trying to embrace all religions. Among them, the king and his family must study all religions (apart from Buddhism as the religion they profess). Then for the construction of a religious house itself, there are government subsidies for all religions.
3.2.2 Philippines [19]

When it comes to blasphemy, the Philippines is no ordinary country in this respect. This is because cases of blasphemy in the Philippines are still small compared to other countries. This is due to the cultural spectrum in this country that has mutual respect between religious communities. For Catholics, who make up the majority in the Philippines, Muslims and Christians are brothers. They also respect each other’s identities and do not interfere with each other. The government also supports the worship activities of followers of religions in the Philippines, such as building houses of worship, not prohibiting religious activities, and supporting every activity carried out by each religion in the Philippines.

Based on information from a community at the Quiapo Islamic Center, Manila, the government has never discriminated against Muslims. However, in considering socio-political and religious issues, the government does not pay attention to their voices, such as in the case of the bombing in Marawi. At that time, the Philippine Muslims asked not to carry out bombings in areas suspected of being ISIS territory. They asked to send military forces to repel the terrorist herd. In fact, the government continued to carry out bombings and heeded their input. As a result, many of their homes were destroyed by the bombings. However, after the bombing, the government-assisted in rebuilding their homes, but the funds provided were not sufficient to build houses as before.

Although few cases have occurred, there have been cases in this country by an activist named Carlos Celdran. Unfortunately, he died while still in legal proceedings due to health problems. Celdran was subjected to Article 133 of the Revised Penal Code of the Philippines for his shouting in front of Catholics who were performing mass on September 30, 2010, in Intramuros, one of the most historical places in the Philippines, by saying, Damaso, the name of a greedy monk in the novel written by Jose Rizal in 1887. There are many allegations that the blasphemy cases that occurred were not purely to hurt people of other religions but also for political reasons. As happened to Muslims in the southern Philippines.

In its application, the Philippines’ Penal Code leaves it to Palos, the Criminal Justice System, which is in the country. The Criminal Justice System is an institution responsible for preventing crime, enforcing the rules, and executing those who break the law. The Revised Penal Code in the Philippines came into effect in January 1932. The article containing the prohibition of defaming other religions is still general and has not specifically regulated acts of blasphemy against other religions. Therefore, the Philippines’ blasphemy law should be implemented to protect every religious community and create a sense of mutual respect. Today and in the future, the problem is increasingly challenging.

Another reason behind the absence of regulations regarding this matter is the inconsistency with international conventions regulating a person’s civil and political rights. Even though the Philippines has ratified the ICCPR (International Covenant on Civil and Political Rights), it aims to protect the state and the morals of Filipino citizens. That is why the Philippines does not have a law governing the prohibition of blasphemy against other religions. However, in the case of crimes against religion, it is regulated in the Revised Penal Code of the Philippines Book Two (Crimes Against the Fundamental Laws of the State), Chapter One, Section 4 Crimes Against Religious Worship) verses 132 and 133. of the two verses as follows:

− Art. 132. Interruption of religious worship.

The prison correctional penalty in its minimum period shall be imposed upon any public officer or employee who shall prevent or disturb any religion’s ceremonies or manifestations.
If the crime has been committed with violence or threats, the penalty shall be prison correctional in its medium and maximum periods.

- **Art. 133. Offending religious feelings.**

  The penalty of arrest major in its maximum period to prison correctional in its minimum period shall be imposed upon anyone who, in a place devoted to religious worship or during the celebration of any religious ceremony, shall perform acts notoriously offensive to the feelings of the faithful.

However, the ban does not apply to the President of the Philippines. The president has the right to immunity, which gives him freedom of opinion even if it offends other religions. When Duterte said, "Who is this stupid God? This insolent, utter fool "in a speech held openly and broadcast on Philippine national television in June 2018, in his blatant statement to Catholic religious leaders in the Philippines, Catholics do not need to go to the Church to give money to idiots (read: priests and priests) in the Church in November 2018. Also, he mentioned that Catholic religious leaders are useless and deserving of being killed. Many things were raised by Duterte that cornered one of its religions and leaders in the Philippines. Still, in his capacity as President, the supreme leader of Filipino citizens, he was released from the penalties in Article 132 and Article 133 of the Revised Penal Code.

3.2.3 Malaysia [20]

The law against committing blasphemy in Malaysia is divided into two faults. The first is the mistake of insulting or being looked down upon by Islam. The second is to study the holy verses of the Koran and Hadith. The error of insulting religion in the Malaysian communion territory is regulated in Section 7 of the 1997 Fellowship Area Sharia Clearance Deed. This can be seen more comprehensively in Deed 557 Section 7 as follows:

**Akta 559 Deed of Error Jenayah Sharia (Communion Areas) 1997 Part III - Errors Related to the Sanctity of Islam and its Institutions**

- **Seksyen 7. Insulting, or causing to be despised, etc. Islam.**

  Everywhere, people verbally or in writing or with a visible description or in any other way:
  a. insulting Islam or causing Islam to be despised;
  b. slaughtering, proclaiming, or defiling practices or ceremonies related to Islam; or
  c. hinder or cause contempt in any law currently in power in the Union Territory relating to Islam.

The above rules generally govern anyone who insults or defames other people's religions and beliefs. This rule is the same as the law regarding blasphemy in Indonesia as stipulated in Article 156a of the Criminal Code. The difference is if this rule applies to all adherents of the religion or all citizens in Indonesia who commit blasphemy against other religions, both oral and written. Meanwhile, in Malaysia, the above regulations only apply to Muslims. Besides, in Malaysia, there is no specifically drafted law regulating blasphemy. In the Kanun Keseksaan itself, there are only rules in prohibitions against causing riots or disturbing other religions.

The sanctions gave only apply to Malaysian citizens who are Muslim. The penalty is a fine of not more than 5000 RM and imprisonment of not more than 3 years by the Sharia Court. If non-Muslims such as Christians, Confucians, or Buddhist’s insult Islam on the Internet or make deliberate words to hurt someone's religious feelings, they will be subject to sanctions as stipulated in the Deed of Communication and Multimedia and Kanun Keseksaan.

Also, some problems have not been regulated in the Law in Malaysia, namely political campaigns' problem to gain public sympathy. For example, looking down on other parties to draw sympathy utilizing hate-speech, hoaxes, hoax news, and slandering other parties does not
exist. Apart from that regarding the threat of freedom of speech, the Kingdom does not yet know the extent to which it limits freedom of expression to regulate what is allowed and what is not. For example, in the chapter on religion, there are no limits on what needs to be discussed and what should not be so that this is the right time, and it is necessary to have rules to limit this behavior. With increasingly complex problems and supported by increasingly advanced technological developments, Malaysia has started to design regulations by separating errors related to religion to make specific rules. The rule will also be expanded by adding to the Cyber Crime case by including the existing rules in Jinayah regarding cybercrimes.

3.3 Discussion

3.3.1 The polemic of blasphemy law in Indonesia

According to YLBHI records, there were 38 reports of cases of religious blasphemy throughout 2020. Interestingly, 19 cases occurred during the pandemic. There are several cases of freedom of religion and belief against minorities. These cases are: (1) On March 16, 2020, a group of masses calling themselves the Alliance of Fort Aqidah (ABA) pressured the Bogor Regent to ban Ahmadiyah in the Regency; (2) On April 6, 2020, the Taskmalaya Regency Government through Bakorpakem attempted to seal the Al-Aqsa Mosque belonging to the Ahmadiyah congregation in Badakpaeh Village, Cipakat, Singaparna District; (3) In July 2020, there was a seal on the prospective family funeral or pasarean of the Sunda Wiwitan Karuhun Urang (AKUR) Adat at Curug Goong, Kuningan by Satpol PP; (4) Using COVID-19 as an excuse to increasingly hate, vilify, or carry out bad schemes against ethnic Chinese, such as unhygienic and disease carriers; (5) Some leaflets or flyers addressed to Shia groups. For example, they are spread on several social media memes and posters stating that Shia is more dangerous than COVID-19; (6) On August 8, 2020, a group of paramilitary troops broke up a prayer ceremony in Midodaren, Solo, causing injuries to 3 people. The event is considered a Shia tradition [21].

Many cases of blasphemy stem from the belief that they do it as a policy. For example, what happened to FPI members who attacked mosques belonging to Ahmadiyah followers? They said: "We are not giving up, for the truth we are ready, ordinary imprisonment, being thrown away means sightseeing, and being killed then martyrdom." This is embedded in their belief in attacking different minorities. Forcing them to the right path to save them from hell. Make this a sacred mission at the expense of other religious beliefs to the point of losing the lives of others. Third, the euphoria of harmony. For example, the word harmony is more widely used so that minority groups follow what the majority group does to hear what the majority group decides [22].

For example, many cases that occurred in a group of Shia in Bogor were prohibited from commemorating the Ashura celebration to avoid chaos. Besides that, it also prohibits or limits the activities of minorities, so it is believed to protect the many victims. By expelling the Shia from Sampang, it can build a society of harmony. The logic of harmony is identical to the domination of certain groups to suppress other groups. Fourth, the conservative mental construct is to silence and approve of intolerant and discriminatory attitudes that occur in society and think that various groups of people who are attacked deserve to be treated like that because what the minority groups do causes unrest towards the majority group. Lastly, delimited pluralism, which is an understanding that gives rise to clarity in performing religious services. For example, stated in Law No. 1/ PNPS/ 1965 on three categories of religion [23]:

a. Groups of six religions "embraced by the population of Indonesia."
b. Religious groups referred to in PNPS / 1965 as "allowed to exist," such as Baha’i, Sikhs, and Jews.

c. Adherents of the belief are quite numerous and scattered in various places in Indonesia. Indonesia is considered not to have a strong legal basis, which causes minority groups to have no clear status in contentious belonging. One of the crucial things in our regulation lies in the 1945 Constitution Article 28J paragraph (2), which reads, "In exercising his rights and freedoms, every person is obliged to submit to the restrictions set by law to guarantee recognition and respect for the rights of freedom of people. Other and to fulfill just demands under moral considerations, religious values, security and public order in a democratic society". This verse is used arbitrarily for certain interests by the government in limiting religious freedom to certain groups [24].

Based on the results of a national seminar conference put forward by the Indonesian Legal Aid Foundation (YLBHI), it was stated that since January-May 2020, in Indonesia, there were 38 cases related to blasphemy, and this has led to a new trend, namely many cases have occurred in vulnerable areas, namely South Sulawesi, East Java, and North Maluku [25].

As is well known, in the legal text in Indonesia, there is no visible what exactly is meant by blasphemy. The 3 articles used are the Criminal Code, the ITE Law, the Mass Organization Law (in the word blasphemy, it is different from other blasphemy rules). Based on the analysis, the ITE Law makes the age of the charged suspects younger (mostly under 15 years). For example, this occurred in underage children who were suspected of playing the song Aisyah, playing TikTok, and so on. The police's keyword to bring cases to the realm of law is viral, indicated by causing public unrest, thus threatening public order. In fact, the reasons for disturbing order are not stated in the Article in the existing regulations.

Besides that, in Indonesia, there are many cases where there is no proof. As if forced to be convicted, such as the absence of evidence becomes evidence used in the toa mosque case in the "Meliana" case. There is also evidence that is not valid or evidence that was only made after the incident occurred, such as in the Fatwa case of the Tajul Mulk case in Sampang (only available after being reported by the public).

In Indonesia, blasphemy is considered the same as religious blasphemy (although they are two different things and violate criminal theory). In fact, in some cases, the word "blasphemy" is more popular than blasphemy. Also, there has been an expansion in the use of articles for acts deemed blasphemy due to the absence of a clear definition, causing law enforcers to be influenced by mass or public pressure for cases described as "viral." Public order-disorder is still a reason to arrest or process the case. However, there seems to be progress towards better law enforcement, both police and judges, although the numbers are minimal and more individual in nature. Finally, according to YLBHI, if the state intends to protect people, including religious communities, from acts of hostility, hatred based on ethnicity, religion, race, and other attributes, then the articles of hate crime, hate broadcasts, and discrimination are more effective [26].

Besides, Komnas HAM also stated that the problems of blasphemy offenses in Indonesia include: (1) The elements of the article tend to be ambiguous and have multiple interpretations (it can be imposed on anyone); (2) there is an element of discrimination, especially for minorities; (3) it has an impact on socio政itics (for example, during an election, it is certain that cases are more prone to arise). Komnas HAM stated that it is more concerned with Freedom of Belief and Religion and has made Standards for Norms and Regulations on Freedom of Religion and Belief, which are rules and measurements in assessing efforts to promote, fulfill, and protect the right to freedom of religion and belief in Indonesia which used in drafting and implementing rules.
Also, Komnas HAM has provided recommendations to the DPR and the Government in the discussion of the Criminal Code Bill in September 2019: "... it is necessary to look again at the purpose of using the phrase expressing feelings and defamation as an alternative and equivalent of" hostility "needs to be reconsidered." In the Draft Criminal Code [27]:

a. Regulations regarding religion overlap with the ITE Law. Encourage the provisions of articles related to blasphemy to emphasize a clearer formula than blasphemy, namely the definition of the phrase hostility.

b. Emphasizing religious blasphemy, in this case, hostility, to be included in a material offense means that it must first be proven its real consequences to avoid criminalization and arbitrary interpretation of law enforcement officials.

Thus, Komnas HAM believes that the entire blasphemy regulation must be reviewed because it disturbs individual rights and has social impacts such as riots and division [28].

3.3.2. Freedom of religion belief [29]

Freedom of Religion Belief can be found in Article 18 of the Covenant on Civil and Political Rights. In fact, this right is the right of everyone "to freedom of thought (thought), conscience, and religion." This right consists of freedom to determine a religion or belief of his own choice and freedom to practice his religion and belief, either individually or collectively, either in public or closed in activities: worship, obedience, practice, and teaching. Article 18 paragraph (2) of the Covenant regulates the prohibition of coercion, namely "no one can be forced so that his freedom to adhere to or determine his religion or belief according to his choice" is disturbed. Meanwhile, the provisions of Article 18 paragraph (3) regulate permissible or legal restrictions. The requirements are:

a. Only for freedom to practice religion or belief;

b. Can only be limited by provisions under the law;

c. It is necessary to protect the safety, order, health, or morals of society or others' fundamental rights and freedoms.

The final provision in Article 18 of the Covenant on Civil and Political Rights is the relationship between parents and the State: "States Parties to the present Covenant undertake to respect the liberty of parents and, where recognized, legal guardians, to ensure religious and moral education for their children according to their own beliefs". This provision is similar to Article 14 paragraph (2) of the Convention on the Rights of the Child, namely "States parties must respect the rights and obligations of parents, and where applicable, legal guardians to instruct the child in exercising his rights in an appropriate manner. with the child's developing abilities ".

The provisions above do not necessarily cover the relationship between parents and children regarding Freedom of Religion or Belief. First, the principle of non-cooperation, as stated in article 18 paragraph (2) of the ICCPR, applies. Then Article 14 paragraph (1) of the Convention on the Rights of the Child applies, namely, "States parties must respect the right of the child to freedom of thought, conscience and religion providing that no one, including parents to children, violate this obligation." Also, there is Article 1 parag of the Convention on the Rights of the Child, which regulates "States Parties must take all appropriate steps to ensure that children are protected from all forms of discrimination or punishment based on the status, activities, opinions expressed or beliefs of the child's parents, the child's legal guardian or family member of the child ". Also, Article 14 paragraph (1) of the Convention on the Rights of the Child, namely, "States Parties must respect the right of the child to freedom of thought, conscience, and religion. In principle, as regulated in Article 3 paragraph (1) of the Convention
on the Rights of the Child, "In all actions concerning children, carried out by state or private social welfare institutions, legal courts, administrative authorities or legislative bodies, the best interests of the child must be the main consideration."

3.3.3 Slice of freedom of religion, beliefs with other rights [30]

Slicing or intersectionality is a new approach used to see the relationship between a right and another. For example, in the mandatory regulation of religious clothing, apart from violating the right to KBB, especially obedience, it can also be seen from the right to expression and women's rights.

An important provision in this section is hate broadcast as regulated in Article 20 (2) of the KIHSP. Hate broadcasts are "any action that promotes hatred based on nationality, race or religion which is an incitement to discrimination, hostility or violence." It is the obligation of the state party to prohibit it by law. Another slice is regarding minority groups as regulated in Article 27 KIHSP. It completely reads, "in countries that have minority groups based on ethnicity, religion or language, people belonging to that minority group must not be denied their right in society, together with other members of their group, to enjoy their own culture, to practice and practice their own religion, or use their own language."[31]

3.3.4 Blasphemy vs. freedom of expression

On the one hand, the implementation of the blasphemy law is to protect religions in Indonesia. However, on the other hand, Indonesia already has legal and human rights instruments that regulate and protect freedom of expression, conscience, religion, and worship according to its religion and belief. This fact gives birth to a certain complexity. On the one hand, freedom of expression and belief is protected by the constitution. On the other hand, these freedom practices often violate certain religious signs, so that they are called blasphemy. Article 28E and Article 29 of the 1945 Constitution guarantee every person or population's freedom or independence to embrace a religion and worship according to that religion. Article 28 E paragraph (1) states, "Everyone is free to embrace a religion and worship according to his religion, ... etc.", This is also strengthened through article 29 paragraph (2) "The state guarantees the freedom of every citizen to embrace his religion and to worship according to religion, and that belief, ".

Various international instruments have also been ratified by the Indonesian government relating to freedom of expression and freedom of belief. Article 18 of the Covenant on Civil and Political Rights of the United Nations (International Covenant on Civil and Political Rights, ratified by Law 13 of 2005), paragraph 1 reads: "Everyone has the right to freedom of thought, belief, and religion. This right includes freedom to determine religion or belief of his own choice, and freedom, either individually or collectively with others, either in public or in private places, to practice his religion and belief in worship, obedience, practice, and teaching".

3.4 Blasphemy law and human rights challenges in Indonesia

Indonesia is the fourth most populous country in the world, which is also considered the country with the largest Muslim population globally, a country with thousands of languages, ethnicities, and cultures has complex and special conditions that make human rights discourse possible. Varies from the source.
The Indonesian government enacted the Human Rights Law in 1999 and the Human Rights Court Law in 2000. This has also amended the Indonesian constitution and included ten articles/articles relating to human rights in 2000. Furthermore, in 2005, Indonesia finally ratified two international treaties considered the International Human Rights Law, namely the International Covenant on Civil and Political Rights and the International Covenant on Economic, Social and Cultural Rights of 1966.

Human rights articles enshrined in the amended Indonesian constitution and in Indonesian Law no. 39 are essentially the same as those enshrined in the Universal Declaration of Human Rights of 1948, the International Covenant on Civil and Political Rights 1966, and the International Covenant on Economic, Social and Cultural Rights 1966. However, things are very different when they come to implementation. These rights.

The Indonesian government and society sometimes have different ways of implementing human rights. The long term of colonialization and imperialism, more than forty years under dictatorship, poverty, and large numbers of jobs have made discourse - not to mention implementation - of human rights less attractive than other things that are done. Some people say that we accept human rights as long as they conform to our religious and social values. Others argue that human rights only come from western culture. Among human rights areas that have received many controversies are freedom of religion/conscience, freedom of marriage, sexual orientation/gender identity, and abortion.

Therefore, the Blasphemy Law in Indonesia has a legal basis and is also justified by the Indonesian socio-cultural-political atmosphere. Following are some of the arguments echoed by prominent Indonesian Muslim scholars (From Muhammadiyah, Nahdlatul Ulama, and the Indonesian Ulama Council) in response to the juridical review of the blasphemy law no. 1/1965 petitioned by NGOs and minority groups: The Blasphemy Law is seen as important for the community. Maintenance of social order and peace. It is necessary to prevent religious conflict and anarchy. The Blasphemy Law is an allowable and necessary limit on the right to freedom of religion in public order interests, as permitted by the constitution. Freedom of religion is not absolute freedom without limits. The conception of human rights in Islam compared to that of the "West" is different. Western concepts of human rights are often indefinite and narrowly focused on individual rights. This contrasts with human rights in Islam, and therefore in Muslim-majority Indonesia, he argues, places equal emphasis on individual responsibility in society.

Lessons learned from North Sulawesi include that blasphemy law is still needed to regulate religious harmony among people living in a multicultural society. However, an informal approach to resolving religious clashes through dialogue among informal religious leaders, as demonstrated by BKSUA and FKUB in North Sulawesi, is much more important for maintaining religious harmony.

From the perspective of the effectiveness of applying the articles of blasphemy, the above case is considered inappropriate if it is categorized as a case of actual religious deviation or blasphemy. This can be seen from the facts that occur in the local community when the chanting of the call to prayer echoes to the procedures for praying in Javanese or terms of the difference in the number of prayer congregations, so far there has never been a problem or debate regarding that issue. Regarding the blasphemy law itself, there is still a need for regulation regarding this matter. However, what needs to be underlined is how the legal provisions' direction operates in regulation because basically, the present rules aim to maintain public order in society. With the PNPS Law's existence, it needs to be narrowed even further so that people do not criticize each other's beliefs. The importance of this PNPS Law is enforced to maintain harmony and public order in society because ideologically and juridically, it does not contradict Pancasila's values.
Various polemics arise in people's thinking when discussing the blasphemy law's effectiveness in creating public order. This can be seen from the legal structure, law enforcement agencies, legal culture, and other legal factors. So far, the PNPS Law's effectiveness has been quite effective, but certain restrictions are needed. If we look at Article 156 of the Criminal Code or usually in the prosecutor's indictment, it is alternated with Article 33 of the ITE Law regarding unpleasant acts. Of course, the Judge has determined Article 156.

A of the Criminal Code because it explicitly regulates religious blasphemy. For example, the blasphemy decision in the Klaten area stated that the prosecutor charged Article 45 paragraph (2) of the ITE Law; however, the judge ruled Article 156(a) of the Criminal Code. If viewed juridically, the existence of this PNPS Law should be lex specialis compared to the Criminal Code. However, usually, judges actually have different considerations, namely because Article 156 of the Criminal Code is related to religious blasphemy, so that it ignores the sound of other articles. At the same time, in the regulation of the ITE Law, it is more related to SARA, which is broader in definition than Article 156(a) of the Criminal Code, so generally, the judges always stipulate to Article 156(a) of the Criminal Code regarding blasphemy of religion because it is easier to prove the elements of the article in court.

Not only that, the presence of Article 156 of the Criminal Code is still considered unfair and does not rule out injuring the community. In general, all judges are the same in defining public order. In the case of translation of public order, judges usually draw from the same definitional term in the absence of consensus. According to the doctrine, the definition of "public place" is a place that is accessible to the public. Includes access to social media, which is included in the category of public places and can be subject to the ITE Law. Still, in reality, only Article 156 of the Criminal Code is imposed.

In essence, law enforcers in solving the problem of blasphemy within the judiciary are using articles that are easy to apply, such as Article 156 of the Criminal Code and from the point of view of the ease of proving the elements. In general, the evidence brought by the prosecutor is in the form of an MUI fatwa (proof of letter). In this case, some things should be considered by judges in determining a case, including blasphemy, namely, in addition to seeing the facts of the MUI Fatwa (deviant or not), the judge will also see in terms of the impact of his actions disturbing public order or not and consider the element of "intentionally" in the context of deliberate intent or willens en wettens, namely the will and knowledge of the doer. Then, consider also in terms of whether the perpetrator gave an apology or not, considering from the history of the perpetrator how long it had been for the perpetrator to commit an act that led to blasphemy and the intensity of the time for how long it took to commit an act that blasphemed religion. Therefore, the government's role is very much needed to guide people with various religions and beliefs to maintain harmony and create order among religious communities.

4 Conclusion

Many people still consider the enforcement of the blasphemy law in Indonesia to be incompatible with human rights. However, the enforcement of this blasphemy law has a legal basis and justification per Indonesia's social, cultural, and political context.

Secondary data research and field research conducted in several regions of Indonesia, including East Java, West Sumatra, North Sulawesi, and Bali, as well as a comparative study with three countries in Southeast Asia, respectively the Philippines, Malaysia, and Thailand, show the results that legal regulations related to blasphemy religions in Indonesia (especially in
the Criminal Code) have not accommodated all cases in fact. Meanwhile, in the four foreign countries mentioned above, regulations on blasphemy laws still exist, but their implementation varies and does not reflect legal certainty. In the Indonesian context, certainty is needed regarding the regulation of the blasphemy law and the explanation of the related articles to achieve public order and legal certainty in Indonesia's pluralistic society.

In addition, rights regarding minorities become a problem because in every religious conflict, the approach is always harmonized where minorities are often sacrificed, and their rights to have a religion, belief, and worship are not fulfilled. This tendency must be ended where the belief is an individual right; it does not recognize the majority and the minority. Law enforcers must receive reinforcement, lightening up, and encouragement to enforce the law. They do not get pressure from the minority and the majority. This is the main reason for the fulfillment of political rights and ECOSOC. If we make efforts to evaluate it, it is hoped that there will be outputs or outputs to be processed in policy making so that there are no restrictions.

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References

[1] Article in Tempo Magazine (https://en.tempo.co/read/news/2017/05/10/055874088/Major-BlasphemyCases-in-Indonesia) mentions the largest cases of religious blasphemy in Indonesia, namely as follows: Arswendo Atmowiloto, Chief Editor of the Tabloid "Monitor", which put the Prophet Muhammad in 11th position and Suharto in 1st place in a headline entitled "50 Figures that Readers Admire" who are deemed to have insulted Islam, was sentenced to 5 years in prison by the Central Jakarta District Court (April 1991). Lia Eden, leader of a sect called the "Holy See of the Kingdom of God" (God's Kingdom of Eden). Indictment: 2 years 6 months in prison. Verdict: 2 years 6 months imprisonment by the Central Jakarta District Court (June 2009). Tajul Mukul alias Haji Ali Murtadho, Shia leader in Sampang, East Java. Indictment: 4 years in prison. Verdict: 2 years imprisonment at the Sampang District Court (July 2012). Antonius Richmond Bawengan, distributor of books and leaflets that blaspheme religion. Indictment: 5 years in prison. Verdict: 5 years imprisonment by the Temanggung District Court (February 2011). Rusgiani, a housewife, insulted the offerings in Hindu religious ceremonies with dirty words. Indictment: 2 years in prison. Verdict: 14 months imprisonment by the Denpasar District Court (October 2013). 6 (six) Administrators of the Fajar Nusantara Movement (Gafatar). Indictment: 4 years. Verdict: 3-4 years imprisonment by Banda Aceh District Court (June 2015). Abdussalam alias Ahmad Musadeq, Gafatar Leader, indictment: 12 years imprisonment. Verdict: 5 years imprisonment by the East Jakarta District Court (March 2017).


[3] Ibid.


[5] Siti Aminah, et.al., Ibid.


[13] Ibid.


[16] Ibid., pp. 59-60.

[17] Ibid.


[19] Based on field research in conducted by the Research Team on November 2020 to Manila, Philippines.


[22] Ibid.

[23] Ibid.

[24] Ibid.


[26] Ibid.

[27] Based on Online Conference Presentation by Komnas HAM with the theme "Blasphemy Law: Protection or Criminalization?", accessed on 27 August 2020.

[28] Ibid.

[29] Based on Online Short Course by Paritas Institute with the theme "Freedom of Religion and Belief", accessed on 25 August 2020.

[30] Ibid.

The Use of the Way Modeling Method Assisted by Temple Board Media in Learning Indonesian Language

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Abstract. This study was motivated by the low results of learning Indonesian, which only reached 53.75, where 3 (12.50 %) got complete scores. For this reason, it is necessary to improve learning to increase motivation, interest, and learning outcomes of class V Indonesian language participants at Public Elementary School Kedunghalang 3, Bogor City. The results of the first study obtained an average value of 72.71. There were ten people (45.45%) completed. In the second study, the acquisition of the average value increased to 91.14. There were 21 people or 95.45% complete and 1 (4.55%) incomplete. The results of teacher observations to see the motivation and interest in learning in the first lesson 11 people (45.83%) increased to 22 people (91.67 %) who are motivated and interested in learning in the second lesson. Learning outcomes using the modeling the way learning method and sticky board media can improve learning activities, learning outcomes, generate interest, motivation, and passion for learning, help students to learn independently, and be responsible.

Keywords: Modeling the way, Sticky board media, Indonesian

1 Introduction

Indonesian is one of the scientific fields taught from elementary to tertiary level. General competence that students in elementary schools must have in learning Indonesian can communicate in writing and orally correctly and adequately [1]. Meanwhile, the specific objective is for students to communicate well, including speaking, writing, reading, listening skills, and students can work and imagine doing various literary works well [2]. Furthermore, Mulyati argued that there are two categories in understanding language skills, namely productive and receptive aspects. In the productive aspect, namely the expenditure or production of various forms of written and spoken language, such as learning to write and speak. The receptive aspect is the absorption or acceptance of a student in learning activities such as reading and listening [3].

The results of Indonesian language learning conducted on 5th-grade students of Kedunghalang 3 Elementary School, Bogor City, from the predetermined minimum completeness criteria, it was only able to reach an average value of 53.75, which is still far from the predetermined value. Likewise, the observation results of students' motivation in answering questions showed that only 20.83% or 5 of the 24 students could answer questions from the
teacher. These results indicate problems in learning activities in terms of motivation, interest, and student learning outcomes. If sulking on the model, methods and media users needs to be reviewed so that student learning becomes better and the results can reach and even exceed the set value.

The low results of Indonesian following studies or research from Nikmah from Muria Kudus University related to the same problem, namely the skill to write an invitation letter in Class V SD Tuwang 1 Demak, indicates a problem related to the activeness of students and writing skills in learning which affects the lack of understanding material [4]. Likewise, research conducted by Isthifa and Fitriani revealed that currently, the writing technique skills and writing skills of students were not satisfactory and had not reached the maximum target [5].

From this research, there is the same problem, where they do not convey about the interest and motivation of students in learning and only use the Modeling the Way learning model, not using temple board media. For this reason, learning improvements are made using the Modeling the Way model with a combination of sticky board media. This method's use is expected that: 1) can generate interest, motivation, and enthusiasm for student learning. 2) Can guarantee the development of students during the teaching and learning process. 3) develop students' creativity, expression, personality, learning motivation, and 4) students to become independent in learning and take responsibility. Likewise, sticky board media can attract students' attention, and students can remember and inform learning, become a container for creativity in group work, and give birth to aesthetic and beauty values because of the diverse and harmonious arrangements. The main result of this learning is creating fun learning. So that in this lesson, the teacher's task is only to act as a motivator, mediator, and facilitator.

2 Methods

The method used in this research is Classroom Action Research, which means that action research is carried out in class [6]. Sukiyaki and Fauzi stated that this study's objectives were 1) Improving and enhancing learning 2) Improving the quality of education. 3) Fostering an academic culture in the school environment [7]. [8]. This study's subjects were 24 students consisting of 13 boys and 11 girls from Kedunghalang 3 Elementary School, Bogor City. This school is located on Jl. Foreman Naiman RT 05/02 PasirJambu, Sukaraja District, Bogor City, West Java Province with NPSN 20220500.

Analyze data by reviewing, grouping, systematizing, interpreting, and verifying data so that a phenomenon has social, academic, and scientific value. Furthermore, the data collected in each activity were analyzed descriptively using the percentage technique to see developments that occurred in learning activities in Indonesian subjects. In carrying out this research, two cycles of improvement are needed for Indonesian subjects [9]. In the learning improvement process, the researcher carried out three stages: planning, implementing, observing, and reflecting [10].

The data were collected by analyzing the written test results in each cycle in the following way: 1) In the pre-cycle questions, there were five multiple-choice questions and five questions with predetermined assessment points; 2) In cycle one, there are five multiple-choice questions and ten entries with predetermined assessment points; 3) in Cycle 2 with five multiple-choice questions and five entries with predetermined score points. The following assessments are carried out for the observation sheet with the discussions with class teachers about the advantages and disadvantages of implementing learning [11], [12].
The formula for calculating the student learning evaluation results for each cycle is the number of correct answers divided by the total score divided by 100. Next, determine the value range (R) for each cycle with the formula \( R = \text{largest value} - \text{smallest value} \). The next step is to determine the number of interval classes (B) with the formula: \( B = 1 + 3.3 \log n \) (n is many data). The final step is to determine the interval class's length (p) using the formula: \( p = \frac{\text{Value Range}}{\text{Many Classes}} \) [13], [14], [15].

3 Results and Discussion

The learning improvement process starts from the Pre-Cycle, then continues with learning twice, namely Cycle 1, which is an improvement from the initial learning, then Cycle 2 is an improvement from learning in Cycle 1. The time allocation for each study is 70 minutes or 2 hours learn. In the learning process activities from Pre-Cycle to Cycle 2, researchers are assisted by the teacher to observe the strengths and weaknesses of learning.

In pre-cycle learning, the lecture method is used with blackboard media and Indonesian language learning books. Learning activities are divided into three stages, namely first, planning with activities, namely: a) making learning plans, b) looking for indicators and objectives in learning, c) making and determining learning steps, d) determining material e) determining and making tools and learning media, f) preparing and making worksheets for students, and g) making and compiling learning evaluations. The second stage is the implementation stage. At this stage, it is divided into preliminary, core, and closing activities. Preliminary activities are carried out in the following stages: a) the teacher greets students and invites students to pray, b) Performs student attendance, c) Motivates by clapping the focus and sings the song "Halo-Halo Bandung", d) conveys objectives in learning, and e) do a question and answer. Furthermore, in the core activities as addressed by Sulfemi, the following actions were carried out: a) the teacher explained the Indonesian learning material to write an official invitation letter, b) students were asked to pay attention, and c) the teacher asked whether the students understood the material. Finally, the activity is closed by carrying out the following activities: a) students are welcome to ask questions that are not yet known, b) teachers and students conclude the material, c) students are ordered to work on worksheets, d) the teacher checks the answers of each student, e) the teacher provides feedback, f) the teacher provides motivation, reinforces the material and closes the lesson [16].

Based on observations during the Pre-Cycle using the lecture method, the total score was 1290, and the mean was 53.75. 3 students completed (12.50%) while 21 students (87.50%) did not complete. The highest score is 80, and the lowest score is 20. These scores are far from the minimum completeness criteria set.

Based on data, the interval's value, namely the class distance of 60, the class interval of 5.29 is rounded to a value of 5, and the interval class length (p) 12. From these data, the value range of 20 - 32 consists of 3 people (12.50%) range of values 33 - 45 there were five people (20.83), the value range 46 - 58 contained six people (25.00), the value range 59 - 68 contained seven people (29.17) and the value range 69 - 81 contained three people (12.50). The following is a graph of the frequency of pre-cycle learning outcomes. Following are the results of the pre-cycle interval values in the graph in Figure 1 below.
From Figure 1, it can be seen that most of the students who are in the 59-68 value range are 7 students or 29.17%. Thus, Pre-Cycle learning is dominated by students who are under the maximum completeness criteria.

To see motivation and interest in learning, observations are made by the teacher in a way that can answer and can't. The results of teacher observations, there were five students or 20.83%, who were able to answer the teacher's questions well. Meanwhile, 19 students or 79.17%, were not able to answer questions raised by the teacher.

After knowing the pre-cycle results did not reach the specified minimum completeness, it was continued with improving learning or cycle one activities using the method of modeling the way. Preliminary planning and implementation are the same as activities during the pre-cycle, which differentiate between core activities. In this activity, as conveyed by Rakasiwi, the following activities were carried out: 1) the teacher explained the material, students were asked to observe examples of official letters in the textbook. 2) Students respond to examples of official letters they observe. 3) Teachers and students carry out question and answer activities accompanied by examples, sections, and characteristics of official letters. 4) Students are divided into 5 groups then discuss examples of formal invitation letters from textbooks. 5) Students discuss with their groups to determine the parts of the letters by filling in student worksheets in the textbook. 6) Each group exchanges the results of the discussion and gives each other an assessment with teacher guidance. 7) Students do individual assignments on the worksheet, and 8) The teacher checks each student's answers [17].

At the end of the learning activity, the following actions were carried out: 1) The teacher and students reflected on the teaching and learning activities by asking the question: "Do you understand this material?" and "Would you like to write a letter after studying this?" 2) conclude the material between the teacher and students about learning outcomes. 3) students and teachers say hamdalah and prayers.

Learning cycle 1 obtained an overall value of 1.745 and a mean of 72.71. Ten students completed or 41.67%, while 14 students or 58.33% students had not finished. The highest score is 100, and the lowest is 50. The interval data can be calculated with a class value range of 50, the multi-class interval is 5.29 rounded to the number 5, and the class length interval is 10. From data, there are four students in 50-59 value range or 16.67 percent, the range of values from 60 to 69 there were 7 people or 29.17 percent, in the range of values 70 to 79 there were 7 people or 29.17 percent, in the range 80 - 89 there were 3 people or 29.17 percent, and in the range of 90 up to 100, there are 3 people or 12.50 percent—the frequency of the learning cycle. The
results of learning cycle 1 are presented in the graph in Figure 2 below to see the results of the interval data.

![Graph showing frequency distribution of learning cycle results.]

**Fig. 2. Frequency Distribution of Learning Cycle Results 1**

The graph in Figure 2 that learning cycle one has increased with the highest number of students in the range of 60 - 69 and the range of 70 - 79, namely there are seven students or 29.17%. However, these results have not improved overall student learning outcomes that are still below the minimum completeness criteria.

To see motivation and interest in learning, observations are made by the teacher in a way that can answer and can't. The teacher's observations during learning in cycle 1 were 11 people or 45.83%, and 13 students, or 54.17%, were still unable to be motivated in learning activities. After learning in cycle 1 the average value was still below the set. The researchers made improvements in cycle 2 by still using the method of modeling the way but adding sticky board media during learning. The pasting board media is a board with A3 size.

In the implementation of learning cycle 2, it is almost the same as cycle 1, which distinguishes only core activities. The following are the core learning activities of cycle 2: 1) Delivery of material by the teacher using instructional videos, students are asked to pay attention, 2) the teacher instructs students to sit in groups and follow a game on how to compile parts of an official invitation letter, 3) students grouped into 5 and given an assessment sheet, 4) the teacher will determine the order of the groups that will advance to compete in compiling parts of the official invitation letter through a lottery, 5) students who are members of the two groups compete to compile parts of the official invitation letter on the sticky media imparboard within 3 minutes in front of the class, 6) each group gives mutual appreciation and response verbally to other groups who have compiled an official invitation letter and gave an assessment on the assessment sheet provided, 7) after completion all groups move to the front of the class, each group writes a formal invitation letter on recycled paper repetitions that have been brought from home based on the description of the letter according to the official invitation letter format, 8) each group evaluates the work results with guidance from the visual media displayed by the teacher, 9) students do individual assignments, and 10) the teacher checks students' answers.

The results of Cycle 2 learning obtained a total value of 2195, an average value of 91.46. This result exceeds the minimum completeness criteria, namely 75.00. There were 23 or 95.83% who got complete scores, and there was one student or 4.17% who did not complete. A score of 100 is the highest score, and 70 is the lowest score.
The interval calculation from the data above shows that the class range is 30, many class intervals are 5.29 or rounded to a value of 5, and the class interval or (p) is 6. Based on this, it can be seen that the participants who are in the 70-75 there is one person (4.17%), in the range 76-81 there are four people (16.67%), in the range of values 82-87 there is one person (4.17%), in the range of values 88-93 there are seven people (29.17%), and values 94-100 there are 11 people (45.83%). The results of the intervals in learning in cycle two can be seen in Figure 3 below.

Based on Figure 3, the highest values are 94-100, which reaches 45.83%. Thus, in cycle 2, learning was dominated by the achievement of the minimum completeness criteria. To see motivation and interest in learning, observations are made by the teacher in a way that can answer and can't. The results of teacher activities observed during teaching and learning activities in Cycle 2 were 22 students who had the right motivation during the learning activities of Cycle 2 or 91.67%. Meanwhile, as many as two students, or 8.33%, were still unable to be motivated in learning activities.

Based on the overall data during the learning process, a summary of each cycle's learning outcomes can be made. The following are the results of learning Indonesian for each cycle, which is presented in Table 1 below.

**Table 1. Indonesian Language Learning Outcomes**

<table>
<thead>
<tr>
<th>No</th>
<th>Score</th>
<th>Pre-Cycle Amount</th>
<th>Pre-Cycle %</th>
<th>Cycle 1 Amount</th>
<th>Cycle 1 %</th>
<th>Cycle 2 Amount</th>
<th>Cycle 2 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Complete</td>
<td>3</td>
<td>12.50</td>
<td>10</td>
<td>41.67</td>
<td>23</td>
<td>95.83</td>
</tr>
<tr>
<td>2</td>
<td>Not Complete</td>
<td>21</td>
<td>87.50</td>
<td>14</td>
<td>58.3</td>
<td>1</td>
<td>4.17</td>
</tr>
<tr>
<td>3</td>
<td>Average</td>
<td>53.75</td>
<td>72.71</td>
<td></td>
<td></td>
<td></td>
<td>91.46</td>
</tr>
</tbody>
</table>

Based on Table 1, learning Indonesian from pre-cycle to cycle 2 continues to increase. The following is a summary of each cycle's learning outcomes, which is presented in the graph in Figure 4.
The data in graph four above shows an increase in student learning outcomes in each cycle. Whereas for a summary of the results of observations to see motivation and interest in learning, observations are made by the teacher in a way that can answer and cannot answer, the table is presented in Table 2 below.

Table 2. Percentage of Successful Observations for Each Cycle.

<table>
<thead>
<tr>
<th>No.</th>
<th>Criteria</th>
<th>Pre-Cycle</th>
<th>Cycle 1</th>
<th>Cycle 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Amount</td>
<td>Amount</td>
<td>Amount</td>
</tr>
<tr>
<td></td>
<td>Can Answer</td>
<td>5</td>
<td>11</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>20.83</td>
<td>45.83</td>
<td>91.67</td>
</tr>
<tr>
<td>1</td>
<td>Cannot Answer</td>
<td>19</td>
<td>13</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td>79.17</td>
<td>54.17</td>
<td>8.33</td>
</tr>
</tbody>
</table>

Based on the results of Table 2, a summary graph of teacher observations was made in seeing student motivation and interest. Following are the results of student motivation and interest in learning which are shown in the graph in Figure 5 below.

Fig. 5. Results of Observation of Indonesian Language Learning

By looking at Table 2 and Figure 5, the comparison of the acquisition of motivation and interest in learning through teacher questions and answers in pre-cycle, cycle I, and cycle II...
continues to increase. This shows that students' understanding of learning has also increased. This study's results are consistent with research from Anegawati and Riananda's research that the method of modeling the way can provide several things, namely 1) Increasing students' understanding and knowledge, 2) arousing interest, motivation, and enthusiasm in learning, 3) can guarantee the development of students in learning, 4) express students' expression, creativity, and personality, 5) stimulate students to be more active in studying, 6) help students in learning alone or independently, and 7) can guide students as well to be responsible. [18], [19]. Likewise, the use of sticky board media provides several things, namely 1) It can attract students' attention, especially if it is placed in a strategic place, 2) Can be used to remember and inform student behavior, 3) Students become creative, 4) the emergence of aesthetic values and beauty due to diverse and harmonious arrangements, deep, and, 5) the creation of a sense of responsibility and love for the work and appreciation for the work of his friends [20], [21].

However, students whose learning outcomes do not reach the minimum completeness criteria because of weaknesses in experiments and data collection. These results prove that modeling how media on the sticky board has provided good enough learning outcomes and motivation for students. Therefore, learning reaches cycle 2 because the learning has been successful, with an increase in the student's average score that exceeds the set score.

4 Conclusion

This discussion can be drawn the following conclusions: First, the use of method modeling media and sticky boards can improve learning outcomes in Indonesian subjects. This can be seen from the learning outcomes in the second cycle, reaching an average of 91.46. Second, the increase in student interest and motivation can be seen from teacher observations that in cycle II, there were 22 people, or 91.67%, who were able to answer questions given by the teacher in question and answer. Third, the escape of expression, creativity, the formation of student personality, which is responsible for helping students to learn independently, and making the learning atmosphere fun so that students and educators enjoy the learning process.

Based on these conclusions, several things must be done, namely: 1) teachers should improve and analyze the quality of learning to improve, generate interest, motivation, and learning outcomes, 2) Teachers get used to it continuously, periodically, programmatically, and continue to improve the quality of learning, especially Indonesian language lessons, and 3) There is a need for further research, with other subjects and themes.

Acknowledgment

This study would not have been carried out without several parties forming it. Therefore, the authors would like to thank the observers from Bismas 2020, LPPM STKIP Muhammadiyah Bogor, Head of the West Java Language Center, Principal of SDN Kedunghalang 3 Bogor City Mrs. EtiKurniati, S. Pd.
References


Gender Role in Mediating Capital Relations and Information Technology Investment with SME Financial Performance During the Covid-19 Pandemic

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Abstract. This study aims to test the role of gender in mediating capital relations and information technology investment with the performance of SMEs during the covid-19 pandemic. SMEs are also affected by the covid-19 pandemic, so the financial performance of SMEs is disrupted. SME problems during the covid-19 pandemic are related to capital and the demands of the use of information technology so that SMEs need to invest in information technology. Besides, gender roles are very important in managing SME finances to improve their financial performance. Thus, this study incorporates gender to mediate the gap between capital and information technology investment and the financial performance of SMEs. The samples in this study are SMEs in Rembang Regency. Sampling techniques using cluster sampling and obtained samples as many as 142 SMEs. The results showed that capital has a positive effect insignificant on the financial performance of SMEs, while information technology investment has a significant positive effect on the financial performance of SMEs. This study proves that gender can mediate the relationship between capital and information technology investment with the performance of SMEs during the covid-19 pandemic.

Keywords: Gender, capital, information technology investment, financial performance

1 Introduction

Capital is a major factor in a business. Capital owned by the company will affect the performance of a company and the sustainability of its business. Capital obtained by a company, its use will depend heavily on its business needs. But in general, the capital owned by the company will be used for the company's operations and also for investment. The company's capital structure will affect financial performance [1]. So is the importance of capital for small and medium enterprises (SMEs). SME capital usually comes from its capital, from its SME owners. This is because SMEs have limitations in accessing external sources of funds, such as debt to banks [2]. This is similar to research found by Gul [3] capital from debt negatively affects performance in SMEs in Pakistan.

On the contrary, the results of the research found by [4], [5], and [6] that the capital owned by SMEs has a positive effect on performance. Capital has a positive influence on the performance of SMEs perhaps because SMEs can manage their capital well. The capital is used effectively and efficiently so that its performance becomes increased. Another possibility is that
the capital owned by SMEs is used for efficient operations and proper investment so that it can achieve high performance.

Another important factor that affects the performance of SMEs is investment. In the financial function of the company, investment is one of the important factors that must be taken into account by the company [7], because with the investment made, the company can develop its business so that it can achieve high performance. High company performance is a goal that must be achieved by every company for the sustainability of its business. One of the investments that need to be made by SMEs is an investment in information technology, in this case, SMEs can invest in the procurement of websites, laptops, smartphones, or desktop computers.

In today's digital era, investment in information technology is very important to support the performance of SMEs. Investment in information technology can be used for promotion or marketing or financial recording of business transactions. Especially in the current Covid-19 pandemic, where most business transactions use digital. This is by data from Kominfo that in 2017 internet users in Indonesia of 132 million active internet users and social media users amounted to 106 million. Of the 106 million social media users, YouTube users by 49%, Facebook by 48%, Instagram by 39%, Twitter by 38%, WhatsApp by 38%, and Google by 38% [8]. Judging from its domicile, 78.5% of all Internet users in Indonesia live in western Indonesia.

The results of research [9] [10] that investment in information and communication technology has a positive effect on the performance of SMEs. Studies as [11], [12], and [13] found that information technology has a positive effect on the performance of SMEs. Research [14] investment in R&D negatively affects performance, but investment in information technology has a positive effect on the performance of SMEs. Different results indicated by the [15] found there was a 60% decrease in investment in start-up SMEs in China in the first quarter of 2020 compared to the first quarter of 2019.

The Covid-19 pandemic has a profound impact on the economy globally, including in Indonesia. At the time of the Covid-19 pandemic in Indonesia starting in March 2020 greatly impacted SMEs. According to the Ministry of SMEs and Cooperatives that until October 2020 SMEs were affected by the Covid-19 pandemic as much as 90% [16]. The impact is very felt by SMEs in Indonesia, including SMEs in Rembang Regency. To overcome the impact of the Covid-19 pandemic, the government is implementing the National Economic Recovery (PEN) policy by providing direct cash assistance to SMEs so that SMEs can rise again.

However, the results of research [17] show that women SME actors in Pathumthani province in Thailand as a key factor in the recovery of SMEs performance after the flood disaster in 2011, meaning that women SME actors can improve the performance of MSMEs. The results of the study are interesting for us to include gender, in this case, women SME actors become intervening variables in overcoming the gap between capital and investment in information technology and the performance of SMEs. The results are also supported by the findings [18] and [19] that SME entrepreneurial women can improve their business performance.

Data from [20] the role of self-employed women in urban areas is 20.95% and in rural areas by 18.47%; while men are 18.54% for urban areas and 18.63% for rural areas. For women who are self-employed to be assisted by out-of-work/underpaid workers in urban areas by 10.99% and in rural areas by 16.85%; while the male in urban areas by 9.34% and rural areas by 25.92%. The data shows that the gender role of women is entrepreneurial, especially in urban areas are still better than men. Based on the gap in research results and phenomena as described above, this study aims to test the role of gender in mediating the influence of capital and investment on information technology on SME performance during the Covid-19 Pandemic.
2 Method

The population in this study is SMEs in Rembang regency. SMEs were chosen because they have a significant contribution to the economy, but are currently most affected by the Covid-19 pandemic. Sampling in this study using cluster sampling was done by dividing the population into groups or parts. Multiple clusters are then randomly selected. The data items in the selected cluster are sampled.

Data collection techniques in this study use survey techniques by distributing questionnaires directly to SME managers (owners) who are eligible for sampling. SME population data in Rembang regency as much as 586, from the population, will be sampled as many as 200 companies. The number has met the adequacy of the sample statistically. [21] a good number of samples for research with a minimum multivariate analysis method of 130. The results of the distribution of questionnaires to 200 SMEs respondents in Rembang Regency can be seen in Table 1.

<table>
<thead>
<tr>
<th>Information</th>
<th>Amount</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distributed questionnaire</td>
<td>200</td>
<td>100%</td>
</tr>
<tr>
<td>Non-returned questionnaire</td>
<td>(42)</td>
<td>(21%)</td>
</tr>
<tr>
<td>Questionnaires were returned</td>
<td>158</td>
<td>79%</td>
</tr>
<tr>
<td>The questionnaire is incomplete and cannot be analyzed</td>
<td>(16)</td>
<td>(8%)</td>
</tr>
<tr>
<td>Total questionnaire analyzed</td>
<td>142</td>
<td>71%</td>
</tr>
</tbody>
</table>

The variables in this study consisted of independent variables, mediation variables, and dependent variables. The independent variables in this study were capital measured by the amount of working capital used and investment in information technology measured using a Likert scale of 1 to 5, ranging from highly unavailable to highly available with the number of 10 statement items. The mediation variable in this study is gender, namely if women SME actors are rated 1 and if male SME actors are rated 2, it is because this research will look at the role and involvement of entrepreneurial women in SMEs. Dependent variables in this study are financial performance as measured by the income earned by SMEs. Statistical testing using path analysis with WarpPLS application software with the following equation:

\[
\text{Gender} = \alpha_1 + \beta_1 \text{Capital} + \beta_2 \text{InvesTI} + e_1 \tag{1}
\]

\[
\text{Perform} = \alpha_2 + \beta_3 \text{Capital} + \beta_4 \text{InvesTI} + \beta_5 \text{Gender} + e_2 \tag{2}
\]

3 Result and discussion

This study uses path analysis to test the role of mediation variables, namely gender in mediating the influence of capital and investment on information technology on the financial performance of SMEs. Direct effect test results can be seen in Table 2.
Table 2. Direct Effect Test Results

<table>
<thead>
<tr>
<th>Path</th>
<th>Coefficient</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital 🡪 Perform</td>
<td>0.025</td>
<td>0.375</td>
</tr>
<tr>
<td>InvesTI 🡪 Perform</td>
<td>0.303</td>
<td>&lt;0.001***</td>
</tr>
<tr>
<td>Capital 🡪 Gender</td>
<td>0.122</td>
<td>0.074*</td>
</tr>
<tr>
<td>InvesTI 🡪 Gender</td>
<td>0.163</td>
<td>0.023**</td>
</tr>
<tr>
<td>Gender 🡪 Perform</td>
<td>0.136</td>
<td>0.051</td>
</tr>
</tbody>
</table>

Description: * significant at 10%, ** significant at 5% and *** significant at 1%

Capital as an independent variable measured by capital issued by SMEs; InvesTI is an investment in information technology as an independent variable measured on a Likert scale of 1-5, ranging from highly unavailable to highly available with a total of 10 statement items; Gender is a mediation variable measured by 1 for women and 2 for men, and Perform is the financial performance of SMEs as measured by the assets obtained by SMEs.

Table 2 shows that capital has an insignificant positive effect on the financial performance of SMEs. This means that there is no direct influence of capital on the financial performance of SMEs. These findings show that SMEs in Rembang Regency is also affected by the Covid-19 pandemic. This is most likely because most SMEs do not produce to the maximum due to the decrease in the purchasing power of the community. Another reason is because of the policy of limiting the opening of stalls, offices, tourist attractions, and others so that SMEs can not sell their products to the maximum which is due to the decrease in SME income.

However, along with the easing of the policy of restricting business premises, offices, and tourist attractions, as well as the presence of direct cash assistance for SMEs from the government, the condition of SMEs has begun to rise again. It is also confirmed when the inclusion of gender variables, in this case, is female entrepreneurship as a mediation variable, it turns out that the results of this study found there is an indirect influence of capital on the financial performance of SMEs in Rembang Regency. This means that gender, namely entrepreneurial women have an important role in raising the financial performance of SMEs in Rembang Regency. This is because women tend to be able to manage financially than men. During the Covid-19 pandemic, entrepreneurial women can manage their capital well for their business interests.

SME business capital must be managed properly by SMEs to rise from the uncertain economic conditions due to the impact of the Covid-19 pandemic and for the sustainability of SME businesses. In the Covid-19 pandemic, it requires the role of female entrepreneurs to manage SME capital to rise from the decline in performance, especially in utilizing capital from the government in the form of direct cash assistance. Sources of business capital can come from internal, namely own capital or paid-up capital and retained earnings, can also come from external sources, namely debt in banks, bond debt, and venture capital [23]. However, most SMEs tend to use internal sources of capital, namely their capital, due to limited access of SMEs to financial institutions such as banks and others. In theory, the implementation of SMEs in the use of capital sources tends to use pecking order theory [24].

The findings of this study are consistent with the results of study [4], [5] and [6] which found that capital has a direct effect on the performance of SMEs. These results are also reinforced by research [17], [18] and [19] found that gender can mediate the effect of capital on the performance of SMEs. The results of this study show that gender, in this case, is that entrepreneurial women have a significant role in mediating the influence of capital on the financial performance of SMEs.
Table 2 also shows that investment in information technology has a significant positive effect on the financial performance of SMEs. This means that there is a direct influence of investment in information technology on the performance of SMEs in Rembang Regency. This happens because SMEs in Rembang Regency have used information technology, especially on social media. Investment in information technology during the Covid-19 pandemic is very important because people are restricted from directly intervening. It requires business transactions to use information or digital technology. So it is appropriate if SMEs in managing their business during the Covid-19 pandemic invest in information technology, meaning that SMEs buy and use information technology such as smartphones, websites, laptops, and personal computers to market and promote their products through social media such as WhatsApp, Instagram, the Facebook, marketplace, and others, which can expand the reach of the market and can gain new customers from outside the city, perhaps even abroad so that the performance of SMEs can increase.

Investment in information technology in addition to being used for marketing activities can also be used to record business financial transactions because currently there are many applications to make financial statements downloaded for free. The findings are by investment behavior in neoclassical theory [25]. The theory explains that it is the exogenous variable that determines the company's investment, namely sales. When sales increase, then followed by investment decisions, vice versa when sales fall the company's investment will also fall. This is because sales are the main determinant that affects investment.

If SMEs can be appropriately and effectively invested, it will be able to improve performance, which means it can improve the welfare of owners. Information technology used by SMEs according to [11] can significantly improve the financial performance of SMEs, especially the use of social media [26]. The findings of this study are the following results of research [9], [10], and [14] found that investment in information technology can improve the performance of SMEs.

The findings of this study also show that gender, namely SME entrepreneurship women in Rembang regency can mediate the influence of investment on information technology on the financial performance of SMEs. This means that there is an indirect influence of investment in information technology on the financial performance of SMEs. This shows the very important role of entrepreneurial women in improving the performance of SMEs during the Covid-19 pandemic. The role of women today is proving capable of competing with men in the economy. Not only at the family level, but also at the national and even global level. Not a few women manage their businesses, by establishing micro, small and medium enterprises (MSMEs). With its spirit, creativity, innovation, and ability, women can become strong entrepreneurs in doing business. According to [27] and [28] women's success in entrepreneurship is also supported by their advantages, among others: conscientious, diligent, serious, painstaking, tenacious, honest, patient, strong will, high dedication, as well as discipline in administration and managing finances.

The results of [12] that the adoption of information technology by SMEs in India had a significant positive effect on the performance of SMEs in Bangladesh. The East Java also found that gender, namely entrepreneurial women have used information technology in the form of e-commerce for competitive strategies to improve the performance of SMEs. The findings of this study also show that investment in information technology by SME entrepreneurs in Rembang Regency can improve its financial performance, especially during the Covid-19 pandemic. So that these findings can show that gender, namely entrepreneurial women can mediate the influence of investment on information technology on the financial performance of SMEs.
full gender role models in mediating capital and investment in information technology to the financial performance of SMEs can be seen in Figure 1.

![Fig. 1. Full Model Research](image)

### 4 Conclusion

From the description above, the conclusions of this study are: first, during the Covid-19 pandemic, capital did not have a significant effect on the financial performance of SMEs, this was because there were not many SMEs producing due to government restrictions and decreased purchasing power. Second, investment in information technology has a significant effect on the financial performance of SMEs. This means that during the Covid-19 pandemic it is important for SMEs to invest in information technology in the form of smartphones, laptops, and personal computers because it is prohibited to confuse directly between people, and as a solution, they must take advantage of information technology, both for marketing through social media, websites or marketplaces, sales, or other business transactions. Third, gender can mediate the effect of capital and information technology investment on the financial performance of SMEs. These findings prove that women entrepreneurs have a very important role in improving the financial performance of SMEs.

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### References


The Role of Parental Assistance in Improving Children's Learning Quality During the Covid-19 Pandemic

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Abstract. The research aims to see the effectiveness of parents in children's learning independence during the Covid-19 pandemic. This research is a qualitative descriptive study. The objects of this research are students and their parents and students. The data technique used observation and interviews. Interviews were conducted with a list of interview questions that will be developed in the related literature. The results showed that the role of parents as educators in children's learning, the role of parents in guiding children, the role of parents in providing motivation to learn, parents establish intense communication for children, parents are good examples for children, and there is a role. parents who provide variety and innovation in learning so that children don't get bored. However, there is still the role of parents who have not been maximal in providing learning to independent children, the causative factor lies in the background of parents with a low degree of education, a disharmonious family, low family economic level, and the lack of awareness of the parents themselves, and facilities and infrastructure. which does not support the learning process during the Covid 19 pandemic.

Keywords: Learning quality, independent learning, parental assistance

1 Introduction

In the world of education, the Covid-19 outbreak has changed learning patterns that should be carried out in general or face-to-face to distance learning or what is called online. Educational activities in schools that are very closely related to the interaction between teachers and students and students and students have to be stopped (social distancing) by replacing them with distance learning (online). Online learning is learning that utilizes virtual and internet technology [1]. Online learning is applied to all levels of education from early childhood to university.

This is not an easy thing for all elements of education, especially the role of parents in dealing with the learning system transition. her children [2]. However, today's conditions are different, parents are more important and have more time to guide their children and develop deeper emotional closeness than before. At the hospital, doctors are at the forefront of treating Covid-19 patients. So it cannot be denied that while studying at home the parents are the front guard in guiding their children. Generally, education is a system that is interrelated between one component and another. Teachers, students, media and the environment are all part of this component. What supports children's learning and learning motivation is the environment. The environment is the school environment, family environment and daily social environment.
Online learning is provided by the teacher through monitoring from the school by giving assignments every day to parents at home. Therefore, in the midst of busy parents at home, they demand parents to be able to accompany children to learn every day, so that parents are required to spend the time accompanying children studying at home. The form of the role of parents is actually a form of the role of teachers in school, such as providing motivation in all things, being happy friends for learning, helping in solving problems and difficulties faced by children while learning and developing children's self-confidence [3]. It is hoped that involving learning assistance by parents can increase children's potential at home, parental involvement tends to have a positive effect on the success and learning development of children [4].

The family life of parents generally plays an important role in instilling cultural values and social values in children so that they can behave in accordance with existing rules in society and can participate as members of their community groups [5]. The first position in educating and teaching values and norms to individuals lies with the family, to reveal how important the influence of family, environment and experiences is on children's development. Parents, as companions for their children, have a role in providing support to achieve the desired quality of education. Every parent has a desire and goal for the success of their children in the future. Therefore, the participation of parents is very necessary in supporting the progress and education of a child. Parents are a role model for their children's lives [6]. Parents are one of the informal schools. So parents actually have a significant share and contribution to children's learning motivation.

The family life of parents generally plays an important role in instilling cultural values and social values in children so that they can behave in accordance with existing rules in society and can participate as members of their community groups. Talking about the role of parents, it cannot be separated from the family [7]. Parents are the first and foremost figures in children's education [8]. States that the family is seen from its function, namely having a duty and function of care, emotional and material support, and fulfillment of certain roles. Family has an important role in caring for, educating, protecting and caring for children. Stated that parental care for their children can affect the formation of children's character and behavior. Parents, as companions for their children, have a role in providing support to achieve the desired quality of education. Every parent has a desire and goal for the success of their children in the future. Therefore, the participation of parents is very necessary in supporting the progress and education of a child. Parents are the first and foremost educational institution or school for children. Therefore, the role of parents as a substitute for teachers is needed in guiding their child during the distance learning process [9]. In academic achievement, it shows that the influence of parental involvement on student academic success should not be underestimated. The family is important in inculcating habits and behavior patterns, and instilling values, religion and morals according to age and family culture [10]. Parents are an informal school. So real parents have a significant share and contribution to motivation. Based on this, this study focuses on the implications of the role of parental assistance in improving the quality of children's learning during the Covid-19 pandemic.

2 Method

The research method in this study is descriptive qualitative method, namely research on data collected and expressed in the form of words arranged in sentences, namely sentences resulting from interviews conducted by researchers and informants. Structured interviews were
conducted based on related literature. The respondents in this study were parents of elementary school students. The approach taken in this study is the ethnographic design approach (ethnographic studies), where researchers describe and interpret social groups and systems of parental involvement in certain groups. The position of researchers in qualitative research is one of the main instruments in conducting research. Researchers collect data from start to finish. The data collection technique carried out is by means of structured interviews. The purpose of this study was to determine the implications of the role of parental assistance in improving the quality of children's learning during the Covid-19 pandemic.

3 Result and discussion

The role of parents in supporting learning activities at home during the pandemic period so as to improve the quality of learning. The contribution of parents to education greatly affects the quality of children's learning. The contribution of parents to education must be carried out in a sustainable manner in motivating, providing direction and encouraging as well as providing the means to achieve ideals in educating children. Through activities to obtain information in conducting research, interview-taking activities were carried out by asking questions to informants regarding the role of parents in learning activities carried out during the Covid-19 pandemic. Researchers distributed questionnaires to people to find out the percentage of student assistance in learning at home. The percentage of the number of people who accompany students to study at home present at Figure 1.

Based on Figure 1, it can be seen that not all parents accompany their children to study at home. Based on the interviews conducted, there are many factors that cause parents not to be able to accompany children to study at home. One of the factors that causes it is that there are some parents who are busy working so that there is no time to accompany their children to study at home, other than the reason parents are busy working is that there are still parents who do not master the subject matter given to children by the class teacher, this problem is influenced because there are still parents who have very low education so that it has an impact on their knowledge. In improving the quality of learning for children, parents need learning assistance from others, namely tutors and other family members. Based on the data obtained by researchers, there is a big problem, namely there are children who do not get assistance in the learning process at home. during the covid pandemic.
During the learning process at home, parents accompany their children to learn, parents have the task of always monitoring the development of children's learning activities. Based on the data obtained, there are several activities carried out by parents in monitoring the development of children's learning activities at home. There are shows at Figure 1.

![Parent Activities](image)

**Fig. 2. Parent activities**

Based on Figure 1, there are several activities or activities carried out by parents in monitoring children's learning development. From this data, it can be concluded that the activities that parents often do are always checking what tasks are given by the teacher, checking whether the tasks done by the child are correct, giving additional assignments to find out whether the child understands the material provided by the teacher. Other activities carried out by parents are communicating with children about what difficulties children experience during the learning process, and activities that parents rarely do are consulting with teachers regarding obstacles experienced by parents in accompanying children. Based on the questionnaire distributed, all parents agreed that parents and teachers must always communicate in monitoring learning progress such as the material provided, in addition to the material provided, the teacher must also communicate whether the daily assignments have been done, whether the subject matter given can be understood, whether the child is can follow the lesson well, are there any obstacles in following the lesson, what are the difficulties experienced in online learning. Parents must inform the teacher of all children's activities with the aim that the online learning process can run smoothly in accordance with the learning objectives that have been set so that the child's abilities increase.

Online learning, the responsibility for the success of children is not automatically given to parents, but teachers still hold this responsibility by monitoring the learning process at home / evaluating online learning activities. Learning evaluation must be carried out by the teacher to determine the level of effectiveness of the implementation of online learning or in other words to find out how far the learning objectives have been achieved. The effectiveness of learning is seen from 3 aspects, namely student activity during learning, student responses to learning, and mastery of student concepts after learning. The effectiveness of learning is not only measured by learning outcomes, but also from the processes and learning support facilities. In order for the learning process to run as it should, there needs to be two-way communication between the
Building communication is important so that parents understand the learning objectives expected by the teacher and vice versa, the teacher also understands the wishes of parents in assisting children to study at home. Parents' expectations for online learning include: the material presented can be understood by children well, instructions for doing assignments must be clear, the assignments given are not burdensome for children. Communication between students and teachers is more intense if there are obstacles, the material presented is easy to understand, the material is integrated with student life, learning is fun for students, and obtains skills and character education.

4 Conclusion

Improving the quality of learning during the Covid-19 pandemic, especially in elementary schools (SD), cannot be separated from the important wars of parents and teachers. Parents who are busy working cannot accompany their children in learning so they need help from others, such as family members. Besides work problems, there are still parents who do not understand the subject matter provided by the teacher, so they need assistance from other parties, such as tutors. Activities that parents can do in accompanying children to study at home include: checking the material and assignments given by the teacher, checking the tasks that the child has done, helping to improve children's understanding of the material given, always communicating with children about the obstacles faced during the learning process, teachers and parents always communicate in improving the quality of children's learning. The communication that is built by teachers and parents is very important so that the application of online learning is in line with expectations including: children can understand the material given well, the assignments given must be clear, the assignments given by the teacher can be done by children and do not burden the child, the material provided by the teacher fun for children, online learning can increase student knowledge.

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References


Work Readiness: a Review of the Influence of Industrial Practice and Vehicle Tune-Up Competency

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Abstract. This study aims to examine the effect of industrial practice work programs and vehicle tune-up competencies on job readiness. A quantitative research using an ex-post facto approach was selected to test hypotheses based on existing facts. 169 respondents were selected as part of the cluster randomization technique. The data were collected through tests and observations and analyzed using the SPSS software. The results showed that (1) there was a positive effect on practical work programs on job readiness with a contribution of 14.7%; (2) positive influence of tune-up engine competency on job readiness with a contribution of 72.1%; and (3) both have the effect of 23.3% simultaneously. The important factors in preparing for employment are the supply of vocational training students prior to the implementation of industrial practice programs and increased opportunities to put development drivers into practice.

Keywords: Industrial work practices, tune-up competence, job readiness

1 Introduction

Vocational education has an important role in developing human resources in each country [1], [2], it has even become a global trend. Several countries have succeeded in providing vocational education. One indicator of the success of vocational education is the decline in unemployment [3], and the absorption of graduates in work, continuing and entrepreneurship according to their field of expertise [4]. However, according to BPS data, vocational education contributed to a high unemployment rate of 8.49% in February 2020. The highest contributor was adolescents aged 15-24 years at 16.28%. This figure shows that vocational student readiness is being questioned again. How vocational students form the competencies needed in the industrial world.

Work readiness is a priority factor for vocational students [5]-[7]. Do so far vocational students in implementing school learning have an impact on job acceptance in the industry. Work readiness in the vocational field, especially in the automotive sector, is influenced by the implementation of industrial practice programs and competence in the field of expertise, namely vehicle tuning. One of the link and match policies in Indonesia is through industrial practice.
programs [8], [9]. The industrial practice program is an apprenticeship program equivalent to a dual system education in which vocational students develop their experience in the industry directly. Through this program, vocational students have many benefits, including (1) students can learn directly to face consumers; (2) carrying out an industrial work culture; and (3) accepted to work after graduation, if they have industry standard qualifications [10]. Thus, the industrial practice program becomes a catalyst for vocational students in applying and directly learning the characteristics of the world of work. The problems that arise are the students' unpreparedness in mastering the basic competencies and opportunities given in the limited industrial world, as well as incomplete trust from the industry [11]-[13].

Work readiness is also influenced by student competence during academic studies at vocational schools. In this study, the correlation is determined from one of the competencies commonly needed in the automotive industry, namely Tune up engine [14], [15]. Vocational students who have certain abilities can take competency tests to obtain national standard legality and become portfolio documents that are considered specifically in the industrial world (trust value) [16][17]. However, the problem that often occurs is that vocational students are not directly involved in implementing practices or limited practical opportunities, resulting in the lack of insight they have [18] [19].

The results of observations that have been carried out at a vocational school, Purworejo-Indonesia, found the tune-up engine competency based on the value of learning completeness, more than 60% of vocational students were declared incompetent. Other problems also occur, due to the choice of a simple industrial workplace. The results of interviews that have been conducted by several vocational students chose industrial workplaces in simple places with consideration of the proximity to their homes. The researcher's analysis is based on the secondary data, that the readiness of students needs to be tested for its effect. The hypothesis in this study is (H1) how the influence of industrial work practice programs on automotive student work readiness in vocational schools. (H2) how the influence of vehicle tune-up competence on automotive student work readiness in vocational schools. (H3) how the influence of industrial work practice programs and vehicle tune-up competencies together on automotive student work readiness in vocational schools. This influence test recommends a high-impact relationship value and is used as a reference for comparison for other vocational schools.

2 Method

This research is a quantitative study with an ex post facto approach, adapted from Neil [20]. This study believed that experimental research was conducted to test the hypothesis in treatment [21], [22]. In theory, work readiness correlates with programs, industry work practices, and vehicle tuning competencies. The number of respondents in the study was 169 people selected in the cluster random sampling consisting of 10 classes. The data were collected using a test sheet and an observation sheet in the form of a questionnaire. The data analysis was performed using the analysis, prerequisite test, namely the normality test, current test, multicollinearity test, and hypothesis testing using SPSS software.
3 Result and discussion

3.1 Normality test

The normality test uses the Kolmogorov Smirnov Z test to calculate the residual value with the acquisition of 0.924 with a probability value of 0.360. The probability value (p = 0.360 > 0.05), then the data is normal and tests for linearity.

3.2 Linearity test

Linearity testing aims to determine the pattern of relationships between variables. If the probability value is greater than 0.05 then the variable is formed linearly. The value obtained by the variable industrial work practice program on job readiness is obtained by df 14, F of 1.075 and p = 0.384, greater than 0.05. and the value obtained by the vehicle tune-up competency variable on work readiness is obtained df 7, F is 9.940 and p = 0.875 is greater than 0.05, so both variables are linear.

3.3 Multicollinearity test

The multicollinearity test is a multiple regression assumption test by comparing the VIF value. The industrial work practice program variable obtained a tolerance value of 0.934 with a VIF value of 1.070 < 10, so there was no multicollinearity. Whereas in the vehicle tune-up competency variable, it was obtained a tolerance value of 0.934 with a VIF value of 1.070 < 10, so there was no multicollinearity.

3.4 Hypothesis test

Figure 1 shows the correlation between IWP program and tune up engine competence on work readiness.

![Diagram](image)

**Fig. 1.** Correlation between IWP program and tune up engine competence on work readiness

3.5 Discussion

Based on the results of research on the effect of industrial work practices and vehicle tune-up competence on work readiness using multiple regression analysis, the equation $Y = 40.813$
+ 0.281X1 + 0.286X2 is obtained with a constant value for the regression model equation is 40.813, this shows that without work practices industry and state tune-up competence, then student work-readiness can still improve. The test results of the effect of industrial work practices on job readiness obtained $t_{count}$ 4.184 > $t_{table}$ (1.645) with a p-value of 0.00 < 0.005 so that the hypothesis is accepted, meaning that there is an effect of industrial work practices on job readiness. Thus, the higher the value of industrial work practices, the student's work readiness will increase [23][24].

The test results of the effect of tune-up vehicle competence on student work readiness were obtained 0.420 and $t_{count}$ 5.977 > $t_{table}$ (1.645) with a p-value of 0.00 < 0.005 so that the hypothesis is accepted, meaning that there is an effect of vehicle tune-up competence on student work readiness. Thus, the higher the tune-up competency value of the vehicle, the student's work readiness will increase [25]. There is a positive and significant influence jointly between industrial work practices and vehicle tune-up competence on student work readiness obtained by $F_{count}$ 23.309 > $F_{table}$ (2.99) with a p-value of 0.00 < 0.005, so the hypothesis is accepted.

4 Conclusion

Based on the results of the discussion above, it can be taken, namely (1) there is a positive influence of industrial work practices on vocational student work readiness with the contribution of the influence of industrial work practices on job readiness is 0.147 or 14.7%, (2) there is an influence of vehicle tune-up competence on vocational student work readiness with the contribution of the influence of vehicle tune-up competence to work readiness is 0.721 or 72.17%, (3) there is a positive influence on industrial work practices and vehicle tune-up competence on vocational student work readiness with a contribution of 0.219 or 21.9%. The size of the relative contribution was 100%, while the effective contribution was 23.304%. Recommendations from the study results, namely (1) vocational schools are deemed necessary to provide competencies relevant to the industrial world, and (2) emphasize the opportunity to practice tune-up engines.

References


The Regulation on Sexual Violences in Criminal Code

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Abstract. The regulation on sexual violence in the Criminal Code is limited to rape and obscene acts. In fact, forms of sexual violence are becoming more varied. The purpose of this study is to analyze and evaluate the formulation of rape and obscene act as regulated in the Criminal Code. This study shows that the form of rape in marriage is part of sexual violence as well as forced oral and anal sex and other means are. Other acts that constitute sexual violence are sexual harassment and sexual violence based on gender. This study concludes that the regulation of sexual violence in the Criminal Code does not accommodate other forms of sexual violence. It is necessary to expand the concept of sexual violence in the future formulation of the Criminal Code.

Keywords: Criminal code, Sexual violence

1 Introduction

The issue of sexual harassment, violence based on gender relations and actions with a broader dimension concerning women's sexuality has not been formulated in the rule of law. The meaning of violence in the context of sexual violence does not have to mean aggressive behavior or actions, but also acts that are degrading, attacking one's sexuality.

The problem is that the current development of forms of violence is not regulated in the formulation of the Criminal Code. This creates problems, especially the fulfillment of the right to justice for women. Sexual violence is deviant sexual relations, which is very detrimental to the victim. The victim is a woman. Thus, women as victims of sexual violence are the most important parties to pay attention to.

In several decades, the changes to Criminal Code have not been realized in accordance with the needs of the legal development of Indonesian. Meanwhile, in its existence, the Criminal Code serves as the main legal umbrella and general guideline in the formation of laws and regulations concerning criminal matters. There is a saying that if one wants to see a civilization of a nation, it is by looking at the Criminal Code. It is important to reform the regulation of sexual violence in the Criminal Code as a form of protecting women's human rights.

2 Method

Bahder Johan Nasution stated that the legal source for normative legal science are mainly primary and secondary legal materials by using a normative juridical approach, interpretation method and the normative juridical analysis as it does not use statistics, and the theory of truth is pragmatic and full of values. In relation to this research, this study will analyze the articles in
the Criminal Code that regulate sexual violence, especially on rape and obscene acts with conceptual and legal theories approach

3 Result and Discussion

One of forms of sexual violence known in Criminal Code is rape as regulated in Article 285 of the Criminal Code, which regulates the prohibition of anyone who forces a woman to have intercourse with him, either by force or threat of violence committed outside of marriage. Another form is obscenity as regulated in Article 289 of the Criminal Code. What is referred to as obscene acts is an act committed by a person with violence or threats of violence forcing someone to commit obscene acts or allowing the act to be committed. The qualifications for certain acts are regulated in several articles of the Criminal Code, such as engaging in people who are unconscious or defenseless, committing sexual violence against children, and committing sexual violence against the same sex and so on. Such forms are considered to be insufficient to provide protection for women, because in fact there are many dimensions of acts that fall into the category of sexual violence but are not regulated in the Criminal Code.

The articles regulating sexual violences are Article 285 on rape through intercourse, Article 286 on rape towards person in faint or helpless state, and Article 289 on obscene act committed with violence and threat of violence. Regarding this formula, the writers argue that it does not represent broader sense of sexual violence. In other words, sexual violence is limited to rape (through intercourse) and obscene act. Thus, other acts other than the mentioned, such as sexual harassment, do not considered as part of sexual violence.

Furthermore, in the case of rape, the Criminal Code does not provide a definition of rape. The definition of rape thus refers to doctrine. In the doctrine, rape is limited to vaginal penetration. This definition does not accommodate penetration other than vaginal, i.e. oral, anus and other organs. The Criminal Code does not contain the definition of sexual intercourse or obscene act. Thus in the case of making charges in court, the act of sexual intercourse is subsided with the act of obscene act, so that if the defendant is proven not to have intercourse, the defendant is usually charged with the article of obscene act. This things could lead to the condition where the perpetrator will be subject to a lower verdict, as the punishment of obscene act is lower than the punishment of rape.

The meaning of obscenity in the Criminal Code refers to doctrine as well. This meaning is explicitly synonymous with rape. Therefore the writers argue that sexual immorality should be included in the section or types of rape, as the element of the obscene act is also the element of rape. The basic difference between to action is the vaginal penetration which is only regulated in the article of rape. For the consideration is that when obscene act is formulated as a separate article and the criminal penalty is lower than rape, in the case where a defendant is not proven to have committed rape, due to considerations that do not give justice to women, such as the absence of vaginal penetration, will be charged with the obscenity article. This will give an advantage for the perpetrator, as the penalty for obscene act is lower than that of rape. Meanwhile, women as victims have been harmed by sexual violence conducted by the perpetrators. Furthermore, other articles such as incest and marital rape, which in this case the authors interpreted as coercion of sexual intercourse in an inappropriate marriage, such as when the wife is in childbirth and during menstruation and sexual harassment, which are also categories of sexual violence, have not been regulated in the Criminal Code.
In its development, sexual violence essentially is the prohibition of any act that attacks, intimidates, and other actions related to one's body and one's sexual desire and/or reproductive function, by force, due to imbalances in power relations and/or gender relations that result or can result in suffering or misery, not only physically and psychologically but also sexually, which causes economic, social, cultural and or political harm, either directly or indirectly using social media or without using social media. One of the most important things that need to be examined in the concept of sexual violence is also the element of "imbalance power relations and/or gender relations" which is not included in the Criminal Code. Basically, gender violence is caused by an imbalance or inequality of power in society which has various forms. In addition, gender analysis is important in understanding sexual violence. Through gender analysis, it is learned how the behavior, experiences, status and limitations experienced by men and women. Gender analysis can also reflect on the causes of sexual violence through social, economic, political and other studies.

Through gender analysis it can be explained that the occurrence of sexual violence is due to the power relationship between the perpetrator and the victim which is not always marked by the threat of violence, but is due to the imbalance of the position of the perpetrator and the victim. According to Meyer, as quoted by Sri Kurniasih, there are three aspects that need to be considered in defining sexual harassment, namely the behavioral aspect, the situational aspect and the legality aspect. The situational aspect states that sexual harassment can be done anywhere, and under certain conditions. In the certain conditions, it indicates a situation where the victim is not equal to the perpetrator, or is in a state of distress, is under threat even though there is no violence or threat of violence. This situation is a form of power relation between the perpetrator and the victim. Humanization of human life in law starts from the field of ethics. It is based on the existence of humans as individuals, so that all forms of discrimination are contrary to ethical obligations. The protection of rights is an ethical obligation of every human being as a form of respect for human existence.

4 Conclusion

It is concluded that the formulation of sexual violence contained in the Criminal Code has not accommodated the protection of women. The important thing to do is to reformulate the forms/dimensions of sexual violence in the Draft of Criminal Code based on the perspective of protecting women's human rights and extend the meaning of more progressive sexual violence. In addition, in the Draft of Criminal Code, it is necessary to contain a formulation of gender-based violence.

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References


Implications of Blended Learning for Learning Innovation During and After the Covid-19 Pandemic

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Abstract. In primary school education, the learning process which is usually done face-to-face between teachers and students in the classroom is now being replaced by an online system to implement social distance. The impact of the Covid-19 pandemic requires educators to be able to innovate in creating a learning process from a face-to-face learning process that is difficult to implement at this time. The purpose of this study was to determine the implications of blended learning during the pandemic. The object of this research is students and teachers. This research is a qualitative descriptive study. Data collection techniques using observation and interviews. Structured interviews are conducted with a list of interview questions that will be developed related literature. The results of this study indicate the achievement of student learning completeness during the learning of blended learning, student activities, student and teacher responses to the implementation of blended learning.

Keywords: Blended learning, learning innovation, covid-19

1 Introduction

The Minister of Education and Culture of the Republic of Indonesia issued Circular Number 4 of 2020 concerning Implementation of Education Policies in an Emergency for the Spread of COVID, in this Circular it was explained that the learning process is carried out at home through online / distance learning to provide meaningful learning experiences for students. Learning at home can be focused on life skills education, among others, regarding the Covid-19 pandemic. The implementation of appropriate learning strategies during the Covid-19 pandemic is to combine interesting learning methods or models, appropriate learning media and learning resources, and involve students in active learning to make it easier for teachers to achieve student learning goals. Teachers are required to be able to design learning strategies so that students can focus on implementing learning in school so that learning becomes meaningful. Problems with learning problems in the classroom such as boredom, not understanding the material provided, or students having fun playing on their own can be anticipated if teachers are creative in developing their learning strategies [1].

Becoming a professional teacher is a necessity that must be realized. It is appropriate as a teacher who lives in this digital age to add skills in the field of technology and be able to adapt to the times [2]. So many teachers are professional but do not have good pedagogical skills. Pedagogical abilities include the ability to organize educational learning, utilize information and communication technology for the benefit of learning and facilitate the development of the potential of students to actualize their various potentials. Therefore, the need for the ability of
teachers to combine various learning sources, use of appropriate methods and mastery of the material is absolutely necessary [3].

During the Covid 19 pandemic, learning carried out in elementary schools also used online / distance learning through parental guidance. With online learning students have the flexibility to study time, can study anytime and anywhere. Teachers are required to choose a learning model that encourages each student to be actively involved in learning activities which are their learning experiences [4]. Selection of learning models used in class can affect mastery of the material being taught and student learning outcomes. The learning model carried out is by implementing blended learning or direct learning collaboration with e-learning based learning tools which aims to eliminate student boredom and improve student learning outcomes.

Some of the problems found in the online learning process during the Covid-19 pandemic, namely 1) there are still teachers who have difficulty managing learning that is focused on curriculum achievement. 2) there are still parents who have difficulty assisting children to learn. 3) limited facilities and infrastructure that can be used in online learning (online). 4) The feeling of saturation of children with online learning (online).

The blended learning model is a learning activity that combines face-to-face and online activities [5]. In its application, this learning reduces direct learning in class, the purpose of using blended learning can be formulated as follows: (1) helping students to develop better in the learning process according to their learning styles and learning preferences; (2) provide practical-realistic opportunities for teachers and students to learn independently, be useful and continue to develop and (3) increase scheduling flexibility for students, by combining the best aspects of face-to-face and online learning. Blended learning is to make students more active and independent in learning. The advantages of the blended learning model are that it can be used to convey learning material wherever and whenever, learning occurs online and offline which complement each other, learning becomes effective and efficient, increases accessibility, and learning becomes flexible and not rigid [6]. The blended learning model with the help of the google classroom application is used as a tool that functions to smoothen the teaching and learning activities of the Acehnese oral tradition material [7]. Thus, face-to-face learning in class can be collaborated with online learning using internet media, called Blended Learning. Blended Learning is a combination of the advantages of learning that is done face-to-face and virtually [8].

Research also states that the blended learning model can increase student enthusiasm in learning so as to improve student learning outcomes. Research also states that the blended learning model makes students feel more satisfied when compared to only using conventional learning models [9]. Realizing the problems that students can experience in learning during the Covid-19 pandemic, the teacher always makes efforts to provide the best service. Blanded learning is one of the best solutions during the 19th pandemic in creating better education services. Despite the facts in the field there are still schools that have not been able to adapt to more modern learning. This is presumably due to the difficulty in managing learning that combines online and offline learning (blended learning). However, researchers feel this problem is very important to be investigated to determine the achievement of blended learning learning in elementary schools. Based on these problems and previous studies, the author tries to make a study entitled "The implications of Blanded Learning on learning innovation during covid - 19".
2 Method

This type of research is descriptive. Descriptive research is research conducted with the aim of systematically describing the facts and characteristics of the object under study accurately. This study describes the implementation of blended learning in elementary schools. The approach used in this study is a qualitative approach. The qualitative approach is carried out based on the data and facts found in the field and the research methods used to examine the conditions of natural objects, the task of the researcher as a key instrument.

Most of the data collected are qualitative data and the analysis technique uses qualitative techniques. This technique was chosen by researchers to produce qualitative data, namely data that cannot be categorized statistically. In the use of qualitative analysis, interpreting what was found and drawing final conclusions using logic or systematic reasoning. The qualitative analysis used is an interactive analysis model, which is an analysis model that requires three components in the form of data reduction, data presentation, and conclusion / verification.

This research was conducted in the elementary school in Baubau city, the researcher chose 5 schools to study. This school was chosen because it already has complete learning facilities with smooth and fast internet network facilities, making it easier for the teaching and learning process to use blended learning. The school has never implemented a learning process using blended learning.

This research was carried out in 5 elementary schools totaling 100 people. The technique of selecting research subjects was carried out using purposive sampling type, in which the subject was specifically selected based on the research objectives. In addition, the technique of selecting research subjects is also based on several considerations, such as limited time and energy so that it is not possible to take large numbers of subjects. The data collection technique was carried out to see the activities of students during the learning process using blended learning carried out with documentation, observation, and interviews. Observations and interviews were carried out by 5 people, namely each class teacher who was sampled in the study during the learning process. Each observer observes and documents student activities from the beginning to the end of the lesson.

3 Result and discussion

The learning model developed in this study is the Blended Rotation learning model with the Station Rotation type. The development procedure includes:

- Preliminary Study & Needs Analysis This activity begins with a search for references / literature regarding the results of research on the application of Blended Learning in elementary schools.
- Material Analysis Material analysis was carried out by looking at the curriculum applied in elementary schools.
- Indicator analysis was carried out to formulate objectives to be achieved in this study.
- The assessment was carried out to see the level of success of implementing blended learning in elementary schools.

Based on research data on the implications of blended learning in Baubau city elementary schools, the results obtained:
3.1 Completeness of learning

Based on the results of the survey conducted, it was obtained data showing that the learning completeness of elementary school students in Baubau city had increased. Of the 5 schools in the Betoambari District of Baubau City, 100 samples were observed, there were 86 students who had an average score above the minimum completeness criteria, while the 16 students observed had an average score below the minimum completeness criteria. Based on the results of observations made, the researcher saw the value of student learning outcomes given by the teacher from the 100 samples studied by looking at the results of teacher recapitulation, the highest score obtained by students was 100 and the lowest score obtained by students was 46. Learning blended learning was successful, classical completeness > 75%. Completeness of learning outcomes is in the very good category, this is in accordance with the completeness standard, namely completeness between 80% -100% is in the very good category and 66% - 79% is in the good category.

Blended learning requires students to be more independent in following the learning process, because students have the flexibility to obtain information and consult among fellow students and teachers outside the classroom. However, students who take blended learning with low independence will feel overwhelmed by the assignments given online. So that the advantages of blended learning such as learning flexibility, self-autonomy, and collaborative learning with peers and teachers through video do not occur in students with low independence. This results in students learning completeness to be low and not optimal.

3.2 Student activities

In measuring the achievement of blended learning learning, researchers distributed questionnaires to measure student activity during the learning process. Measurement of student activity during the learning process is carried out using observation sheets. The researcher distributed the observation sheet to 5 class teachers who were also observers. The results of these observations can be seen in Table 1.

<table>
<thead>
<tr>
<th>No</th>
<th>School name</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A</td>
<td>86 %</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>82%</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>90 %</td>
</tr>
<tr>
<td>4</td>
<td>D</td>
<td>83 %</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>92%</td>
</tr>
</tbody>
</table>

Based on the Table 1, the researcher obtained the results of student activities during the learning process. The results of these student activities have different percentage of activity data. Based on the results of observations, school A has a percentage of 86%, school B has a percentage of 82%, school C has a percentage of 90%, school D has a percentage of 83% and school E has a percentage of 92%. Looking at the data obtained by researchers by comparing several schools, the results of student activity during the learning process are good but not perfect. Based on the percentage obtained, there are several aspects that need to be improved, for example there are still students who have a slow response when the teacher gives assignments during the learning process and is slow to respond to the motivation given by the teacher.
3.3 Student responses

Based on the questionnaire that has been distributed to students on blended learning learning, the percentage of student responses to the first statement was obtained, namely 70% who strongly agreed and 30% agreed. This is because blended learning is being applied for the first time. Student responses about learning with blended learning are more enjoyable because the material can be accessed using smartphones, the percentage of students who choose to strongly agree is 75% and 25% disagree. Student responses to the use of time in completing assignments or discussing material in blended learning are more flexible, 40% disagree and 60% agree. The responses of students were more daring to express opinions or ask questions in learning using blended learning, as many as 60% chose to agree and 40% chose to disagree.

3.4 Teacher's response

Based on the results of a survey conducted by researchers by giving a questionnaire to the teacher. Some of the teachers' responses regarding blended learning are 1). Blended learning makes students more enthusiastic and interested in taking part in learning, because students are very happy and enthusiastic when invited to learn and can provide additional guidance to students through e-learning courses outside of class hours. This shows that the teacher considers blended learning as a positive innovation to be applied in the learning process. 2). Blended learning is very well applied in elementary schools because blended learning will simplify the learning process and increase the intensity of communication between students and teachers.

The results of the percentage of teacher responses indicate that the application of blended learning is very good and increases the enthusiasm and independence of students in learning. The two teachers strongly agree with the online discussion statement giving opportunities for students who are less brave to ask questions in class to submit questions or problems through the e-learning course, this shows that the teacher really understands the character of the students.

4 Conclusion

Based on the results of the research that has been done, the following conclusions can be drawn. First, the average student learning completeness through the application of the blended learning model increases. The application of the blende learning model requires students to be more independent in following the learning process, but students who have low learning independence will feel burdened by the assignments given online. Second, student activities in participating in learning using the high blended learning model, however, there are still students who are still slow to respond to orders given by the teacher. Third, there are still respondents who do not agree with the application of the blended learning model due to various problems including inadequate supporting facilities. Fourth, the teacher's response shows that the application of blended learning is very good and increases the enthusiasm and independence of students in learning.
Acknowledgment

On this occasion the researchers would like to express their deepest gratitude to the leaders of the Buton Muhammadiyah University who have provided assistance so that this research can be carried out. The author also expresses his deepest gratitude to all those who have helped in the implementation of this research and hopefully this research can be a reference for other researchers.

References

Application of Think Pairs Share-Based Learning Model to Increase Critical Thinking Skill

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Abstract. The objectives of the study is to achieve the learning process of speaking skills by developing a think pair share-based learning model, one of which is to improve the critical thinking skills of junior high school students. The design of this speaking model development is by adapting Borg and Gall's theory. They said in the theory of development of a Think Pair Share-based speaking learning model to improve the critical thinking of junior high school students. It is about learning language; how to speak, read and to respond correctly by developing a think pair share-based learning model. And the results of expert validation obtained the results and were categorized as valid. In terms of practicality, the model applied to the speaking learning process is in a good category. The result of the study states that it is raise to 3.19. as the validator says in the final assessment which contains models it means valid. Based on the criteria of validity and practicality, the model developed is feasible to be used as an alternative to developing speaking learning to increase students' critical thinking skills so as to produce more focused speaking skills and produce quality thinking. Therefore Learning language must focus in what to say, think and react by experience, therefore the more error someone does, the more perfect someone perform.

Keywords: Speaking, think pairs share, critical thinking

1 Introduction

The think-pair-share learning model is a cooperative learning model that emphasizes student cooperation which consists of three stages, namely thinking, pairing, sharing [1]. Through think pair share students can develop social skills (pairing) and positive needs (sharing) so that it is expected to form a characterized educational process. In think-pair-share type, it gives students time to think and respond as well as help each other, so that student participation is more optimal [1]. In Think-pair-share learning, students provide opportunities for students to work individually or in groups to build self-confidence so that it will reduce and even eliminate the lack of self-confidence, discouragement, and fear that students often experience during learning [2].

Cooperative learning is learning that departs from constructivism theory. Cooperative learning is carried out by forming small groups whose members are heterogeneous to work in a team to solve problems or do something to achieve the goals to be achieved [3]. Cooperative learning is learning that consciously and deliberately creates loving interactions between students [4], [2]. They will of course need each other and work together to complete the assignment given by the teacher. Cooperative learning began to be introduced by Slavin. [1] explains, “in cooperative learning methods, students work together in four members teams to
master material initially presented by the teacher. In the cooperative learning method, students sit together in groups of members to master the material presented by the teacher.

Cooperative learning is a learning activity in groups to work together to help one another, construct concepts, solve problems, or inquire. In cooperative learning, each group is built up of heterogeneous students (ability, gender, character), there are control and facilitation, and they ask for responsibility for group results in the form of reports or presentations. The basic principles behind cooperative learning, Group tasks are designed to be suitable for group work, positive interdependence is built in cooperation is necessary for students to succeed, attention and class time are given to interpersonal/cooperative skill building, participants learn together in small (2-5 member) groups, students are individually accountable for learning and participation, the instructors' role changes from being the "sage on the stage" to the "guide on the side" [5].

The steps in cooperative learning are described by [6], namely, the teacher conveys goals and motivates students, presents information, organizes students into study groups, guides study groups, and works, evaluates, gives awards. Language skills have four components that must be mastered by students in learning languages, namely listening, speaking, reading, and writing. Speaking is a language skill that develops in a child's life, which is only followed by listening, and during that time the ability to speak or speak is learned. Talking is of course closely related to the development of vocabulary obtained by the child through listening and reading activities [7]. Brown said that role and function of languages are integrated with the subject of study. He claimed that language is used for communication devices, the language used speaking community [8].

The scholar argues that the purpose of speaking is to communicate. In order to convey something that the language user wants to communicate, he must be able to evaluate the effect of the communication on the listener and know the principles that underlie all conversation situations, both in general and individually [9]. Critical thinking skills are also needed in the learning process to speak. Krulik [10] argues that critical thinking includes thinking that tests, questions, connects, evaluates all aspects that exist in a situation or a problem. Students can also process some pictures, audio, or visual to think critically [11], [12], [13] the symbols of the social discourse [14]. For example, when someone is reading a script or listening to an expression or explanation, he tries to understand and tries to find or detect things some special and important things. The others said that there is a unique personal style and speech function in communication [15][16].

According to Desmita, [17] arguing that critical thinking is understanding some problems in depth, keeping the mind open to a variety of different approaches and perspectives, not simply trusting information that comes from various sources (oral or written), and think reflective and evaluative. Meanwhile, [18] critical thinking is actually a thought process that occurs in a person and aims to make reasonable decisions about something that can be believed to be true and what will be done later. By developing the Think Pair Share learning model, it is hoped that it can develop students' abilities in improving speaking skills, through stages and materials that are in accordance with the characteristics of students and the material being developed. Therefore, critical thinking also learn from the error in grammar, semantic and pronunciation [19].
2 Method

The research method in this study uses research and development developed by Borg and Gall [20][21]. The stages in the development of this model are adapted to ten steps of research and development. The subjects of this study were junior high school students in Purworejo. Data analysis used descriptive statistics by presenting the results of data analysis in the form of percentages and graphs of research results.

3 Result and discussion

Based on the results at the stage trial phase or this extensive trial was carried out to determine the ability of students to think critically in learning to speak with the TPS learning model. The results of the implementation show an increase compared to the previous stage.

From the validation results in general it is said that the learning model developed is in the good category with an average score of 3.19 and is suitable for use in teaching Indonesian spoken material. After the learning process can run according to the model developed, then an evaluation is carried out to measure learning achievement. Evaluation is carried out using tests, performance appraisal Data on the results of the competency assessment at the limited trial stage are presented in the Table 1.

<table>
<thead>
<tr>
<th>Meeting</th>
<th>Cognitive</th>
<th>Psychomotor</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>80</td>
<td>78</td>
<td>79</td>
</tr>
</tbody>
</table>

On the results of practicality or implementation of learning with the TPS model to improve students' critical thinking skills at the limited trial stage presented in Table 2.

<table>
<thead>
<tr>
<th>No</th>
<th>Learning Activities</th>
<th>Skor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction and motivation</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>Phase Think</td>
<td>2.5</td>
</tr>
<tr>
<td>3</td>
<td>Phase Pair</td>
<td>2.7</td>
</tr>
<tr>
<td>4</td>
<td>Phase Share</td>
<td>2.7</td>
</tr>
<tr>
<td>5</td>
<td>Evaluation</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Average</td>
<td>2.78</td>
</tr>
</tbody>
</table>

From the results of the validators' assessment which contains content validation, and about models, the result is 3.19 or valid category. These components include: Suitability of material according to KI, The learning model is in accordance with the competence (urgency, continuity, and daily use), The learning model can be taught to students easily and is in accordance with its function, The learning model can make it easier to explain the concept of material, The learning model presented is clear and logical in accordance with the syntax, The use of language is in accordance with the rules of the Indonesian language, Use of unambiguous language, Do not use negative language or sentences, Compatibility of the instrument with the material, The evaluation includes indicators of achievement, Difficulty level on each instrument, The level of
effectiveness of the instrument on speaking mastery. In the activity of measuring speaking skills, it was found that the average score was in a good category. The description of learning outcomes in applying the Think pair share model to improve critical thinking skills is presented in the Figure 1.

![Average results of speaking skills assessment at the broad trial stage](image1)

**Fig. 1.** Average results of speaking skills assessment at the broad trial stage

The results of practicality or implementation of learning with the TPS model to improve students' critical thinking skills at the broad trial stage presented in Figure 2.

![The implementation of the TPS model in improving students' critical thinking skills](image2)

**Fig. 2.** The implementation of the TPS model in improving students' critical thinking skills

From the table and graph above, it is known that the practicality or feasibility of the TPS learning model in speaking skills to improve students' critical thinking skills is in a good category.
4 Conclusion

Based on the results and discussion of research on the think pair share model to improve critical thinking skills, it can be concluded that cooperative learning is an interactive activity that will provide learners to form synergies that benefit all members. Communication between members will have an effect on the group. Communication skills are also a long process because every learner cannot be expected to become a reliable communicator immediately [5]. This process is a very beneficial process because it will foster the mental and emotional development of the students. Started with the implementation of the think pair share learning model, it is known that the practicality and responses of students in learning are interesting or good so that they can provide the motivation that has an impact on increasing students' critical thinking skills. Learning language must focus in what to say, think and react by experience, therefore the more error someone does, the more perfect someone perform [19].

Acknowledgment

We would like to express my big thanks to Allah Subhanahu Wa Ta’ala, The Almighty. We can finish our article soon. Our best friends in University, motivates and burns our spirit. My beloved friend as researchers who give us support financially also aided us in holding and focusing the research and we know so many new things we are thankful to them. Secondly, we would like to thank friends and participants who give much help to us in completing this project in the limited time.

References


Migrant Students Dilemma: Place Attachment as Role Mediator Between Residential Satisfaction, Pro-Environmental Behavior and Intention to Move

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Psychology, University of Brawijaya, Indonesia¹,²,³

Abstract. A boarding house or a rent house is an exciting phenomenon study with students as the main character. When individuals feel attached to a place and feel satisfied in theory, they will take care of the area and do not want to move. This research aimed to determine the role of residential satisfaction on pro-environmental behavior and Intention to move for migrant students and know the position of place attachment as the mediator between residential roles satisfaction with pro-environmental behavior Intention to move. This research used a quantitative study, and the sampling technique used accidental sampling, total data of 401 migrant students. The research instrument used was the residential satisfaction scale, place attachment scale, new ecological paradigm (NEP) scale, and Intention to scale. The analysis technique used is multiple regression analysis. The result of this study indicates that residential satisfaction has a positive role in placing attachment. The Place attachment does not have a significant

Keywords: Intention to move, migrant students, pro-environmental behavior, place attachment, residential satisfaction

1 Introduction

Merantau has become the Indonesian people's living culture; ethnic groups in Indonesia with a culture of migration include the Batak, Bugis, Javanese, Madurese, and Minangkabau tribes [1],[2]. Merantau can define individuals who go from their place of origin to other places to live or seek experiences. Jatmiko [3] explains that wandering can also happen to individuals who will continue their higher education education. He also added that not a few individuals who have graduated from high school choose to continue their higher education outside their home regions. Individual immigrants will experience conditions that are different from their home regions; from these differences, individual migrants, in this case, students, must adjust to their new environment. explains that wandering can also happen to individuals who will continue their higher education education. He also added that not a few individuals who have graduated from high school choose to continue their higher education outside their home regions. Individual immigrants will experience conditions that are different from their home regions; from these differences, individual migrants, in this case, students, must adjust to their new environment [4].

Utomo [5] explained that migrant students would choose a temporary place to live, namely boarding or renting a house. A boarding house or often called a boarding house, is a rented room (booked) for a certain period. Generally, room bookings are made for one year and have a
function as a temporary residence. Hajar et al [6] found that seven factors influence migrant students choosing boarding houses, including environmental factors, rental prices, facilities, references, location, security, and services. The same thing conveyed by Badri, who found several factors that influenced migrant students in choosing a boarding house, namely the distance from the boarding house, the influence of friends, economic factors, the cleanliness of the boarding house, and a comfortable place.

Some of the factors above sometimes trigger student behavior to move places of residence. Intention to move based on a desire to find a better place and dissatisfaction with the current environment [7]. Research related to satisfaction with a house or home of residence has two types of functions: a tool to predict behavior or Intention to stay or move from the current place and as a criterion for assessing the quality of housing or occupancy [8].

According to Hartono and Gianawati [9], boarding houses have a positive function, namely a place as a temporary home, a place to study, and a place to rest that should be cared for and cared for by its residents. Students' concerns and concerns for the environment has often based on cultural tendencies. They are identical to the "concern-behavior gap," namely psychological factors that hinder student behavior adjustment despite their concern [12]. Students have often been identifying as persons with higher education. Meyer's [10] surveyed 559 undergraduate art students and found that students spend more time on campus, the more knowledge they gain. This will then lead individuals to carry out pro-environmental behaviors such as recycling or saving on paper expenses.

Pro-environmental behavior (PEB) is defining as behavior that impacts environmental sustainability [10]. The opinion of Homburg and Stolberg [11] states that Pro-environmental behavior is a problem solver in the environment. Vicente-molina et al. [13] argue that Pro-environmental behavior can influence attitudes, motivation, and effectiveness. They also explained that some 60% of research respondents felt that a lack of knowledge limited Pro-environmental behavior. In line with this research, Kocsis explains that knowledge and attitudes are necessary because they can potentially impact behavior formation. Behavior formation can occur when there is an interaction between an individual and their environment [14].

The existence of unique opportunities to participate in an activity together in their environment will increase interest in the background. Each place will provide a particular experience [15]. Place attachment is a feature that connects a business with individuals [16]. According to Scannell and Gifford [17], place attachment occurs due to emotional and cognitive ties to a place.

Kusumowidagdo, Sachari, and Widodo [15] argue that place attachment can occur when individuals occupy a place for an extended period. It can indicate that the individual has satisfaction with the place he lives. Pride in occupying a home or what can be said as residential satisfaction can be defined as individuals who have a quality of life and well-being in their environment [18].

Ytrehus and Pacione [20] argue that residential satisfaction is an individual assessment of their residential environment's quality. Widya et al [8] later strengthened this statement and explained that the evaluation was subjective. Each individual has his or her views based on differences in culture, socio-economy, and expectations. Therefore, the assessment has determined how their residence can meet their needs to achieve the desired things.

Based on statements from Widya et al [8], residential satisfaction can influence positive or negative attitudes and behaviors. Pro-environmental behavior is a positive attitude, and actions can be generated [21]. Widya et al [8] also argue that place attachment can have used as a mediating variable in determining desired behavior, such as pro-environmental behavior. Amerigo and Aragones [7] explain that individuals who are satisfied with the environment in
which they live will tend to have consistent behavior in caring for their surrounding environment.

Based on the description above, students with higher education should have a more pro-environmental behavior. However, this cannot always happen because of other factors, one of which is cultural differences. Overseas students often have cultural values that are different from the local culture, and cultural differences can be factors that hinder individuals from caring about the environment they live in now. In this case, culture is not the single factor that can influence pro-environmental behavior. There is satisfaction with overseas students' residence, which can play a role in overseas students' attachment to the place they live. This attachment then allows the formation of behavior related to the environment, which is pro-environmental behavior.

Similar research has been conducting but only measures three variables without measuring pro-environment, and the research subjects are residents who live in certain areas. In the current study, adding one variable, namely pro-environment and changing the subject into a student, follows the field's recent phenomena. Where students today are one of the agents of change for the environment in the future.

Thus, the researcher is interested in proving the role of residential satisfaction, Intention to move towards pro-environmental behavior among overseas students who live in boarding houses by making place attachment as the mediator of the two variables. This research expects to consider the parties concerned, in this case, the boarding house manager or the surrounding community, to pay more attention to overseas students the satisfaction and attachments to generate pro-environmental behavior.

The hypotheses presented in this study are:
- H1: there is a role of residential satisfaction on place attachment
- H2: there is a role of place attachment to pro-environmental behavior
- H3: there is a role of residential satisfaction towards pro-environmental behavior
- H4: there is a role of place attachment to Intention to move

2 Method

This research is a quantitative study using correlational research methods. The population in this study was students in Indonesia. This study uses a sample that is a small part of some predetermined characteristics in the population. The number of respondents was determined with the help of software G * power 3.5.1, and obtained N = 107; however, the researcher did not limit the number of respondents that the software had determined, this has done so that the researcher received broader data and anticipated the possibility of invalid data.

This study uses an accidental sampling technique where the researcher accidentally finds an individual and has criteria that match the research respondents.

The criteria for the subjects in this study are:
- Active students
- Overseas students
- Living in a boarding house or contract house

The research instrument has been used for measurement to produce accurate quantitative data with a scale. There are four instruments used; the researcher adapts and tests the tools used.
2.1 Residential satisfaction instruments

Researchers used an adaptation of the residential satisfaction scale prepared by Widya, Kusuma, and Lubis (2019), totaling 74 items divided into two aspects, namely physical and non-physical elements. The number for each component, namely the physical component of 48 things and the non-physical part of the 26 items. The statements on items are arranged on a Liker scale of 1-5 for 1 "very dissatisfied" and 5 for "very satisfied."

2.2 Place attachment instrument

Researchers used an adaptation of the place attachment scale compiled by Harmon, Zinn, and Gleason [16], totaling 21 items divided into three dimensions: place dependence, place identity, and place-based affective. The articles on things are arranged on a Likert scale of 1-5 for 1 "very unsuitable" and 5 for "very suitable."

2.3 Pro-environmental behavior instruments

Researchers used the adaptation results of the Felia scale (2018), which is the NEP scale based on Dunlap's [22] theory, which consists of 15 items which have divided into five dimensions, namely limit to growth, anti-anthropocentrism, the balance of nature, antie-xemptionalism, and eco-crisis. Statements on items are arranged on a Liker scale 1-5 for 1 "strongly disagree" and 5 for "strongly agree."

2.4 Intention to move the instrument

Researchers used the theoretical concept presented by Morris et al. [23]. Two dimensions exist in this theory, namely mismatch, where this is a reaction when individuals cannot meet their needs in the current environment. The second dimension is the opportunities elsewhere, where this is a reaction when there is a conflict that cannot be resolved and leads to finding a new place to live. This scale was adapted by Widya et al. 2019, with a reliability of 0.90. The data collection process is carried out online by creating a Google form and disseminating it through various social media to access Indonesian students. Four hundred fifteen data have been obtaining from the scale distribution process, but 401 scales have proceeded further.

3 Result and Discussion

Multiple regression is used to test whether there is a role in each of the measured variables. From the respondent's data results, as many as 401 students came from several regions spread throughout Indonesia and represented all provinces. This type of education belongs to the university and Polytechnic levels.

<table>
<thead>
<tr>
<th>Type of Data</th>
<th>Category</th>
<th>Amount</th>
<th>Percentage</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Female</td>
<td>108</td>
<td>26.93</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>293</td>
<td>73.07</td>
<td></td>
</tr>
</tbody>
</table>
From Table 1, it is found that the research subjects were male as much as 73.97% and female subjects as much as 26.93%. Most of them were in the age range of 21-30 years, as much as 53.12%. Most of the respondents came from the S1 education level, as much as 88.28%. The type of residence is a room for rent or boarding house at 83.04%.

Most of the research subjects came from Brawijaya University, and the rest came from other educational institutions in Indonesia.

3.1 Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>p</th>
<th>Explanation</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential Satisfaction - Place Attachment</td>
<td>0.217</td>
<td>0.000</td>
<td>Significant and play a positive role</td>
<td>There is no role for Place Attachment as a mediator</td>
</tr>
<tr>
<td>Environmental behavior</td>
<td>-0.001</td>
<td>0.838</td>
<td>Insignificant and plays a negative role</td>
<td></td>
</tr>
<tr>
<td>Residential Satisfaction - Residential Satisfaction intention to move</td>
<td>0.217</td>
<td>0.000</td>
<td>Significant and play a positive role</td>
<td>There is a role of Place Attachment as a mediator (full mediation)</td>
</tr>
</tbody>
</table>

From Table 2, the relationship between residential satisfaction and place attachment as a mediator does not have a significant role. Meanwhile, there is a considerable role in variable residential satisfaction with the place attachment as a mediator on the Intention to move.

3.2 Discussion
Based on the results of hypothesis testing, residential satisfaction has a positive role in place attachment. The analysis result means that residential satisfaction has a part of 30.1% on place attachments. These results followed by research description results, which show that 51.3% or as many as 206 respondents are in the high category on the residential satisfaction variable. As much as 70.3% or 282 respondents are in the high sort on the place attachment variable.

Tabernero, Briones, and Cuadrado [24] supported this result, who found a positive relationship between residential satisfaction and place attachment. The results are in line with the definition and application of place attachments in overseas students. Place attachment is a dimension that connects residence with overseas students [16]. Place attachments may occur if overseas students occupy a place for a long time [15]. This allows an indication that the overseas students are satisfied with the place they are living. In the research of Tabernero, Briones, and Cuadrado [24] it was also found that the length of time a student stays has a positive effect on place attachment. The positive impact happens because place attachments are dynamic, so they develop from time to time. At the same time, residential satisfaction is more static because it is more determined by the residence's physical characteristics.

Hypothesis test results also show that place attachment does not have a significant effect on Pro-environmental behavior. Place attachment only has a 0.15% role in Pro-environmental behavior. This supported the research description results, which show 74.5% or as many as 299 respondents to the Pro-environmental behavior variable are in the medium category. In comparison, the place attachment variable is 70.3%, or 282 respondents are in the high sort. The results of this hypothesis testing are contrary to the theoretical basis and the effects of previous studies.

Several factors can cause the absence of a significant role between place attachment and pro-environmental behavior. One aspect is researchers' modification on the pro-environmental behavior variable scale (new ecological paradigm scale). Researchers made modifications because the new environmental paradigm scale used in a broad ecological context and items from measuring instruments tend to lead to a pro-environmental attitude [6].

The results of further hypothesis testing found that residential satisfaction does not significantly affect pro-environmental behavior. Residential satisfaction only has a role of 0.01% with pro-environmental action. The results of this hypothesis test also show that residential satisfaction has a negative role in pro-environmental behavior. This result means that the higher the residential student satisfaction, the lower the pro-environmental action. This result contradicts Amerigo and Aragones [7] statement, which states that if an individual has satisfaction with his/her place of residence, the individual will tend to care for the surrounding environment consistently.

Ajzen [25] stated in Theory of Planned Behavior (TPB) that several variables form a behavior intention which in this study are pro-environmental behavior, including (a) attitudes towards behavior, (b) subjective norms, and (c) behavior control. Like this statement, Duerrden and Witt [14] say that knowledge and attitudes toward behavior can influence behavioral intentions. If you reflect on the research hypothesis test results, the positive role that the residential satisfaction variable has on place attachment does not affect pro-environmental behavior among overseas students.

This can happen due to several factors. The first factor, respondents in the study, do not have the right attitude towards the environment where they live overseas. Second, respondents lack knowledge in protecting the environment they live in overseas. Third, respondents have different norms from their place of origin to their place of residence overseas. Fourth, respondents are less able to control their behavior towards the place where they live overseas. Fifth, because the place where they live is temporary, it is possible for respondents not to have
a sense of belonging to their place of residence not to have the Intention to carry out pro-environmental behavior. Scannell and Gifford [17] stated research, which found that physical and emotional connections to the place of residence have a relationship with action that protects the place where they live, which in this case is pro-environmental behavior. This study also found that the attachment that residents have to their place of residence is natural, not because of culture or population problems with their place of residence.

It is different from the results of hypothesis testing involving the Intention To Move variable. It found that the place attachment has a significant role or 16.3% of the Intention To Move variable. However, the part that place attachments have for overseas students towards Intention To Move is negative. Like this, residential satisfaction also has a significant role or 7.4% of the Intention To Move variable but negatively. This indicates that if overseas students have a high Intention To Move, it will decrease due to residential satisfaction and place attachments overseas students own when viewed from research description results, show that 54.8% or as many as 220 respondents are in the Intention To Move variable's medium category.

Pacione [20] explains that the attitude of living in one place or moving to another place is a decision that occurs when residents have or do not have a living environment that matches their expectations. The results of hypothesis testing in this study are similar to the effects of previous studies conducted by Zenker and Rütter [26], showing that occupancy satisfaction significantly affects occupants' attachment and directly reduces their Intention to move. In research conducted by Morris et al. [23], high occupancy satisfaction results tend to make changes or additions to their occupancy and reduce their Intention to move.

Limitations in this study include collecting data only through online distribution so that researchers cannot help respondents understand the research instruments' contents. The researcher did not translate the measuring device through the sound stages, and the researcher did not carry out a back-translation in translating the research measuring instrument. There is a limitation in the pro-environmental behavior measuring device (NEP scale) where 8 of the 15 items have failed; elimination of these items is due to their lack of reliability. Researchers modified the new environmental paradigm scale, which resulted in the composition of favorable and unfavorable items changing from the previous design. The New Ecological Paradigm scale is widely used in a broad ecological context. It tends to lead to pro-environmental attitudes rather than pro-environmental behavior, while in this study, it is in the context of the living environment. This study has limitations that tend to exist in the measuring instruments used. Interpretation of the research results must have carried out cautiously if subsequent studies also modify similar measuring instruments.

4 Conclusion

Residential satisfaction has a positive role in place attachments. Place attachment does not have a significant effect on pro-environmental behavior among overseas students. Residential satisfaction does not have a considerable role in pro-environmental behavior. The Intention to move variable found that place attachment has a significant role in the Intention to move variable even though it is negative. Likewise, residential satisfaction also has adversely affected the part of the variable Intention to move.
Acknowledgment

This research conducted with internal grants, and the researchers would like to thank the team and all research respondents who participated in this research.

References


Corona Makes Me a Procrastinator: Correlates Personality in Predicting Procrastination

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Abstract. The emergence of the coronavirus or covid-19 caused shocks throughout the world, both from a social, economic, and educational perspective. One way to avoid the spread of covid-19 was by implementing school for home. Procrastination can occur in students who underwent school at home because the control of the learning environment and teacher control was lacking. For this reason, the role of personality supported in predicting whether students will procrastinate during school for home. The purpose of this study was to determine the role of personality in procrastination. 174 respondents (40 men and 134 women) who were currently undergoing school at home were used in this study. The instruments used were the Uni Procrastination Scale and the Big Five Inventory. Data analysis used multiple regression. Respondents who admitted to procrastination after undergoing school at home were only M = 10.6. The results of the data analysis did not support the research hypothesis, which showed that there was no personality role for procrastination. the role of social support, especially parents, student motivation, and self-regulated learning to consider when students underwent school for home.

Keywords: Corona, procrastination, personality

1 Introduction

Since the Covid-19 pandemic, the whole world had been affected. To avoid the spread of Covid-19, all kinds of methods were used, either by locking down, Large-Scale Social Restrictions (PSBB), or Local-Scale Social Restrictions. The government also urged the public to carry out physical distancing, both in offices, government agencies, and others. In the world of education, especially at this time, there was still a school for home (SFH) where students learned online. Students who did online learning were found to experience psychological problems in the form of stress, anxiety to mild depression [4]. If it was in weekly times. Procrastination resulted in negative emotions [1], psychological distress [3] dan low psychological well-being [13].

Procrastination caused by internal factors, one of the determining factors is personality. Many studies showed that personality predicted personality [6][15]. Kim et al [7] studied 178 students whose results found that personality extraversion and neuroticism were associated with procrastination. Sarirah and Rahayu [14] found the opposite where personality extraversion, agreeableness, and conscientiousness were associated with procrastination.

Personality related to anxiety and depression when facing Covid-19 pandemic. where people with extraversion, agreeableness, and openness tend to have low anxiety and depression, whereas people who had neurotic personalities tend to be prone to anxiety and depression [11].
In learning, the use of different learning strategies depended on the personality they had where people with Extraversion and Neuroticism personalities tend to use strategies in learning, while different results were seen in personality Conscientiousness, Openness to Experience, and Agreeableness [8]. Personality was related to hardiness where neurotic people had low hardiness scores, while other personalities had high hardiness scores [17].

2 Method

2.1 Research design

174 respondents (40 men and 134 women) were used in the study. The selected respondents are students who were currently underwent school for home. Researchers distributed questionnaires in the form of google. form and distributed to student groups and on social media.

2.2 Instruments

2.2.1 Uni procrastination scale (UPS)

Setiawan [16] developed a procrastination scale called the Uni Procrastination Scale (UPS). This scale was based on the Irrational Procrastination Scale (IPS) and the Procrastination Cognitive Inventory (PCI). There were 5 items on this scale using a Likert scale. Examples of items on the "I'm a procrastinator, I can't get to my goal" scale.

2.2.2 Big five inventory (BFI)

This study used the BFI scale that had been adapted by Sarirah dan Rahayu [14]. There were five personality factors, namely extraversion, agreeableness, conscientiousness, neuroticism, openness to experience. Big Five Personality (BFI) consisted of 44 items using a Likert scale.

2.3 Data analysis technique

To test the hypothesis in this study, researchers used multiple regression data analysis techniques, because in this study, personality variables couldn’t be measured singly. There were 5 personality factors (extraversion, agreeableness, conscientiousness, neuroticism, openness to experience) that were associated with procrastination. Data analysis used JASP version 0.13.1 software.

3 Result and Discussion

3.1 Results

Researchers distributed online questionnaires and got 174 subjects. Following were the results of the description of the variables X (personality) and Y (procrastination).
Table 1. Variable Description

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procrastination</td>
<td>10.615</td>
<td>2.111</td>
</tr>
<tr>
<td>Extraversion</td>
<td>18.103</td>
<td>3.409</td>
</tr>
<tr>
<td>Agreeableness</td>
<td>24.534</td>
<td>2.866</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>23.494</td>
<td>3.425</td>
</tr>
<tr>
<td>Neuroticism</td>
<td>23.034</td>
<td>3.695</td>
</tr>
<tr>
<td>Openness to Experience</td>
<td>28.213</td>
<td>3.289</td>
</tr>
</tbody>
</table>

Based on Table 1, it showed that the majority of subjects had openness to experience with a mean of 28.213 and the lowest was extraversion with a mean of 18.103. the majority of subjects also admitted to procrastination with a mean of 10.615.

Table 2. Hypothesis Test

<table>
<thead>
<tr>
<th>Variable</th>
<th>R</th>
<th>F</th>
<th>RMSE</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procrastination</td>
<td>.109</td>
<td>.404</td>
<td>2.130</td>
<td>.845</td>
</tr>
<tr>
<td>*Personality</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3. Results of Multiple Regression

<table>
<thead>
<tr>
<th>Variable</th>
<th>SE</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extraversion</td>
<td>.053</td>
<td>-.663</td>
<td>.508</td>
</tr>
<tr>
<td>Agreeableness</td>
<td>.061</td>
<td>-.271</td>
<td>.787</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>.052</td>
<td>-1.126</td>
<td>.262</td>
</tr>
<tr>
<td>Neuroticism</td>
<td>.050</td>
<td>-.883</td>
<td>.379</td>
</tr>
<tr>
<td>Openness to Experience</td>
<td>.052</td>
<td>.471</td>
<td>.638</td>
</tr>
</tbody>
</table>

Based on Table 2 and Table 3, it was found that personality variables, both extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience were unable to predict procrastination with F.404 (p> .05).

3.2 Discussion

The results of this study found that there was no role for personality towards procrastination in students who underwent school for home. The results of this study differ from the results of previous studies where personality can predict procrastination [6][7][14][15].

Zhou's study [18] that distinguished between active and passive procrastination found that extraversion was positively associated with active procrastination, whereas agreeableness was negatively associated with active procrastination. Lai [15] supported this finding where personality of any type did not predict procrastination. Rejecting the hypothesis in this study, the researcher assumed that very dramatic changes, both environmental, social, especially the learning model during the Covid-19 pandemic, which must be implemented online, causes all students to procrastinate regardless of personality aspects.

Social support was needed in pandemic conditions, how parents monitored their children when studying online at home. Social support and high self-efficacy prevented students from procrastinating their schoolwork [19]. Sari and Fakhruddiana [12] emphasized these findings,
where the results of her research found that social support and internal locus of control were needed for someone to avoid procrastination.

Low motivation and self-esteem were predicted to increase procrastination. Someone who had a task-avoiding behavior was often seen procrastinating [2]. A procrastinator also had poor sleep quality [9]. Having less hours of sleep because of spending more time on behaviors that were pleasing to him than doing tasks. This online learning where the lack of control from the teacher during learning caused students to procrastinate. Hudaifah [5] strengthening the assumptions of researchers where in the results of his research he found that the self-regulated learning (SRL) affected students SFH SRL had a negative correlation with procrastination [10].

4 Conclusion

There is no role for personality (extraversion, agreeableness, conscientiousness, neuroticism, openness to experience) on procrastination. Suggestions for future researchers are expected to consider other variables, such as demographics, motivation, especially self-regulated learning of students who are running school at home.

References


The Marketing Strategies of HNI HPAI (International Halal Network - Herba Penawar Alwahida Indonesia) as an Effort to Survive the Covid-19 Pandemic

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Abstract. The Covid-19 Pandemic has demanded companies to determine an appropriate marketing strategy with changes in business interaction between companies and customers without holding direct events as it is forbidden- however, the companies can still be productive to provide the latest information to their customers. Marketing strategy during pandemic that refers to the marketing mix of the 7P concepts (product, price, place, promotion, people or participant, process, and physical evidence). This study aims to analyze the marketing strategies being implemented by HNI HPAI, as well as to identify and analyze the company’s internal and external factors using a SWOT analysis, with the results as follows: the analysis showed that during the pandemic, HNI HPAI has been focusing on establishing several technological instruments that are able to encourage and improve the company’s performance in terms of service and convenience in accordance with the five (5) pillars of company, while the results of the SWOT matrix showed that the usefulness and the development of HNI HPAI has been implemented to participate in contributing to the national economic development by cooperating with small and medium entrepreneurs. The process of marketing strategy and services were carried out with the principles of honesty, sincerity, fairness and trust.

Keywords: Marketing strategy, Survive, Covid-19 pandemic

1 Introduction

The Covid-19 Pandemic period requires every company to determine the most appropriate strategy to remain productive and to provide a lot of current information to its customers. It is expected to encourage the company to create and determine the most appropriate strategy, including a marketing strategy using technology in interactions and providing company's information to its customers during the pandemic, with a marketing strategy that refers to the concept of marketing mix of the 7P (product, price, place, promotion, person or participant, process, physical evidence). This research aims to analyze the marketing strategies implemented by HNI HPAI (Halal Network International - Herba Penawar Alwahida Indonesia) and to analyze the company's internal and external factors using SWOT analysis [1]. During this pandemic, the focus is on building several technological instruments that are able to encourage and improve company's performance in terms of services which refers to the five (5) PILLARS of the company.
2 Method

This research used qualitative methods by collecting the interview data, observation and documentation [2] related to the current conditions, the Covid-19 Pandemic. The observations were carried out with direct involvement of the researchers and live streaming on HNI social media channels; Youtube, HNI Official, Facebook, and Instagram that was also directly carried out by HNI Lampung during the research. The analyzing Marketing strategies was done with reference to the 7P concepts (product, price, place, promotion, people or participant, process, physical evidence). The following step was done by the researchers by utilizing all information into the categories of internal and external factors, namely compiling the strength and weakness factors as well as opportunities and threats, then compiling the IFAS matrix (internal strategic factor analysis summary) and the EFAS matrix (external strategic factor analysis summary), finally the SWOT analysis graph was done to determine the complete and accurate position and strategy.

3 Results and discussion

In determining the marketing strategy, the company must first look at the market situation and conditions as well as market conditions and assess its position in the market [3]. In this section, some primary data from the interviews will be presented in a marketing strategy that refers to the marketing mix of the 7P concept (product, price, place, promotion, people or participant, process, physical evidence). In its application, HNI has been implementing this 7P marketing strategy into the 5 pillars of the company, namely products, stock agents (price, place, promotion, process), Support System (Process), Technology (Process), Management Integrity (people, physical evidence,) expanding the market and increasing the capacity and knowledge and information of the company to consumers during the Covid-19 pandemic, HNI is very concerned about the five (5) pillars strategies that are focused on building the strength of support (Information Technology) that are qualified, informative, easily accessible, safe, and available to everyone. These strategies show in Figure 1.

![Fig. 1. 5 Pillars (P.A.S.T.I)](image_url)

The next step is the preparation of IFAS as a picture of the company's internal conditions, which are described as strengths and weaknesses that show the values and the rating of each factor (Table 1). Finally, it is the time to prepare EFAS matrix as a mapping of the external
conditions of HNI through opportunity and threat factors. This matrix describes the conditions of the business opportunity that you have (Table 2).

<table>
<thead>
<tr>
<th>External Factor</th>
<th>Values</th>
<th>Rating</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. With several countries in Europe, HNI offers a collaboration plan</td>
<td>0.2</td>
<td>4</td>
<td>0.8</td>
</tr>
<tr>
<td>2. There is a loyalty between agents and consumers to halal products and marketing systems</td>
<td>0.15</td>
<td>3</td>
<td>0.45</td>
</tr>
<tr>
<td>3. The products being sold are safe for infants to the elders</td>
<td>0.15</td>
<td>3</td>
<td>0.45</td>
</tr>
<tr>
<td>4. Most of the products being sold are products of daily necessity of the community</td>
<td>0.2</td>
<td>4</td>
<td>0.8</td>
</tr>
</tbody>
</table>

Sub Total: 0.7 2.5

<table>
<thead>
<tr>
<th>Threats Factor</th>
<th>Values</th>
<th>Rating</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. There is a high competition between similar businesses</td>
<td>0.1</td>
<td>2</td>
<td>0.2</td>
</tr>
<tr>
<td>2. There is uncertainty on consumers’ behavior in deciding and determining their product necessity</td>
<td>0.1</td>
<td>2</td>
<td>0.2</td>
</tr>
<tr>
<td>3. The role of the retail distribution line for AC, DC, SC has not yet been maximized</td>
<td>0.1</td>
<td>2</td>
<td>0.2</td>
</tr>
</tbody>
</table>

Sub Total: 0.3 0.6

Total: 1 3.1

Based on the results of the calculation, the internal strength factor possessed by HNI is greater than the weakness factor, which is 1.96, where the number 1.96 is the gain from the total strength of 2.54 with a total weakness of 0.58, and for external factors the opportunity of HNI HPAI is greater than the threat factor. The number 1.9 is the gain from the total opportunity of 2.5 with a total threat of 0.6. This calculation can be used to draw an appropriate marketing strategy formulation.
Figure 2 is a matrix that is compiled using the strengths, weaknesses, opportunities and threats variables identified in the internal and external strategic factors. This SWOT matrix illustrates how opportunities and threats from the company's external environment can be adjusted to the strengths and weaknesses of the company. The SWOT matrix model analysis used the data obtained from the internal and the external strategy factor of HNI HPAI.

**Table 2. SWOT Matrix of IFAS**

<table>
<thead>
<tr>
<th>IFAS</th>
<th>Strength (S)</th>
<th>Weakness (W)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. The products being sold are of the best quality with complete MUI licenses and certificates.</td>
<td>1. There are agents and stock centers that do not comply with the code of ethics</td>
</tr>
<tr>
<td></td>
<td>2. The price of the product being sold is competitive and able to compete</td>
<td>2. HNI was formed in 2012, it has not reached 10 years</td>
</tr>
<tr>
<td></td>
<td>3. The location of BC, AC and Agent stock are accessible.</td>
<td>3. The discrepancy between the company's goals and the attitude of the agents in achieving the goals formulated by the company.</td>
</tr>
<tr>
<td></td>
<td>4. Promotional activities are well planned with the use of all aspects</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. There is a strong bond between agents and team</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6. There is a Market Place to support the needs of UMKM products.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7. There is a good reputation and positive image of the company towards agents and customers.</td>
<td></td>
</tr>
</tbody>
</table>
1. The expanding affiliate program in collaboration with world-class Muslim entrepreneurs has provided wide opportunities, resulted in HNI is offered a collaboration plan with several countries in Europe.

2. There is a loyalty between agents and consumers to halal products and marketing systems

3. The products being sold are safe for infants and the elders

4. Most of the products being sold are products of daily necessity of the community

5. There is a good relationship between the management, leaders and Partners / AB

6. The products being sold are appropriate for all ages, from infants to the elderly

---

**Threat (T)**

1. There is a high competition between HNI and other similar businesses

2. There is uncertainty on consumers' behavior in deciding and determining where to shop

3. The business partners were less cooperative in completing their obligations

---

**St Strategy**

1. Improving the quality of the products being sold, maintaining competitive prices, satisfying service, developing the promotions both from the media and the information, creating a presentation technique as attractive as possible in order to be recalled in the hearts of the consumers.

2. Approaching the consumers through activities at certain events and conducting sales promotions to attract the consumers to make purchases

3. Increasing a better communication to the business partners, improving supervisory functions and reducing uncooperative partners.

---

**SO Strategy**

1. Maintaining and improving the quality of products - the products continue to foster and add affiliates so that they can forge more cooperation, especially with the aim of expanding in the international world

2. Maintaining the loyalty of partners and end customers

3. Strengthening relationships with partners and members as well as general customers to maintain a good relationship.

4. HNI has made some new breakthroughs in terms of knowledge, partner development and promotion of its products

---

**WO Strategy**

1. Administering vision and mission, socializing the agency code of ethics from the leader to the partners (AB) through training to reach the same goals and compliance with the agency code of ethics simultaneously at the concept and application level to increase community trust and benefit

---

**WT Strategy**

MBC Swalayan continues to foster and improve the quality of internal and external relationships in order to build a good synergy, so it can outperform any competition in similar businesses

---

**Fig. 3. SWOT Analysis of HNI HPAI**
Figure 3 shows that a company's performance can be determined by a combination of internal and external factors. The combination of these two factors is shown in the diagram of the SWOT analysis results as follows:

- **SO strategy (Supporting Aggressive strategy),** namely by: maintaining product quality as evidenced by the completeness of permits and halal certificates of the MUI. Strengthening the relationships with partners in order to create a good relationship. Increasing agent loyalty and solidity with team leaders. HNI continues to innovate, especially during the Covid-19 period, which continues to upgrade its technology which will provide satisfactory services that can be accessed from any place, automatically in real-time setting.

- **WO strategy (Supporting Turn-Around Strategy),** namely: HNI always pays close attention to the distribution channels, gives rewards to agents who excel their performances and have high loyalty to the company, conducts training and consultations both offline and online in order to maintain and improve the skills and knowledge of agents.

- **ST Strategy (Supporting Diversification Strategy),** namely: Innovating its technology so that it is easy to be accessed. Increasing and expanding the marketing network by holding certain promotions for SC, DC, AC, on events held by HNI. HNI is expected to improve the knowledge on the code of ethics to its agents in providing information related to company ethics to its agents, and its distribution channels, so that they always follow the code of ethics of HNI HPAI agency, as well as to minimize any non-compliance occurs in the field.

- **WT Strategy (Supporting Defensive Strategy),** namely: HNI continues to improve the quality of the company's internal and external relations in order to outperform competition with similar companies. The maintained quality of internal and external relations improves their integrity, enabling HNI to dominate the competition

### 4 Conclusion

Based on the results of the above research, it can be concluded that in planning and carrying out marketing strategies during the Covid-19 period, HNI is very concerned with the 7P marketing mix strategy through the implementation of the five (5) pillars of the company, namely: Product quality, distribution channels, support system in order to succeed in the marketing plan, technology which builds a structure as a centralized information service, and management integrity to increase professionalism and grow public trust. Based on the company's internal and external analysis, it can be concluded that the Growth Strategy is the key determination and the systematic setting of HNI marketing strategy. HNI is able to maintain and improve the quality of its products in order for making repeat purchases by the costumers as well as HNI agents. Finally, parts of the SWOT matrix results can be concluded by several developments with the considerations of internal and external factors.

### References

An Analysis of Women-Centered Care Needs in Midwifery Care

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Abstract. An ideal health care service recommend a women-centered care approach to midwifery services. A concept which is. The study was conducted to explore the midwives and patients perspectives on women center care. A phenomenology qualitative design (n=12) were purposively drawn at midwifery care unit of one private hospital in Yogyakarta Province, Republic of Indonesia. The result explain that there are three themes representing midwives and women’s perspectives on women center care in midwifery services. These were midwifery services capacity, empowerment, and challenge. Within these themes, sub themes arose that represent key elements of women center care. These were patient’s rights and liabilities, excellent service, the number of health care provider, health insurance, instruments, education, awareness, and training.

Keywords: Women-centered care, Midwifery care

1 Introduction

Health care services which focused on physical condition means override some factors related the definition of health. Quality of life, personality, social, even stages of life are needed to have more attention in order to improve the quality of health care services [1]. Furthermore, health professional education also introduces the skill of developing social relationship in the curriculum intend to be able to do professional integrated assessment to their client. Ideally, the knowledge that given by the lecturer at the education institution can be practiced by the student at the clinical setting as well. It means that a good collaboration is needed between health education institution and health care services [2].

An innovation of health care services related to holistic care services especially women’s health became an issue regarding to improving the quality of women’s health. A midwife be expected to adjust midwifery philosophy of midwifery care specifically women center care, a concept that a woman is entitled to serve in a holistic manner which is cover social, emotional, spiritual, physical, and cultural in every stage of women’s life cycle [3].

Recently, health policy increasingly focused on individual service based on individual needs. The concept of women-centered care has been used as a framework in various policy documents and standards related to midwifery services, especially in the United Kingdom and Australia [4]. Moreover, the concept of women-centered care consist of several main components i.e. health care services respond to the unique needs of women and respect their ethnic, cultural, social, and family background; the woman should be involved in arranging midwifery care plans for their needs by health care professional who their known; the woman
should be provided with sufficient information for their midwifery care plans; women’s psychological and physical needs must be understood and their autonomy is respected.

A survey conducted in Australia found that women and midwives providing women-centered care as a center of the way to do their responsibilities. The model ensuring that women have control over to the midwifery care for them, focus on their needs, and accept the different approach is a part of women-centered care model. Being flexible in parenting and family support roles is a component of this model as well.

Maputle [5] explain that the concept of women-centered care consists of (1) caring focus on individual, (2) sharing responsibility, reciprocity, good communication, and acceptance, (3) empowerment, (4) sharing information, interdependence, and collaboration, (5) decision making involvement, (6) autonomy, (7) respect for culture, ethnicity, social, and family background, (8) holistic care, (9) serenity and safety.

Currently, innovation on women’s health care services evolve on aesthetic services in Indonesia. This is appealing to support the need for biopsychosocial services for women, not only focus on physical but also concern to another aspects of health. Understanding and the need of women-centered care concept are important to be assessed as a basis for determining the women’s health care services improvement.

2 Method

The study was conducted to explore women center care from midwives and patients’ perspectives. A phenomenology qualitative design was chosen as a representative design in order to achieve the objective of the study. 12 participants were recruited including 7 midwives and 5 patients by using purposive sample method. The data was collected by focus group discussion and interview by the researcher. The data was recorded, transcribed and checked by the researcher.

Ethical approval of the study was granted by the health research ethics committees of ‘Aisyiyah Yogyakarta University. The purpose of the study was further explained to all prospective participants, including potential benefits and harms, and they were asked if they willing to take a part. All participants being interviewed provided informed consent prior to commencing the interview.

Interviews were audio recorded, anonymized to ensure confidentiality and transcribed verbatim and checked by the research team for accuracy. Thematic analysis was used incorporating a framework analysis approach.

3 Results and Discussion

The result of qualitative data analysis following focus group discussion and interviews found three major themes which is represent midwives and women’s perspectives on women-centered care. The three main themes were: midwifery services capacity, empowerment, and challenge for women-centered care. Table 1 show at Thematic Framework.
3.1 Midwifery services capacity

This theme describes the finding from the data that the midwives tried to give information for all patient’s rights and liabilities. The midwife provide information related to the step that they have to conduct to do as midwifery care based on the assessment and the diagnoses of their cases. Moreover, all the things that the patient have to do and accept during the caring process is informed as well. It reflects how midwife try to give the services using the philosophy of women-centered model. Women’s involvement is being practiced during the process.

Patient in maternity ward as participant in this study confirm that they feel more comfortable and satisfied when they get more information from the midwife related their condition and anything that they have to do and accept during the services. For instance, patient involvement was identified as a part of the way to give an excellent service. The number of strategies were identified to serve with an excellent service including helping the woman to making a decision based on their condition, giving more information, respecting their reaction, and understanding their background. This midwife notes the response from the patient when they give an adequate information to the woman and their family:

“They look more satisfied and concern with their condition as well as I can see that they pay more respect to us. Sometimes, I can see that the woman fell familiar with the midwife even we know each other at the first meet” (Midwife-1).

This participant reflects the way how the midwife provides an excellent service in order to improve patient satisfying level. This midwife mentions an identifying the need of the woman as apart to support the patient’s right:

“I understand that every patient really wants to get the best service from us. That’s the reason for me to help them assess their needs and help them how to making a decision” (Midwife-3).

The feeling of satisfying was described by some mothers as participant in this study. They identified that respect and good service meant being helping the mother to be recognized as an individual with various experience and background:

“The midwife really helps me; they explain anything that I have to do. Even I said that this is not my first experience being pregnant mother, they stand on me and try to assess more information about me and help me to making the best decision for me and my baby” (Woman-1).

“I don’t think that the midwife will provide the best service for me because I use national health coverage and don’t pay to the hospital directly” (Woman-4).

“And like that I don’t feel that the midwife tries to do something based on what they want to do, they give us what we need based on their interview to us” (Women-5).
The theme midwifery service capacity for women-centered care analysis in this study describes how the midwives’ respects on women’s right and liabilities and how the women’s feel on the services. Both are components of women-centered care concept in midwifery services.

3.2 Empowerment

Theme of empowerment in women-centered care illustrates how empowerment as a soul of women-centered care concept. However, this study found that some reasons to support women’s empowerment are unpredictable and possible to do related to some weakness of the services. The subtheme of empowerment in this study mention two big issues related health care service in Indonesia, that are the number of health care provider and the regulation of national health coverage.

The sub theme, number of health care provider, describes how the resources in maternity ward are faced with some difficulties to provide best performance in their work. The number of midwives is compared with the amount of work to be done was their limitation to do their best performance. The midwives try to improve women and family empowerment regarding their limitation number. The midwives in this study describe that they have to do a lot of work with high number of patient otherwise the number of midwives who work is limited:

“We work for labor room and postpartum ward. There are 2 to 3 midwives for every work shift. Sometimes we ask the family of the patient to help them to do some services. We think that this is the way how to do family empowerment, but I feel like a bad midwife for them, because I need to do another work and ask them to do my work indeed” (Midwife-1).

“sometimes we did not pay attention to the patient at the postpartum ward because we busy with the patient at labor room, especially when we have an emergency case in labor room or when we have full bed patient in labor room” (Midwife-2).

“I ever ask the family members to observe the woman’s contraction during the labor process because all beds are full with the patient at that time. I’m not sure, this is the correct way to involve the family members or this is the bad thing that I have done” (Midwife-5).

The illustration related to the number of the health care provider is mentioned by the women as well:

“mmm...., actually I ever thought that the midwife are busy with their work, so... they ask my husband to help me when I would like to go the restroom” (Women-2).

“my mom said pity of them (the midwife) with their work. There are only 3 and we are more than 10. How they work with their hands?” (Woman-4).

“They asked my husband to observe my uterine contraction even we said that we didn’t have any experience before, but I think this is something normal to do because impossible to ask them stand by me all the time ” (Women-5).

The theme of empowerment also mentions about the national health insurance. This is mention by the patient:

“I thought that they didn’t help me and ask my husband to do because we use National Health Insurance. So, they gave different service for us. However, I’m so surprise because finally I know that my husband can help me very well even we didn’t have any experience before” (Woman-2).

“We don’t pay to the hospital; we use the National Health Coverage. So, I think that this is normal to get different services than others” (Woman-4).
The theme of empowerment in this study describes two points, i.e. National Health Insurance and the number of health care provider. Both are issues which making the value of empowerment become having different point of view when we have a look from different side.

3.3 Challenge

This theme illustrates how the concept of women-centered care is a challenge. This theme also describes how women-centered care needs some improvement in the management system of the hospital. This theme comprises four sub themes; that are, education, awareness, instrument, and training. The sub themes in this theme is linked each other. Participants in this study mention that lack of understanding about the concept bringing to difficulties to provide a holistic care midwifery care.

The sub theme, education, describes how limited the services are when the midwife could not give how to do holistic care which cover physical, psychological, social, and cultural condition of the patient. Participants explain how the need to improve their knowledge and skill:

“Mostly, we are on Diploma 3 of Midwifery, there is only 1 midwife who graduate from master degree. We don’t have any chance to study. Sometimes, I fell lazy to continue my study at the university to get higher degree” (Midwife-1).

“Women-centered care?? What it is… I didn’t get any information about this during my study at Diploma 3” (Midwife-2).

“Yaass… I ever heard about women-centered care before. I think that we already serve the patient using these concept, but not sure actually” (Midwife-4).

An issue related awareness is described by the participants:

“Tired, many things to do, how we can give a holistic care” (Midwife-5).

“I want to an excellent service actually, but there are many things that I have to do during the working time. So, as long as we can observe and caring the patient to help them being healthy mother, we serve them in a right way” (Midwife-2).

These theme describes how the midwife doing an assessment and midwifery care based on habit or routine activity that they do based on the cases:

“yaa…, we use the form in medical record to assess the patient and then we make the midwifery care plans as usual and based on the condition of the patient that we get from the assessment process” (Midwife-1).

“We give the midwifery care based on Standard of Procedure that we have in this hospital. Maybe when we have the instrument that make our work getting easier it’s will help” (Midwife-3).

Training is a sub theme which is explain in this theme by the participant as a solution for the limitation of chance to continue their study to the next level:

“I think training will be help us to update our knowledge and skill” (Midwife-1).

“Maybe training…..so we can learn something new and not too stupid. hahaha...” (Midwife-2)

3.4 Discussion

This study explores the concept of women-centered care from the midwives and women’s perspectives. The analysis indicates themes that women-centered care is a concept which is needs in order to improve the quality of midwifery services and enhance women’s quality of health. The findings of this study illustrate how women-centered care could potentially be
achieved, but some barriers were describing how the midwife and patient difficult to achieve the concept.

World Health Organization mention that spirituality is an important dimension in a quality of life. How spiritual well-being of the patient could be assessed to help the midwife to giving a holistic care for the women [1]. It is important because spiritual well-being is connected to the ability to coping with their problem and helping the recovery process [6]. The concept of spiritual well-being is explained in Table 2.

<table>
<thead>
<tr>
<th>Measurement Domain</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Religiosity</td>
<td>Strength of belief, prayer and worship practices, intrinsic versus extrinsic</td>
</tr>
<tr>
<td>Spiritual/religious coping and support</td>
<td>Response to stress in terms of spiritual language, attitudes, practices, and sources of spiritual support</td>
</tr>
<tr>
<td>Spiritual well-being</td>
<td>Spiritual state or level of spiritual distress as a dimension of quality of life</td>
</tr>
<tr>
<td>Spiritual needs</td>
<td>Conversation, prayer, ritual; over what spiritual issues?</td>
</tr>
</tbody>
</table>

The result of the study shows that continuing a study to the next degree among the midwives is a problem which is lead to the next problem to understand and practice the concept of women-centered care midwifery care. The roadmap of human resources development is indicated become a solution to improve the quality of services for women. The midwife in Diploma 3 level of education means that they doing midwifery care because they know how to do the caring process as mentioned in KKNI level of competency qualification. They need become a professional midwife which is standard in bachelor degree and continuing to the profession level in accordance with the Indonesian midwifery constitution.

From the women point of view, the concept of women-centered care is a concept which they need to achieve a maximum level of women’s health. The understanding of National Health Coverage is needed to avoid misunderstanding between health care provider, patient, and family member.

4 Conclusion

The results of this study indicates that understanding, awareness, policy, planning, and development is needed to conduct in order to enhance the service quality and women’s health. Women-centered care is a concept which help women and midwife to understand each other easier and better. A good relationship between the health care provider and the patient during the maternity process is the most commonly expressed expectations from both side, the health care provider and the patient doing so.

References


The Effect of Group Counseling Services on Self-Confidence in Learning English of Primary School Students in Covid-19 Pandemic

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Abstract. The Covid-19 situation has a major impact on all elements of life, including education. The learning process changes, from face-to-face in class to virtual face-to-face. In addition, the approach taken has also changed. Similar to learning English in elementary schools, the application of the group counseling approach is to maintain and increase the self-confidence of elementary school students in learning English during the Covid-19 pandemic situation so that it stays true. To find out the perspective both of students and parents about the group counseling approach to increase students' confidence in learning English during the Covid-19. This research used qualitative methodology within a case study design. This research shows that the students have positive attitudes towards the use of a group counseling approach to increase students' confidence in learning English during the Covid-19 pandemic. The implication of this research is to provide student's perception into the use of group counseling approach to increase students' confidence in learning English during the Covid-19 pandemic in the primary education setting, the findings of this study offer several recommendations for Indonesian policymakers and future researchers.

Keywords: Group counseling, self-confident, english learning

1 Introduction

Humans are social creatures that cannot live alone, develop from prenatal, infancy, early childhood, middle and, late childhood, adolescence, early adulthood, middle adulthood, and late adulthood. Childhood is a phase where children experience changes in their emotions, bodies, interests, behavior patterns, self-confidence, and are also full of problems related to themselves, related to God and, the social environment.

Individual belief in themselves, both children and adults arise because they have self-confidence. Self-confidence is part of the development of one's personality as determinants of one's attitude and behavior as a determinant of their success in learning. Lauster revealed that the nature of self-confidence is not a trait inherited from life experience, and can be taught and instilled through education so that certain efforts can be made to form and increase self-confidence. By developing through the learning process in their environment.
Gufron [3] defines that group counseling is a type of group activity that provides counseling services to two or more counseleees to deal with adaptation problems and developmental problems. The process of assistance provided by the counselor (group leader) to several counseleees (group members) through a group atmosphere to help them both prevent and problem-solving so that they can change their behavior to achieve optimal development in the areas of personal, social, academic life, and their careers. High self-confidence will develop a strong personality in a person, reduce stress and, are not easily affected by threatening situations. In contrast to individuals with low self-efficacy will tend and do not want to try or like cooperation in difficult situations and high levels of compatibility.

Each student has different self-confidence, likewise in learning English we will meet children with high self-confidence and some who have low self-confidence. Especially with the learning model that changed from its usual condition after the covid-19 situation attack. Pranoto [11] defines that the attitude of a person who shows that he is not confident, among others, every time he does something important and is full of challenges, is often faced with an attitude of doubt, uncertainty, anxiety, lack of initiative, tends to avoid, easily discouraged, does not dare to appear in front of a crowd or on camera. Their insecurities will always feel inadequate and are afraid of making mistakes. This makes them not know what abilities or potentials they have and will further bury their abilities or potentials.

We will see weaknesses as a natural thing that is owned by every individual because confident individuals will turn their weaknesses into motivation to develop their strengths and will not provide these weaknesses. Self-confidence is the key to self-motivation, you cannot live your life well without self-confidence. Every individual will need confidence every day in various ways, including students in following the learning process m. A good level of self-confidence facilitates decision-making and paves the way for making friends, building relationships, and helping individuals maintain success. Self-confidence is one aspect of personality that is very important in human life. Ersta [15] said that confident individuals feel confident in their abilities and have realistic expectations, even when their expectations are not met, they remain positive and can accept them.

Besides that, self-confidence can act without hesitation. So big is the function and role of self-confidence in individual life. Without a sense of self-confidence that is firmly planted in the individual's soul, pessimism and inferiority will easily dominate him. Without being equipped with solid self-confidence from an early age, the individual will grow into a weak person. Students who are not confident have a negative self-concept, lack confidence in their skills, this causes them to close themselves to their surroundings. Without self-confidence, students have a risk of failure or less than optimal in doing tasks as teenagers.

Increasing self-confidence here is growing students' confidence to develop their potential without shame and doubt. By providing group counseling so that students are more courageous in showing their abilities in front of their friends, and are not awkward in interacting with other people. Lack of self-confidence is detrimental to students not only through associating with low attitudes but through students considering their choices in different ways. Lack of confidence may require attention to help ensure that students' future choices do not need to be limited. The confidence condition of students is different, some are happy to tell stories, have discussions, but some are the opposite. This can be seen from the symptoms that appear among them, students hesitate when asked to present the results of the discussion in class.

This shows that the attitude of self-confidence in learning is low. Besides students are a little difficult when asked to interact with other students. Furthermore, when the discussion took place there were some students looked doubtful, afraid, and also embarrassed in expressing their opinions or responses in the group discussion. It is in this group discussion that they tend to be
silent and passive. From the problems encountered by the researchers above, researchers must increase the confidence of students.

2 Method

The method used is quantitative research because quantitative methods are called traditional methods after this method has been used for a long time so that it has become a traditional research method. This method is called the quantitative method because the research data is in the form of numbers and the analysis uses statistics. This research was carried out at SD Negeri 4 Katobengke by looking at things related to the problem under study.

The form of research used in this study is the pre-experimental design one group pre-test and post-test design because this study does not use a control group and this design has a pretest before it is given treatment. Thus, the treatment results can be found out more accurately. This research was conducted during the new normal covid-19 pandemic. Methods of data collection in this study using a questionnaire method/questionnaire, interview methods, and observation.

Based on the data collection method, a suitable data collection instrument to increase self-confidence is a questionnaire sheet. The questionnaire in this study was used to collect data on the responses or responses of students to group counseling of role discussion techniques in increasing students' self-confidence. The questionnaire is a data collection technique that is done by giving a set of questions or written statements to respondents to answer. The questionnaire can be a closed or open question/statement.

3 Result and Discussion

The implementation of this study used group counseling services to increase the confidence of students at SD Negeri 4 Katobengke. The aim of handling students who experience low self-esteem in English subjects before and after being given group counseling services. This research was conducted from June to July 2020, according to the schedule agreed upon with the research subject. The results of the researchers were obtained through the distribution of instruments that aim to obtain data on the profile/picture of students' self-confidence and at the same time with the basis of adjusting the content of group counseling services to increase students' confidence which was then tested to obtain effectiveness. The number of students in this study was 25 students, while in low criteria there were 18 students.

Group counseling services with discussion techniques were held 4 times in one classroom by implementing strict health protocols. The results of providing group counseling services are evaluated by doing a post-test, a post-test is carried out to determine the level of self-confidence of students after doing group counseling that has been given to students who experience low self-confidence. Comparison of the average value before and after group counseling services was provided based on the data obtained, the results of the study can be defined before treatment (pre-test) and after treatment (post-test).

In this group counseling activity, the group leader tries to build group dynamics where the group dynamics play a very important role in increasing the self-confidence of students. Because of inactive group dynamics, students are directly involved in solving problems faced by other members and themselves. The role of group leaders in building group dynamics in group counseling discussion techniques is to ask members to be able to work together and to show
concern for the needs of their members, group leaders provide clear instructions, direction, and
group counseling process, discussion techniques, and always supervise group members during
the process. Group meetings take place, group leaders encourage members to provoke self-
confidence so that the group counseling process runs smoothly.

3.1 Results

The pre-test was carried out to know the initial picture of the condition of self-confidence
in learning that was given the treatment. The pre-test was given to 18 class V students. Table 1
is the results of the pre-test conditions for students' self-confidence.

<table>
<thead>
<tr>
<th>No</th>
<th>Code</th>
<th>Pre-test</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AIF</td>
<td>42</td>
<td>Low</td>
</tr>
<tr>
<td>2</td>
<td>AA</td>
<td>40</td>
<td>Low</td>
</tr>
<tr>
<td>3</td>
<td>A</td>
<td>54</td>
<td>Low</td>
</tr>
<tr>
<td>4</td>
<td>BS</td>
<td>56</td>
<td>Low</td>
</tr>
<tr>
<td>5</td>
<td>DAP</td>
<td>52</td>
<td>Low</td>
</tr>
<tr>
<td>6</td>
<td>EMB</td>
<td>51</td>
<td>Low</td>
</tr>
<tr>
<td>7</td>
<td>FDS</td>
<td>49</td>
<td>Low</td>
</tr>
<tr>
<td>8</td>
<td>GSG</td>
<td>52</td>
<td>Low</td>
</tr>
<tr>
<td>9</td>
<td>MAR</td>
<td>50</td>
<td>Low</td>
</tr>
<tr>
<td>10</td>
<td>MDP</td>
<td>55</td>
<td>Low</td>
</tr>
<tr>
<td>11</td>
<td>MR</td>
<td>54</td>
<td>Low</td>
</tr>
<tr>
<td>12</td>
<td>MDA</td>
<td>37</td>
<td>Low</td>
</tr>
<tr>
<td>13</td>
<td>RMS</td>
<td>42</td>
<td>Low</td>
</tr>
<tr>
<td>14</td>
<td>SS</td>
<td>46</td>
<td>Low</td>
</tr>
<tr>
<td>15</td>
<td>SKN</td>
<td>55</td>
<td>Low</td>
</tr>
<tr>
<td>16</td>
<td>YN</td>
<td>50</td>
<td>Low</td>
</tr>
<tr>
<td>17</td>
<td>NFT</td>
<td>43</td>
<td>Low</td>
</tr>
<tr>
<td>18</td>
<td>MS</td>
<td>58</td>
<td>Low</td>
</tr>
</tbody>
</table>

After the group discussion was ended, the students were invited to fill in the learning
discipline instrument as a form of post-test. The posttest implementation at SD Negeri 4
Katobengke can be said to be smooth with the average student being able to provide information
about self-confidence after the discussion technique group counseling service with all
instrument items being filled according to the filing instructions and this activity is completed
on time. The following table are the results of the post-test conditions for students' self-
confidence.
Table 2. Post-test results of class V SD Negeri 4 Katobengke

<table>
<thead>
<tr>
<th>No</th>
<th>Code</th>
<th>Post-test</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AIF</td>
<td>72</td>
<td>Moderate</td>
</tr>
<tr>
<td>2</td>
<td>AA</td>
<td>80</td>
<td>Moderate</td>
</tr>
<tr>
<td>3</td>
<td>A</td>
<td>84</td>
<td>Moderate</td>
</tr>
<tr>
<td>4</td>
<td>BS</td>
<td>96</td>
<td>High</td>
</tr>
<tr>
<td>5</td>
<td>DAP</td>
<td>82</td>
<td>Moderate</td>
</tr>
<tr>
<td>6</td>
<td>EMB</td>
<td>81</td>
<td>Moderate</td>
</tr>
<tr>
<td>7</td>
<td>FDS</td>
<td>89</td>
<td>Moderate</td>
</tr>
<tr>
<td>8</td>
<td>GSG</td>
<td>92</td>
<td>High</td>
</tr>
<tr>
<td>9</td>
<td>MAR</td>
<td>90</td>
<td>High</td>
</tr>
<tr>
<td>10</td>
<td>MDP</td>
<td>95</td>
<td>High</td>
</tr>
<tr>
<td>11</td>
<td>MR</td>
<td>74</td>
<td>Moderate</td>
</tr>
<tr>
<td>12</td>
<td>MDA</td>
<td>87</td>
<td>Moderate</td>
</tr>
<tr>
<td>13</td>
<td>RMS</td>
<td>82</td>
<td>Moderate</td>
</tr>
<tr>
<td>14</td>
<td>SS</td>
<td>86</td>
<td>Moderate</td>
</tr>
<tr>
<td>15</td>
<td>SKN</td>
<td>85</td>
<td>Moderate</td>
</tr>
<tr>
<td>16</td>
<td>YN</td>
<td>90</td>
<td>High</td>
</tr>
<tr>
<td>17</td>
<td>NFT</td>
<td>93</td>
<td>High</td>
</tr>
<tr>
<td>18</td>
<td>MS</td>
<td>78</td>
<td>Moderate</td>
</tr>
</tbody>
</table>

Based on Table 2 above, that after being given group counseling service treatment there was an increase in group members' confidence, there were 12 students in moderate criteria and 6 students who were high criteria, which at the time before the treatment there were students who had low criteria in self-confidence.

3.2 Discussion

Based on the results of the study showed that there was an increase in the confidence of the students, indicating that there was an increase in the self-confidence of grade V students at SD Negeri 4 Katobengke after receiving group counseling services. The results of this study also showed that group counseling services were carried out in 6 meetings and were combined to distribute questionnaires as well, so the next step the author will discuss in-depth the confidence of class V students at SD Negeri 4 Katobengke. Before and after, group counseling services are provided that are linked to theory.

Before the existence of group counseling services (pre-test), students had an average self-confidence score of 49.22 or a low category, this showed that the students' self-confidence was still low and could still be improved. After the existence of group counseling services, students have an average self-confidence score of 85.33 in the high category. This identifies that there has been an increase in the self-confidence characteristics of students. It was proven after the group counseling service had an increased average score.

This shows that the presence of group counseling can increase positive self-confidence and reduce negative self-confidence, thus it can be concluded that students' self-confidence before and after receiving group counseling discussion techniques is different and has a significant increase. Group counseling services are effective in increasing students' self-confidence because in the implementation of group counseling activities students as group members will jointly create group dynamics that can be made appropriate to develop and increase self-confidence. Group members will have the same right to discuss a problem topic, also be able to train
students' abilities both the ability to dare to express opinions in forums and to train students to be trained to interact socially in groups.

Group counseling services are effective in increasing students' confidence. Because in the implementation of group counseling it does not aim to solve problems but also to solve problems and to develop personal character. Dinkmeyer and Murno mentioned three kinds of discussion objectives, namely: 1) to develop towards oneself, 2) to develop self-awareness, 3) to develop new views on human relationships. If that goal is realized, it can develop students' confidence. Therefore, self-confidence is needed by someone to be used as a reference for how someone lives and demands someone's needs. However, a person's self-confidence is not innate but is formed through the learning process from the time a person grows from childhood to adulthood.

The success of group counseling at SD Negeri 4 Katobengke is running smoothly as seen from the effectiveness of the members in following the group counseling process. With group counseling, it can help students to manifest themselves as whole human beings to reach the world and the hereafter. So that researchers feel it is appropriate to use it as a form of guidance and counseling services to be provided to students who have low self-confidence. Students who have group counseling activities can directly practice creating group dynamics, namely, practice speaking, responding, listening, and being considerate in a group atmosphere. Confidence in a person is not innate but is formed through the learning process from the time a person grows from childhood to adulthood.

Although group counseling can increase students' self-confidence, this study found several obstacles, at first, the group leader had difficulty building group member activeness because all group members still looked shy and hesitant and this was the first time they attended group counseling. However, this was resolved by group members with introductions and games. This introduction aims to make all group members know and be familiar with each other. In addition, games are also carried out to make the atmosphere more relaxed and comfortable so that it doesn't look stiff and group members feel happy. Also, this limitation is related to the time to carry out the process in the group counseling services carried out. the group counseling process runs smoothly for approximately 45 minutes in each meeting.

4 Conclusion

Group counseling services with influential discussion techniques to increase self-confidence in grade V SD Negeri 4 Katobengke for the 2019/2020 academic year. This is indicated by an increase in self-confidence scores in 18 students after being given treatment group counseling services with discussion techniques.

Acknowledgments

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References


[27] Sri marjati, upaya meningkatkan rasa percaya diri melalui konseling kelompok bagi siswa x ips 6 sma 2 bae kudus tahun pelajaran 2014/2015. jurnal konseling gujigat. vol. 1 no. 2 tahun 2015 ISSN : 2460-118.


Measuring a Crowdfunding Intention during Covid-19 Pandemic using Planned Behavior Approach

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Abstract. Since March to early October 2020 covid-19 (Corona Virus Disease) has caused global outbreaks by infecting 33,842,281 people and 1,010,634 deaths. Covid-19 has become a pandemic that has resulted in casualties and has had a multi-dimensional impact, even though, there are crowdfunding movements as a form of social care. This study aims to analyze what factors influence people’s intention in crowdfunding movement for solidarity in pandemic era using Planned Behavior Theory Data were obtained from 250 respondents who were samples of DKI Jakarta residents by purposive sampling using Google form and then processed using SPSS software with multiple regression models. The results of data processing show that the factors based on Planned Behavior, namely: attitudes, subjective norms and perceptions of behavior control simultaneously have a significant positive effect on the increasing intention of the Bekasi city community in the crowdfunding movement. The results of this study are expected to be able to encourage the government and social institutions to optimize the factors that encourage people’s intention to do crowdfunding as a form of solidarity with better management, not only incidental movement.

Keywords: Crowdfunding, pandemic, intention, behavior

1 Introduction

The development of the covid 19 case until October 2020 has made Indonesia the highest country in Asean whose citizens have been confirmed positive. DKI Jakarta is still the province that has the most reported cases of covid 19 but by being able to reduce the Fatality rate to 2.1%, East Java Province which ranks second has a higher and even the highest mortality rate, which is 7.2%. Central Java has 29,395 patients exposed to covid 19, but with the second Fatality rate after East Java, which is 5.4% [1].

Covid-19 has become a pandemic that has resulted in casualties and has had a multi-dimensional impact, even though, there are crowdfunding movements as a form of social care. In the broadest sense, solidarity refers to the unification or agreement of feelings or actions, particularly among individuals who share a common interest; or mutual support within a group [2][3]. The moment of the Covid 19 pandemic opened the eyes of both individuals and groups in solidarity because this disaster was experienced by all parties. The feeling of unity, creates action to support each other in order to survive this disaster.

Indonesia’s potential in terms of crowdfunding is proven by the awarding of the most generous country award, the World Happiness Report 2019 published by the United Nations (UN) and can be seen from some data that over the past 5 years they have been able to optimize
online fundraising. The trend of donations has increased significantly as collected by Kitabisa, Rumah Zakat, and Dompet Dhuafa has increased fourfold since March 2020. This rapid increase can be seen after the introduction of online fundraising technology. Kitabisa.com noted that 63% of people donated via mobile phones, more than 13 thousand donations came from Instagram, and more than 11% of people donated using go-pay [4][5].

Previous research has been conducted regarding the community's motivation in implementing crowdfunding [6]–[8], the use of the Crowdfunding Platform in fundraising [9]–[11]. This study seeks to make a difference with the use of Planning Behavior Theory in measuring people's intentions to channel solidarity through crowdfunding platforms during a pandemic. In addition to being a differentiator from other research related to the application of fundraising through a crowdfunding platform, the use of Planned Behavior Theory is expected to be able to prove the generosity of the Indonesian population and increase the research portfolio related to factors that cause people to still care about others even in difficult times.

We have previously researched the community's intention to do good deeds [12]–[16]. This research is expected to be able to provide direction on what factors are most dominant in influencing people's intentions in crowdfunding and optimizing other factors so as to increase fundraising. Hopefully with the Covid 19 pandemic, the community will get blessings with increased awareness and solidarity with others so that people can play an active role in the progress of the nation.

2 Method

This is a type of quantitative research; quantitative research can be defined as a research strategy that instills competence in data collection and analysis through the use of a deductive approach to the relationship between theory and research (testing of theory) [17]. This research uses a quantitative paradigm because it uses measurements of the variables to be studied in the form of numbers and to find out what form the relationship is. Sampling was conducted in this study using a non-probability sampling technique combined with a purposive sampling technique. Samples were drawn from those who make charitable contributions and are residents of Jakarta. Jakarta was chosen as the research location due to the diversity of its inhabitants and its status as Indonesia's capital city. The city of Jakarta is divided into five sections: North Jakarta, South Jakarta, West Jakarta, East Jakarta, and Central Jakarta. The 250 respondents in this study were divided into 50 groups of 50 in each of these categories.

This research uses primary data sources that are obtained directly from respondents through closed questionnaires. In this study, the dependent variable is the intention to conduct crowdfunding, denoted by the letter Y. In this study, the independent variables are attitudes, subjective norms, and perceptions of behavioral control, all of which are denoted by the letter X. The following equation describes these variables: \( a + b_1X_1 + b_2X_2 + b_3X_3 \), \( Y = a + b_1X_1 + b_2X_2 + b_3X_3 \). The research instrument consisted of 4 items related to intentions, 9 statements related to attitudes, 7 statements related to subjective norms and 7 statements related to behavioral control perceptions, where each item had been prepared with alternative answers and a weighted value had been determined for each answer.

By utilizing a Likert scale, the instrument is intended to generate accurate data. The Likert scale is used to assess a person's or group's attitudes, opinions, and perceptions toward a social phenomenon [18]. The Likert scale used in this study is a modified version of the standard Likert scale, with four alternative responses, namely (strongly agree, agree, disagree, and strongly
disagree). The Likert scale with four alternative answers is felt to be the right thing compared to using a Likert scale [19]. Five answers which add up to the neutral answer. In reality in the field, using five alternative answers will make it less accurate to draw conclusions and research results, because it is difficult to provide assessment criteria for neutral answers.

The method of data analysis used in this study consists of three predictors and multiple linear regression analysis. The researchers used multiple regression analysis with three predictors to determine the relationship between attitudes, subjective norms, and perceptions of behavioral control, as well as the community's intention to conduct crowdfunding during the covid 19 pandemic.

3 Result and Discussion

Based on data obtained from 250 samples but what can be processed further is 235. The data discarded came from 15 respondents because they did not fill in completely for the questions given in the questionnaire. The data will be partially and simultaneously tested using SPSS 22 in order to determine the relationship between the dependent variable (intention) and the independent (attitude, subjective norms and perceptions of behavioral control). Before distributing further research instruments, the researcher conducted two tests on these instruments, namely the validity and reliability tests. Based on testing the validity and reliability of the research instrument using Pearson Correlation and Cronbach Alpha to the instrument consist of 4 items of statements related to intention, 9 statements related to attitudes, 7 statements related to subjective norms and 7 statements related to behavioral control perceptions, it resulted in a valid research instrument with a value of \( r \geq 0.3 \) and reliable with Cronbach Alpha value \( \geq 0.70 \) [20]. The model in this study is a multiple linear regression model, so before carrying out multiple regression analysis, a classical assumption test is required. If it meets conventional assumptions, linear regression model is called a good model. The classical assumption test is therefore required before the regression analysis is performed. The classical test consists of normality testing, heteroscedastic testing, multicollinearity testing, linearity testing and autocorrelation testing [19],[20]. The normality test was performed with the Kolmogorov-Smirnov. The result was a Sig value of 0.000 and the data received was declared normal because the sig value was <0.05. As for the multicollinearity test is used provided that the value of the VIF is not more than 10, and the tolerance value not less than 0.1. Table 1 shows the results of the multicollinearity test.

Table 1. Multicollinearity Test

<table>
<thead>
<tr>
<th>Model</th>
<th>Collinearity Statistic</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitude</td>
<td>.905</td>
<td>1.105</td>
<td></td>
</tr>
<tr>
<td>Subjective Norms</td>
<td>.934</td>
<td>1.071</td>
<td></td>
</tr>
<tr>
<td>Behavioral Control</td>
<td>.967</td>
<td>1.034</td>
<td></td>
</tr>
</tbody>
</table>

3.1 Chi-Square goodness of fit test

The F test shows the relation between the independent variables and the dependent variable. The "F" test then examines whether the independent variables, namely Attitude (X1), Subjective
Norms (X2) and Behavioral Control perceptions, have an impact on the dependent variable together, namely the intention of conducting crowdfunding during the covid 19 pandemic (Y). With the 95% confidence, $\alpha = 5\%$, with the degree of freedom, $df (n-k-1)$, [19], [20]. Table 2 shows the results of the F test.:

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>79.565</td>
<td>3</td>
<td>26.522</td>
<td>17.430</td>
<td>.000b</td>
</tr>
<tr>
<td>Residual</td>
<td>194.768</td>
<td>232</td>
<td>1.522</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>274.333</td>
<td>235</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The F value is calculated (17,430), the F table is (2.68). F count (17,430) > F table (2.67) of equal size probability (0.000). Meaning value = (0.000) < (0.05) for a rejection of H0, the alternative H, which means the model is feasible and has a considerable positive effect between the independent variable and the dependent variable.

3.2 Partial T-Test

The t test is used to test if each independent variable, namely Attitude (X1), Subjective Norms (X2), Behavioral Control (X3) and the variable's intention to conduct crowdfunding during the COVID 19 Pandemic, has a positive and significant influence (Y). Each variable is independent of the dependent variable, if one of the independent variables is fixed/controlled) with a probable level of 0,05 and free df (nk-1) [19][20]. Table 3 shows the following partial t test.

<table>
<thead>
<tr>
<th>Model</th>
<th>T value</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>1.109</td>
<td>.269</td>
</tr>
<tr>
<td>X1 Attitude</td>
<td>5.405</td>
<td>.000</td>
</tr>
<tr>
<td>X2 Subjective Norms</td>
<td>2.735</td>
<td>.007</td>
</tr>
<tr>
<td>X3 Behavioral Control</td>
<td>1.069</td>
<td>.287</td>
</tr>
</tbody>
</table>

The following results are obtained on the basis of Table 3: The attitude variable affects the purpose that is demonstrated by the t-value (5.405) > t table (1.656) and the meaning of the attitude variable is (0.00) < (0.05). H1 is accepted. And H1 is accept. Subject standard variables have a positive and significant effect with a value of (2735) > t table (1.656) with a meaning level of (0.007) < (0.05). The variable of the perceptual behavior control has a positive but insignificant t-value effect (1.069) < t table (1.656) and the meaning level is (0.287) < (0.05).

3.3 Discussion

3.3.1 The effect of attitude on intention

The results of this t test show t to be higher than the t table and that the importance level for the variable attitude is less than 0.05 so that the hypothesis 1 (H1) is acceptable. The results of this study support previous researchers' research [13]–[15],[21]. From the results of this data...
processing, we can see that the attitude of the people of DKI Jakarta greatly influenced their intention to carry out crowdfunding during the COVID-19 pandemic, this was because the more positive public confidence in crowdfunding, the higher the intention to mobilize empathy and solidarity in conducting crowdfunding. For initiators and managers of crowdfunding funds, it is hoped that they will be able to maintain public trust by providing transparency and targeted allocations to maintain and even improve the attitude of the community in carrying out crowdfunding. The more people involved, the better and the greater the positive impact that will be generated.

3.3.2 The effect of subjective norms on the intention of crowdfunding

Based on the researchers' data processing results presented in Table 3. It is known that the t test results show that t is greater than t table and the significance level for the subjective norm variable is less than 0.05, so that hypothesis 2 (H2) is accepted, means that subjective norms have a positive and significant effect on the intention to do crowdfunding.

The results of this data processing do not correspond to the results of research conducted by Putra [14] which indicates that the subjective norm variable has a positive yet minor effect on the intention variable. However, other research results, such as the research results, confirm the positive and significant influence of subjective standards on the intensive choice of Baitul Maal Wat Tamwil (BMT) [12]. And it is supported by research results, which show that subjective standards have a positive and significant effect on the entrepreneurship of students in the Faculty of Economics. [21] The results of data processing can be seen as having a significant positive impact on the intention of people to crowdfund through the selection of a positive direction, which means that believers standards have been raised by the numerous suggestions made by parties such as family, working friends, relatives and religious leaders.

Religious leaders play a role in the formation of individual, family and community norms [22], therefore religious leaders are expected to be stronger in directing solidarity and empathy for others both individually and institutionally so that they are able to withstand all the negative impacts of the COVID19 pandemic.

3.3.3 The effect of perceptions of behavioral control on the intention of crowdfunding during the covid 19 pandemic

On the basis of Table 3 it is known that t-test results show that the t-table is higher than T-count and that its significance is higher than 0.05, which means it is not significant, and that the hypothesis 3 (H3) is rejected, which means that the perception is not significant. Control of the behavior has a positive but negligible effect on the intention of people to make crowdfunding during the COVID19 pandemic. The results of this data processing are consistent with previous investigations which state that the perception of behavior control does not have a significant impact on Baitul Maal Wat Tamwil's intention [12]. Behavioral control perceptions are feelings of how easy or difficult a person can manifest a behavior influenced by two factors, namely control of beliefs and perceived power [21].

So, it is very important to maintain public trust in crowdfunding fund management. People's beliefs are inherent in their perceptions of life. However, the people of DKI Jakarta prove that even though there are leaks in the management of funds from the community, especially government-managed funds, they are still moving to care for others using the crowdfunding platform. This is proof of the generosity of the Indonesian people, especially the residents of
Jakarta, to continue crowdfunding even though they are both experiencing difficulties caused by the covid 19 pandemic.

3.3.4 The influence of attitudes, subjective norms and perceptions of collective behavioral control on the intention of conducting crowdfunding during the covid 19 pandemic

The feasibility of the multiple regression model in Table 2 results that indicate that the calculated F value is greater than the F table, which is positive and significant, thus allowing the acceptance of Hypothesis 4 (H4), which means that the model is practicable and has a significant positive effect between indigenous variables with dependent variabilities. This shows that the variable attitude, subjective norms and behavior management have a substantial positive effect on the intention variable at the same time.

These results are supported by results from previous studies on the "Analysis of Factors affecting the intent of Muzakki to pay Zakat," and it can be seen from multiple regression analyses that together the attitude, subjective standards and perceived behavioral control variables have important effect on the intention variable of paying zakat muzaki [13], [14].

Similarly, previous studies on "Application of theory Of Planned Competence to Generate Entrepreneurial Intentions for Unpaz and Dili Timor Leste" have shown that attitude, subjective standards and perceived behavioral control together have an important influence in encouraging the entrepreneurial intention or intention of economics students [21].

The results of researchers' data processing show that attitudes, subjective norms and the perception of people's behavior control are positive and significant to their intention to finance the crowd, shows that a positive attitude of confidence, the incentive of the people around and control of community behavior will increase people's intention to conduct

The findings of this research have answered the problem or the problem formula in this study, which explains how the perception of behavior management in these studies has no significant and positive effects on the intent of crowdfunding during the Covid 19 pandemic. At the same time, the results of the research show that attitudes, subjective standards and perceptions of behavior control together have a positive and significant impact on the intention to fund the crowd during COVID19.

4 Conclusion

This study, which shows that subjective attitudes and norms have a positive and substantial effect on the intention to conduct crowdfunding during the COVID19 pandemic, did not have a significant impact but only positive effect in perception that control of behavior in that research. At the same time, the results of this study show that attitudes, subjective standards and perceptions of behavior control together have a positive and significant impact on the intention to fund the crowd during COVID19.

Based on this research, it is also recommended that the importance of shaping public attitudes, especially regarding public trust in crowdfunding fund management, involving religious leaders and community leaders, and also necessary to carry out social marketing to increase public awareness in transmitting goodness in order to form a strong nation.
Acknowledgments

Thank you to the respondents who filled out the questionnaire and students who helped to mobilize questionnaires in several communities regarding data collection on factors that influenced people's intention to crowdfunding during the covid 19 pandemic.

References


Enactment and Development of Child-Friendly City Policies in Indonesia

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Abstract. Indonesia has governed the Child-Friendly City's regulation since 2011 through the Ministry of Women Empowerment and Children Protection Regulation. After being implemented for more than five years, none of Indonesia's cities and regencies have reached the Child-Friendly City's Status. The highest-ranking that was successfully obtained was the 'Main' predicate. However, this 'Utama' predicate is obtained by several cities who don't have specific regulations on Child-Friendly City such as Surabaya and Surakarta, compared to Depok, Yogyakarta, and Magelang who obtained 'Nindya' predicates and already have regional regulation of Child-Friendly City. This tier research will compare the implementation of Child-Friendly City in two eligible cities for children. This research method is empirical and comparative with a qualitative approach. Data obtained through literature studies and field research.

Keywords: Enforceability, Development, Policy, City, Child

1 Introduction

In a survey conducted by the Economist Intelligence Unit (2019), the world's best places to live in were mostly located in North America (Canada & USA), Europe, and Australia. These cities are considered worthy as the best cities because they have low crime rates, minimal crime threats, a very complete and advanced infrastructure and are child-friendly cities. By contrast, the world's worst cities, still according to Mercer Consulting in 2016 are Baghdad (Iraq), Bangui, Sana'a (Yemen), Port Au Prince (Haiti), and Khartoum (Sudan). What about the cities of Indonesia? None of Indonesia's cities fall into the category of best cities or uncities that are comfortable to live in. However, cities in Indonesia are also not included in the worst category.

In its development, legally, the Awareness of the Government of Indonesia in terms of providing a more livable environment for children began since the ratification of the Convention on the Rights of the Child through presidential decree No. 36 of 1990 concerning the Ratification of the Convention on the Rights of the Child. With the ratification of the convention, Indonesia must comply with the provisions of the Convention on the Rights of the Child as described as follows: "... When countries signed the U.N. Convention on the Rights of the Child (CRC), it is expected that legislation at all levels will be brought into compliance with the provisions of the Convention." One of the provisions stipulated in the convention is the implementation of Child-Friendly City.
In line with this, this paper will answer two important problem formulations: (1) How is child-friendly city in Depok, Surakarta, Magelang, Yogyakarta, and Surabaya?; and (2) What are the alternative child-friendly city policies that can be applied by the Depok City Government?

2 Literature Review

Child-Friendly City is a district / city that has a development system based on children's rights through the integration of commitments and resources of the government, community and business world that are planned thoroughly and sustainably in policies, programs, and activities to ensure the fulfillment of children's rights. The KLA consists of 6 institutional indicators and 25 indicators of substance grouped into 5 child klaster rights clusters namely civil rights and freedoms; alternative family and parenting environments; basic health and well-being; education; utilization of leisure time and cultural activities; and special protection.

According to UNICEF, Child-Friendly Cities must guarantee every child's right to (1) participate in influencing policies towards their cities; (2) to express their opinion on the city they want; (3) participate in family, community and social life; (4) obtain basic services such as healthcare, education and housing services; (5) be able to drink clean water and have access to proper sanitation; (6) Protected from exploitation, violence and persecution; (7) Free to walk safely on the streets; (8) meet and play within-friend theme; (9) have green spaces for growth and animals; (10) living in a pollution-free environment; (11) may participate in cultural and social activities; (12) become a citizen who has equal rights and opportunities in nature to access every ministry, regardless of ethnic origin, religion, income, gender and disability.

3 Method

The research method used in producing this paper is the normative legal research method. In normative law research, researchers only use library materials or secondary data consisting of primary legal materials, secondary legal materials, and tertiary legal materials that regulate or discuss about Child-Friendly Cities both national and local regulations governing Child-Friendly Cities. Technical data analysis used in this research is technical qualitative data analysis.

4 Results and Discussion

4.1 Child-Friendly City Arrangements in Indonesia

In general, Indonesia has ratified the Convention on the Rights of the Child through the Decree of the Republic of Indonesia Number 36 of 1990 concerning Hak-Hak the Ratification of the Convention on The Rights of The Child. As a follow-up to the ratification, the government through the Ministry of Women Empowerment and Child Protection has issued legal instruments for implementing child-friendly city policies as follows:
1. Regulation of the Minister of Women Empowerment and Child Protection of the Republic of Indonesia Number 11 of 2011 concerning Child-Friendly Regency/City Development Policy.
2. Regulation of the Minister of Women Empowerment and Child Protection of the Republic of Indonesia Number 12-year 2011 concerning Indicators of Child-Friendly Districts/Cities.

Above regulations are further set forth in the form of regulations at the regional level, can be in the form of Regional Regulations or Mayors / Regent Regulations, either united in child protection regulations or made in a separate regulation.

### 4.2 Implementation of Child-Friendly Cities in Depok, Surakarta, Magelang, Yogyakarta, and Surabaya

Before explaining more about the implementation of Child-Friendly Cities in each region, we have summarized the achievements achieved by each region in the Child-Friendly City award as described in Table 1.

<table>
<thead>
<tr>
<th>Years</th>
<th>Depok</th>
<th>Magelang</th>
<th>Yogyakarta</th>
<th>Surabaya</th>
<th>Surakarta</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>Nindya</td>
<td>Nindya</td>
<td>Nindya</td>
<td>Main</td>
<td>Main</td>
</tr>
<tr>
<td>2018</td>
<td>Nindya</td>
<td>Nindya</td>
<td>Nindya</td>
<td>Main</td>
<td>Main</td>
</tr>
<tr>
<td>2017</td>
<td>Nindya</td>
<td>Nindya</td>
<td>Madya</td>
<td>Main</td>
<td>Main</td>
</tr>
</tbody>
</table>

In this case, Table 1 shows that the author will compare the implementation of Child-Friendly City that received the Main award (Surakarta and Surabaya) with the Child-Friendly City with the Nindya (Depok, Magelang, and Yogyakarta) awards.

#### 4.2.1 Child-friendly city law instruments

Table 2 shows the child-friendly city regulation in each region.

<table>
<thead>
<tr>
<th>Legal instruments</th>
<th>Depok</th>
<th>Surakarta</th>
<th>Magelang</th>
<th>Yogyakarta</th>
<th>Surabaya</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional Regulation No. 15 of 2013 on The Implementation of Child-Friendly Cities</td>
<td>Surakarta Regional Regulation No. 4 of 2012 on The Implementation of Child-Friendly City</td>
<td>Regional Regulation No. 20 of 2017 on The Implementation of Child-Friendly Districts</td>
<td>Yogyakarta Regional Regulation No. 1 of 2016 on Child-Friendly City</td>
<td>Surabaya City Regional Regulations on The Implementation of Child Protection</td>
<td></td>
</tr>
</tbody>
</table>
Based on Table 2, we discovered an interesting fact: even Surakarta and Surabaya are awarded as eligible cities for children with Utama-tier, they don't have any specific regional regulation for Child-Friendly Cities. Child-Friendly City Arrangements in Surakarta are still regulated and the Mayor's Regulation. This is different from the city with nindya category that already has a special regional regulation on Child-Friendly City.

4.2.2 Civil rights and freedoms

Table 3 shows implementation of Children Civil Rights and Freedom's fulfilment.

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Depok</th>
<th>Surakarta</th>
<th>Magelang</th>
<th>Yogyakarta</th>
<th>Surabaya</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child Friendly Forum</td>
<td>Available at RW and Kelurahan level.</td>
<td>Solo City Children's Forum</td>
<td>Magelang Children's Forum held in each hamlet.</td>
<td>Child-Friendly Forum held in each hamlet.</td>
<td>There is, but coordinated directly by DP5A. There is nothing in every RW and Kelurahan.</td>
</tr>
</tbody>
</table>

Based on Table 3, in Depok, in addition to being involved in Child-Friendly Forum, children are also involved in the Deliberation of Village Development Plan (Musrengbangkel) and Deliberation of District Development Plan (Musrengbang). While Surakarta has an innovation to make SAPU KUWAT (One Package of Population Affairs Fulfilled), a service to make birth certificates easily, free and direct.

4.2.3 Family environment and alternative parenting

Table 4 shows implementation of family environment and alternative parenting’s rights fulfilment.

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Depok</th>
<th>Surakarta</th>
<th>Magelang</th>
<th>Yogyakarta</th>
<th>Surabaya</th>
</tr>
</thead>
</table>
Based on Table 4, in Magelang, Child-Friendly Villages and Child-Friendly Sub-Districts are not yet owned by every village and sub-district. It is recorded that only 11 out of 21 sub-districts are designated as Child-Friendly Sub-Districts and 72 out of 372 villages are designated as Child-Friendly Villages. While in Yogyakarta, although there are 192 Child-Friendly Villages, only a few villages are still actively implementing child-friendly programs.

### 4.2.4 Basic health and wellbeing

Table 5 shows the Implementation of children basic health and wellbeing rights fulfilment.

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Depok</th>
<th>Surakarta</th>
<th>Magelang</th>
<th>Yogyakarta</th>
<th>Surabaya</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete Basic Immunization</td>
<td>Available</td>
<td>Available</td>
<td>Available with</td>
<td>Available</td>
<td>Available</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>achievement of 24.8%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>from target of 23.8%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Smoking Areas</td>
<td>Available</td>
<td>Available</td>
<td>Available</td>
<td>Available</td>
<td>Available</td>
</tr>
</tbody>
</table>

### 4.2.5 Utilization of leisure and cultural activities

Table 6 shows Implementation of children utilization of leisure and cultural activities rights fulfilment.

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Depok</th>
<th>Surakarta</th>
<th>Magelang</th>
<th>Yogyakarta</th>
<th>Surabaya</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compulsory Study 12 years</td>
<td>It's there and it's free.</td>
<td>It's there and it's free.</td>
<td>It's there and it's free.</td>
<td>It's there and it's free.</td>
<td>It's there and it's free.</td>
</tr>
<tr>
<td>Early Childhood Education</td>
<td>Only 3 State Early Childhood Education of 1292 Early Childhood Education</td>
<td>14 State Early Childhood Education of 523 Early Childhood Education</td>
<td>1 State Early Childhood Education of 147 Early Childhood Education</td>
<td>20 State Early Childhood Education of 708 Early Childhood Education</td>
<td>2 State Early Childhood Education of 2809 Early Childhood Education</td>
</tr>
</tbody>
</table>

Based on Table 6, although depok city has provided mandatory learning facilities for 12 years, but the educational facilities in depok city are not adequate. There are only 26 public junior high schools in Depok. The number is considered to have not met the needs of children to continue their education to a higher level when compared to the number of public elementary schools in Depok which amounted to 238 elementary schools.
4.2.6 Special protection

Table 7 shows that to provide the Government of Surabaya provides facilities Kampung Anak Negeri and Child Friendly Shelter to accommodate children facing certain cases. The same service, which distinguishes child-friendly shelters, is intended for children’s victims of sexual abuse, children facing the law, and other cases that are quite severe. While Kampung Anak Negeri is intended as a permanent residence for children with cases that are not as severe as children accommodated in Child-Friendly Shelter. The child who lives there is covered by the government and gets counseling facilities online. In Depok and Surakarta, until now, there is no children's rehabilitation center. As for child labor, Depok still faces difficulties in handling it because of the difficulty of identifying children who come from Depok with other child laborers who are speeders.

Table 7. Implementation of children special protection rights fulfilment

<table>
<thead>
<tr>
<th>Special Protection</th>
<th>Depok</th>
<th>Surakarta</th>
<th>Magelang</th>
<th>Yogyakarta</th>
<th>Surabaya</th>
</tr>
</thead>
<tbody>
<tr>
<td>Handling of children exempt from forms worst job kid</td>
<td>There is no child-only rehabilitation house yet.</td>
<td>Integrated Service Technical Implementation Unit for women and children (UPT. PTPAS)</td>
<td>BRSAMPK (Center for Social Rehabilitation of Children In Need of Special Protection) &quot;Antasena&quot;</td>
<td>Center for Social Rehabilitation of Bina Karya Dan Laras (BRSBKL)</td>
<td>Kampung Anak Negeri and Child-Friendly Shelter</td>
</tr>
<tr>
<td>Handling of children facing the law (ABH)</td>
<td>There is no child-only rehabilitation house yet.</td>
<td>Integrated Service Technical Implementation Unit for women and children (UPT. PTPAS)</td>
<td>BRSAMPK (Center for Social Rehabilitation of Children In Need of Special Protection) &quot;Antasena&quot;</td>
<td>Center for Social Rehabilitation of Bina Karya Dan Laras (BRSBKL)</td>
<td>Kampung Anak Negeri and Shelter</td>
</tr>
</tbody>
</table>

4.3 Alternative Child-Friendly City Policy in Depok

Here are some alternative child-friendly city policies that can be applied in Depok:

1. Improving the quality and quality of monitoring and evaluation of the implementation of Child-Friendly City in Depok City.
2. Working with NGOs and/or Companies in the framework of implementing corporate social responsibility in terms of providing children's rights, such as the construction of rehabilitation houses for children as victims or children facing laws requiring restoration or construction of Green Open Spaces.
5 Conclusion

In general, Depok, Magelang, Yogyakarta, Surakarta, and Surabaya already have legal instruments in the implementation of Child-Friendly City and its supporting facilities, both in terms of infrastructure, activities, and so on. Nevertheless, there are some things that need to be improved, especially in the supervision and evaluation of the implementation of Child-Friendly City. To be able to realize a Child-Friendly City, Depok city can improve the quality of monitoring and evaluation of the implementation of Child-Friendly City and bekerja sama with related parties in terms of providing children's rights.

References

Implementation and Effectiveness of Local Ordinances on Legal Aid to Secure Justice for Marginalized Community in Indonesia

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Abstract. Local Ordinances about Legal Aid is a follow-up of Law Number 16 of 2011 about Legal Aid. Legal aid for the marginalized community is a way to protect access to justice for all citizens. It is caused by the financial gap to fulfill the needs of advocates when facing legal issues. So, the government provides free legal aid to the marginalized communities that cannot afford it. This local ordinance is an implementation of the 1945 Constitution of the Republic of Indonesia and part of Sustainable Development Goals (SDGs) point 16. This research will identify, evaluate, and review the implementation and effectiveness of local ordinance on legal aid in several regions that already have the ordinances, such as the City of Padang, Tasikmalaya, Purbalingga, and Yogyakarta. This research employs normative comparative methods with a qualitative approach. It finds that there are a small number of local ordinances about it. In some regions, the regulation itself does not impact society due to limited budget availability and the number of legal aid advocates. The implication is that local ordinances on legal aid should and must secure access to justice for marginalized communities.

Keywords: Local ordinances, legal aid, marginalized communities

1 Introduction

Legal aid appears as a cause of Indonesia's obligation for it, so it should provide the marginal communities with legal assistance from the first stage of the investigation until the judges give permanent legal force in the court. Not all citizens can provide it due to the financial gap. Legal aid is one of the proofs that Indonesia, as a nation of law, protects all citizens' layers, including the marginal communities. Justice for marginal communities at the law in Indonesia ruled in the Constitution Article 27 paragraph (1) in conjunction with Article 34 paragraph (1) [1]. Also, point 16 of Sustainable Development Goals (SDGs) leads to having justice for all. In 2011, Indonesia made Law Number 16 the Year 2011 on Legal Aid to specify legal aid regulation. Article 19 paragraph (2) is embodied as local ordinances in regionals [2]. As a result, every province could also make their own local ordinances regarding their own needs about legal aid be guided by Law on Legal Aid. Although they have regional autonomy to make it, not every regional, provide it. So, the legal aid for every marginal community is still not distributed evenly.

As the Law on Legal Aid 2011 delegate regionals to make their own local ordinance, the Government gives budget allocation on legal aid to legal aid organizations for adequate the
citizens need on law based on government organizations or the independences. For example, the Indonesian Advocacy Center for Law and Human Rights (PAHAM) also have Pos Bantuan Hukum. There are already some journals of legal aid in Indonesia, but there are several papers in international journals about the implementation of legal aid in Indonesia.

This paper will discuss the implementation and effectiveness of legal aid in several regions in Indonesia. The research will focus on implementing several regional local ordinances on Legal Aid, such as the City of Padang, Tasikmalaya, Yogyakarta, and Purbalingga. It also compares how legal aid is fulfilled by legal aid organizations like PAHAM, the Indonesian Legal Aid Foundation (YLBHI), and Legal Aid Agency in Yogyakarta (LBH Yogyakarta). This paper aims to compare the implementation of legal aid in Indonesia through local ordinances on legal aid.

2 Method

This research method is narrative with a qualitative approach data obtained through literature studies and interviews. The literature study used consists of primary and secondary legal materials. Primary legal material consists of Law Number 16 the Year 2011 on Legal Aid, Government Regulation No. 43 of 2013 concerning Terms and Procedures for Providing Legal Assistance and Distribution of Legal Aid Funds, as well as regional regulations for legal aid in each region (City of Purbalingga, Tasikmalaya, Yogyakarta, and Padang).

The secondary legal material includes all legal publications on legal aid, particularly regarding the effectiveness of local regulations on legal aid in several areas where this research is conducted. Previously, almost similar research had been carried out regarding legal aid, one of which was the research of Angga and Ridwan Arifin entitled "The Application of Legal Aid for Underprivileged People in Indonesia," published in Journal of Diversion Law Volume 4 the year 2018. This study only examined the provision of legal aid to the marginalized community. Still, only general discussion in Indonesia, there is no explanation regarding the regulation made by the regions in applying legal aid. Then there is also similar research in the legal research journal by Budijanto in 2016 with the title of Increasing Access to Legal Aid For The Poor. The shortcomings of this study do not explain the effectiveness of regional regulations that govern this legal aid.

3 Result and Discussion

3.1 Results

3.1.1 Purbalingga

Regulation related to Legal Aid in the Purbalingga Regency is regulated by Local Ordinance Number 1 of 2017 concerning Legal Aid for the Poor. Like the previous regulation, the provision of legal assistance is provided to the poor with an identity in the form of an Identity Card / Family Card domiciled in Purbalingga Regency. A Poor Certificate confirms this from the Village or Sub-District. The poor's definition in this regulation is a society that cannot meet their basic needs such as clothing, food, shelter, education, and health with minimum standards.
Legal assistance in litigation is provided to defendants, convicted persons who submit ordinary or extraordinary legal remedies, and suspects who are categorized as poor. Legal assistance is provided at the stages of the investigation, prosecution, and legal remedies. For civil cases, legal assistance is provided to the Petitioner / Plaintiff and Defendant / Respondent. Non-litigation legal assistance is provided by paralegals, advocates, lecturers, and law faculty students who meet the requirements. Furthermore, non-litigation legal assistance is regulated in the Purbalingga Regent Regulation. However, until now, there has been no further regulation.

The procedure for filing legal aid according to this perda is the same as the two previous regional regulations. The party whom applying for legal aid, must attach a photocopy of their resident ID Card) or Family Card along with Poor Certificate (reference letter from local authority which explain the degree of poverty of the holder) and also a written description of legal issues to the legal aid provider. Applications can be submitted by potential beneficiaries or their families, either individually or in groups. If the requirements are incomplete, then five days are given to complete it. If it is complete, then the legal aid provider must accept or reject answers within three working days. A maximum of 14 days after the case has been completed or has entered into legal force, the legal aid provider must report to the Regent through the legal department. Funding requests will be reviewed and verified by the Legal Department. Reports are submitted together with payment requests made through a reimbursement mechanism. Payments are made in stages. Provision of legal aid funds is supervised by a Supervisory Team appointed by the Regent. In contrast to the City of Tasikmalaya, whose supervision is carried out by the mayor once a year or as needed.

3.1.2 Tasikmalaya

In Tasikmalaya, there is a regional regulation or local ordinance (PERDA) regarding the implementation of legal aid for the poor, namely PERDA number 1 of 2018. This PERDA is a way to protect the principle "equality before the law", which is implemented by allocating a legal aid budget, especially for the poor. Organizing legal aid and allocating legal aid budgets for the poor is an authority and also the responsibility of the central government, as regulated in article 6 paragraph (2) and Article 17 of Law number 16 of 2011 concerning legal aid, as well as article 18 paragraph (1) Government regulation number 42 of 2013 concerning Terms and Procedures for Providing Legal Assistance and Distribution of Legal Aid Funds.

Based on the statistics made by Badan Pusat Statistik data in 2014, the number of legal aid providers in Tasikmalaya Regency is still unequal when compared to the total population. Of the total Kabupaten Tasikmalaya population around 1.7 million, there are only 20 advocates who are active as legal aid providers. So, it can be said that one advocate seems to be accompanying 85,000 residents in Tasikmalaya Regency. There are various problems in building legal awareness and expanding access to legal aid for vulnerable and marginalized communities in the Tasikmalaya Regency, one of which is the unequal number of legal justice seekers and legal aid service providers. With such a long number, it is natural that legal awareness in Tasikmalaya is still low.

On November 7, 2018, a National Paralegal Gathering event was held, initiated by The Asia Foundation and USAID, along with implementing partner institutions such as YLBHI, Peradi, and LBH throughout Indonesia several community organizations communities. The National Paralegal Meeting featured speakers from MAJU (Empowering Access To Justice), the National Law Development Agency (BPHN). This activity is a follow-up to the implementation of Permenkumham (Regulation of Minister of Law and Human Rights) Number 1 in 2018 concerning Paralegals in Providing Legal Aid. Present at the event, representatives from
USAID, Asia Foundation YLBHI. LBH Jakarta, LBH Bandung, LBH Yogy, LBH Surabaya, Semarang, ALDP and LBH Papua, DPC PERADI Tasikmalaya, Rifka Anisa from Yogya Yapika, LBH Masyarakat LBH Apip Jkt, MAPPI FH UI. Swara Kita, Gwl Ina, Forum for providing services for women victims of violence.

3.1.3 Yogyakarta

The city of Yogyakarta has a Local Ordinance on Legal Aid No. 3 of 2019. District Court of Yogyakarta having relation with Association of Indonesian Advocate (PERADI) Yogyakarta already provided 70 issues for the legal aid in 2019. This legal aid has been performed for the marginal communities by Legal Aid Institution District Court of Yogyakarta. From 48 million rupiahs for the implementation of legal aid, the spent are about 47 million. It contains giving advice, legal assistance in court, etc.[4, p. 38].

Mr. Wawan Andriyanto from PAHAM Yogyakarta on the interview said that the implementation of legal aid in Yogyakarta still not effective. The first problem in PAHAM is the human resource. There are only four advocates to handle a lot of cases from the marginalized community. So, they must be selective to take the case. Another problem is the budget for legal aid. Legal aid needs more than legal aid budget allocation. The budget allocation cannot cover all the needs.

While they should take it as part of their work responsibilities as advocates, they also need to do pro bono or give free legal aid to marginalized communities. With the limited source of advocate, they should be selective in the cases. They need to select the most needed people to get legal aid from them. The last problem is the power of regional politics affected the marginalized people. They tend to think that every selected problem that has advocates will free them from jail or penalty. So, the politician pushes the advocates to make the people free from cases.

Based on Annual Report of Indonesian Ministry of Law and Human Rights Year 2013, Kulonprogo is the only regional in Yogyakarta Province that do not have any legal aid agency [5, p. 56]. The limited amount of legal aid organizations in Yogyakarta do affect their working area, like Legal Aid Agency in Yogyakarta which should cover large area, such as Cilacap, Solo, Probolinggo, and some other areas near Yogyakarta [6, p. 15].

3.1.4 Padang

The West Sumatra Provincial Government has initiated a policy of providing free legal aid for the poor based on West Sumatra Regional Regulation Number 13 of 2014 concerning the Implementation of Legal Aid. West Sumatra Regional Regulation Number 13 of 2014 concerning the Delivery of Legal Aid is a policy at the provincial level of West Sumatra. As for Padang's city level, the regulation regarding legal aid is regulated in Padang Local Ordinance Number 2 Year 2015 concerning legal aid for the poor [7].

Padang City is the capital of West Sumatra Province, located on the west coast of Sumatra. The area of Padang City is 694.96 km2 or equivalent to 1.65 percent of West Sumatra Province [8]. Because of Padang City is the capital of West Sumatra Province, it makes all forms of economic, educational, and social activities centered in the city. It not infrequently also raises various kinds of legal problems that arise in the community. One of the well-known legal aid organizations or organizations in Padang is the Center for Legal Advocacy and Human Rights (PAHAM). PAHAM is a national legal aid organization with many branch offices in several cities in Indonesia. one of them is in Padang. The PAHAM office in Padang itself was
established in 2001. This is the vision of PAHAM itself, namely that justice belongs to all community members without the slightest distinction [9].

The problems encountered by PAHAM West Sumatra in implementing legal aid consisted of internal and external factors. From internal factors, the problem is the lack of resources owned by PAHAM. The facilities are very minimal, especially the absence of office transportation equipment, making it difficult for advocates to mobilize. Meanwhile, many clients are not open and dishonest; besides that, there is a lack of budget to solve a case that requires legal assistance. Case handling operational costs is one of the obstacles to implementing Legal Aid. The cost of 5 million rupiahs per case in the Legal Aid scheme is considered insufficient, especially regarding geographical factors. For Padang's city, the court fee for criminal cases is required as much as 4.7 million to 17.3 million Rupiah. Meanwhile, for civil cases, as much as 6.5 million is needed to 10.5 million Rupiah. Likewise, with the state administration case, a court fee of 6.5 million Rupiah is required. If you look at the Needs Mapping above, then the cost of 5 million rupiahs per case can be relatively sufficient if the case is in the city. Still, if the client is outside the city, it is relatively insufficient [5].

3.2 Comparison of research objects

The implementation of legal aid in Purbalingga is generally carried out by three agencies, namely: first legal aid institutions such as PAHAM, LBH. Then also go to the Posbakum Court. The latter can go directly to the local government law firm so they can find a free lawyer. The village government in Tasikmalaya Regency continues to strive to improve legal understanding for the community. At least 20 villages have pressed the Memorandum of Understanding (MoU) to increase legal understanding and legal assistance with the ANSOR Legal Aid Institute (LBH). From the records of LBH ANSOR, at least 20 villages in three sub-districts have made MoUs. However, understanding of the law at the village government level is still minimal. Following this MoU, a legal aid post was opened at the village level. The community can also be consulted in case of legal proceedings.

Indonesian Legal Aid Foundation Yogyakarta (LBH), from their annual report year 2019, found several issues for legal aid provided in 2019: land and environment issues, a community of religions and beliefs issues, etc. LBH Yogyakarta in 2019 provided legal aid for 200 issues with 8,567 beneficiaries. In Padang City, legal aid is provided to underprivileged people facing legal problems. The problem is related to civil law, criminal law, state administrative law, both in litigation and non-litigation. Legal aid implementation is carried out by a legal aid agency that has met the requirements stipulated in this Padang city regional regulation. There are five legal aid agencies in Padang City, such as PAHAM, LBH, and others.

4 Conclusion

The right to legal aid has been universally accepted, as guaranteed in the International Covenant on Civil and Political Rights (ICCPR) which has been ratified by Indonesia through Law No. 12/2005. In the rule of law, the state recognizes and protects human rights for every individual, including the right to legal aid. In all four object places, legal aid is regulated. In Purbalingga, the legal aid is carried by three agencies as the implementation. In Tasikmalaya, it's implemented by MoUs. In Yogyakarta, there are several fields of issues for legal aid provided. In Padang, there are five legal aid agencies. But, the implementation of regional
regulation needs to be more comprehensive and cover local people's needs. So, it can be applied more effectively.

Acknowledgment

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References

[7] Padang City, Padang City Local Ordinance Number 2 Year 2015 of Legal Aid for Poor People. Indonesia, 2015.
The Problems of Digital Da’wah during the Covid-19 Pandemic

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Abstract. Currently the world is in crisis due to the emergence of Covid-19 and it has an impact on the lives of all sectors of people's lives. Da’wah is an urgent problem because it involves the human need for life motivation to increase individual religiosity as religious beings in the midst of life difficulties due to the impact of Covid-19. Da’wah always has opportunities and challenges in its implementation to determine plans and strategies. Da’wah is a need of everyone, especially Muslims, so that the preachers use various ways to convey the message of da’wah. In real life, the implementation of da’wah using online or digital media has been going on for a long time, but over time in Covid-19 the amount of use of digital media has become very dominant. Research on digital da’wah problems in the Covid-19 era, researchers used qualitative descriptive methods to collect problems in the application of digital da’wah in the Covid-19 period. The problem of digital da’wah includes several things, including the capacity and capability of preachers, the physical and social environment, the level of education, da’wah strategies, community responses, and da’wah media. Through this research, an important solution was found to solve the problem of digital da’wah in the Covid19 pandemic, namely digital training for preaching, preaching motivation, the use of multi-purpose da’wah, awareness of parents and educators to play a role in Islamic da’wah.

Keywords: Digital da’wah, Pandemic covid-19, Media da’wah

1 Introduction

The world of communication today is faced new era, especially in Indonesia. It is technology and communication developments which has multi-effects for community due to information sharing. There is communication mass media plays a function to convey messages easily to public [1]. It is a new media to encompass digital emergence, computers, or information and communication technology networks in the late 20th century. Most of the technologies described as new media are digital, often has the characteristics of being manipulative, networked, compact, incompressible, interactive and not taking sides [2]. In simple way, new media defines media technology communication involving the computer in it both based on PC and notebook. It will form an interaction between humans and computers and the internet in particular, including to; web, blog, online social network, online forum and others that use computer as the media [3]. In the same time, it can be found in a network by clicking the mouse, or even just download the database our electronics simply [4].

Da’wah tries to guide its people in order religious awareness grows in carrying out religious teachings in a wiser way so as to make an impact constructive for the life of the wider
community. Included in this is to use media. Da’wah by technology needs not only spiritual development but also needs its existence as a consequence of modernization of the times. Phenomenon da’wah through social media; facebook, Instagram, podcast, blog and youtube is one part of communication and Islamic broadcasting. Community needs to fulfill aspects of various method-related innovation of da’wah [5]. Yet digital da’wah meets some challenges; content, innovation and attitude. Yet, we have a problem in content. Too many contents sometimes do not solve the problem. It has a vagueness of its essence and purpose. It is interference of such materialism, hedonism, and capitalism of course those will be a threat to the existence of fundamental value of da’wah [5]. The amount of public interest in digital media is not as equal as the high expectations of da’wah because of less innovation then it influences the user of da’wah itself [6]. The last is the attitude, the modern era born dynamic Muslim society. It means in society, there are many different thought and perspectives. The tendency becomes one of the determining factors for the success of preaching goals [5] [7].

In the previous study, the researchers have observed the new concept of da’wah, the comparison and its impact [5]. Da’wah is not only about communication but also participation between da’i to jama’ah. It means there is interaction among them [8], strategy to touch both psychology and sociological aspect which considered in carrying out the situation and the condition of the target of preaching [9], for example, local government politics, the majority of religions in an area, philosophical preaching targets, and socio-cultural targets of da’wah. The study of good communication between different perspectives; the puritan and traditional using a symbol [10], communication by social participation [11], strategy to prepare new da’i with digitalization [12][13].

Regarding to the latest condition, there are three problem statements in da’wah concept, they are:

− Why and how does the da’wah transform into digital communication?
− What are digital da’wah challenges in the pandemic era?
− How digital da’wah can be acceptable in some communities?

2 Methods

This research is descriptive, qualitative research approach triangulation data collection, the object of this research is the internet media then interpreted as part of a new media towards the expression of the diversity of da’i and the ummat, or anything related to da’wah in new media. This research is more concerned with what rather than how or why something has happened [14]. Therefore, observation and survey tools are often used to gather data Approach This research is called a qualitative descriptive approach. The reason researchers use Qualitative method approaches include researchers who already know existing conditions in new media. And this adds to the resilience of researchers make it easier to do research with this type of qualitative research or research which in it prioritizes an analysis of an event or the process as it is in a natural environment to acquire meaning of the essence of the process [15].

3 Results and Discussion

The communication media is important for da’i to convey the message persuading people to stay in his/her religion. It is called da’wah. The transformation of da’wah is growing fast in
the pandemic Covid 9 besides Industrial revolution 4.0 era. The communication uses from one to another; the traditional to digital tools [16]. The new da’wah used digital became more popular. According to the media, the digital da’wah is divided on three; audio, visual and audio visual.

3.1 Digital da’wah by audio

This communication uses audio for the media. The da’i converted the materials to MP3 through application in smartphone, which people use in his/her daily life. It has many kind of application (apps); They are Anchor apps, Spotify apps, podcast apps, google podcast apps and so on, we can find digital online podcast or fm radio, such as Bahasa Arab on Spotify (https://open.spotify.com/episode/1x3NdZ6wP6zZKoZmlL8L1l) show in Figure 1 and podcast inspirasi Nabi by Muda Community (https://anchor.fm/mudacommunity) show in Figure 2. The contain of the da’wah is most about history of Prophet Muhammad, learning Arabic; taksin and tajwid, social life (muamallah) and so on. The duration can take long one; 5-160 minutes.

3.2 Digital da’wah by visuality

This communication uses visuality only for the media. They use picture, meme or just a text. In picture we can find it in graphic design on pinterest (https://pin.it/1azeifv) show in Figure 3), blog (https://umma.id/post/aku-istihadah-atau-haid-sih-361988?lang=id) show in Figure 4, and so on. The content of the da’wah is almost about fiqh; tips to do something correctly as muslim, such as how to use male or female perfume, how to pray correctly and so on.
3.2.1 Digital da’wah with audio and visual

This communication uses audio and visual for the media, there are shown mostly in MP4. The media will be put in Instagram (Figure 5), facebook (Figure 6), youtube (Figure 7), and zoom (Figure 8). The contents are about aqidah, fiqh, muamallah, siroh nabawiyyah, tajvid, tahsin, shorf and so on. It is more popular than digital visual and audio because the users can watch some moving pictures.
This digital with audio and visual has many varied options in content. It is also popular in the youth because of simple and downloadable. But sometimes it is found some problems; the channels are so many that those are not viewed because less of quality or same content. The da’i just want jamaah to click like and subscribe. It means that da’i has another intention in making his/her channels. The channel has a limited duration; 5-30 minutes.
3.3 Discussion

Digital da’wah has some problems; the personal digital ability. It is not easy to transform the class in the pedagogic perspective. Da’i should schedule for the virtual classroom as he/she wishes, and aware the interesting one to stimulate jama’ah to learn and participate in virtual class activity. In reality, the learners do not seem to consider it as a real classroom or real rubric, and da’i did not have a control the virtual class. Another problem is too many channels in different platform, yet it has the same content. The audience can be confused and they just choose the favorite or popular da’i. It makes the messages have not conveyed maximally. Therefore da’i meets two challenges; how to master digital communication, make content with good quality in audio and visual, and set a virtual classroom by digital platform, like facebook, Instagram, youtube etc. The second is how to focus on certain topic and level. It will make sure the audiences understand and messages are transferred well.

4 Conclusion

All thing removed the manual way to digital. They are included on market, education, security, and so on. It is involved on communication. Da’wah is how to persuade someone or people to do better in relationship between God and human and human to social according to Islam direction. Da’wah is one of the communication systems which transforms into digital communication through audio, visual or audio visual. Recently people know the facebook, Instagram, youtube, and podcast o her/his smartphone. They are so popular in all generations.

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References


The Classification for Steel Corroded Reinforced Concrete Beams Using Linear Discriminant Analysis

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Abstract. Corrosion of steel reinforcement in the reinforced concrete (RC) members contribute to structural damage and failure. This study proposes a damage classification method for corroded reinforced concrete (RC) beams subjected to flexural loading by linear discriminant analysis (LDA) of acoustic emission (AE) data. The structural behavior of RC beam specimens induced with varying steel corrosion levels was evaluated by AE monitoring during the flexural load test. Analysis of primary AE data, RA value (ratio of rise time to amplitude of the waveforms) could be correlated and used to classify the fracture type. It was found that the proposed LDA could achieve good accuracy in damage classification of corroded RC beams.

Keywords: Corrosion, concrete, AE technique, LDA

1 Introduction

Corrosion of the steel reinforcements in RC structures is a worldwide problem [1]. The corrosion has been recognized as the major deterioration mechanism which affects RC degradation due to the environmental actions [2]. The costs of repair and maintenance of corroded structures worldwide exceed billions of dollars per year [3]-[6]. It becomes necessary that the effects of steel reinforcement corrosion on RC structures' functionality be detected early and studied in detail using an effective inspection method to provide effective remedial means [7]-[9]. Non-destructive testing (NDT) method is an objective-oriented inspection method for damage evaluations, i.e., steel corrosion [9]-[13]. Regarded as one of the popular NDT methods based on elastic wave propagation monitoring, the Acoustic Emission (AE) technique has also been studied for use in detecting steel corrosion in concrete [14]-[16]. The elastic waves generated due to corrosion events (i.e., cracking) could be successfully detected by placing AE sensors on the surface of concrete [17]-[19]. The first recorded application of the AE technique for corrosion evaluation in RC structure was done by Dunn et al. in 1984 [20]. The AE parameters, such as accumulated hits, signal strength, and energy, were successfully used to identify and characterize the RC structures' steel corrosion. The AE sources were also classified in terms of RA value and AF to classify the type of failure [21]-[24].

Many classification techniques for interpreting AE data have been developed in recent years. However, to date, success has been limited to interpreting the AE data. Therefore, this
research aims to represent classification techniques in a suitable format that evaluates the steel corroded of the concrete structure. In this study, mechanical load testing was conducted at several RC beams with varying corrosion levels through recorded data of the AE activity to classify the damage by linear discriminant analysis (LDA). The AE parameters, namely RA value, were obtained to evaluate the corroded RC beams. Therefore, a drop in RA value could be indicative of an impending fracture. Thus, LDA was conducted to study the drop of RA value of the monitored AE data for corroded beam specimens’ damage classification.

2 Method
2.1 Materials

Four concrete beam specimens with varying corrosion levels (i.e., Control (0%), 9.54%, 19.84%, and 24.60%) were prepared in the study. The corrosion levels of beam specimens were 0% for S0, 9.54% for S10, 19.84% for S20, and 24.60% for S25. The concrete beams have dimensions of length = 500 mm, width = 100 mm, and height = 100 mm. The diameter of the tensile reinforcement was 12 mm. The bottom cover was 26 mm from the concrete surface. The details of beam specimen are shown in Figure 1.

![Fig. 1. Details of beam specimen (units are in mm)](image)

Ordinary Portland cement (OPC), river sand, and crushed granite with a maximum aggregate size of 10 mm were used to prepare the concrete mixture. The compressive strength, average modulus of modulus elasticity, and average Poisson’s ratio of the concrete at 28th day of after casting are 37.31 MPa, 26.49 GPa, and 0.17, respectively.

2.2 Accelerated corrosion technique

Corrosion was induced to the steel reinforcement using the impressed current technique after 28th days of moist curing, by adopting a direct current (DC) power supply [6, 25, 26]. The corrosion level was obtained from the voltage, current, and duration of exposure (time interval) using Faraday’s Law [27].

$$\Delta m = \frac{M \cdot I \cdot t}{z \cdot F}$$  \hspace{1cm} (1)

Where: $\Delta m$ = mass of steel consumed (g, gram), $M =$ atomic or molecular weight of metal (56 g/mol for steel), $I =$ current (A, amperes), $t =$ time current or potentials applied (s, seconds), $z =$ ionic charge or electrons transferred in the half-cell reaction (2 for steel) and $F =$ Faraday’s constant (96500 A/s).
The positive terminal of a DC power supply was connected to steel reinforcement as an anode by an electrical wire, while the negative terminal was connected to the steel reinforcement bar as a cathode. The concrete was partially immersed in a water tank filled with 5% sodium chloride (NaCl) solution. The NaCl solution was in contact with the bottom of the concrete beam. During the corrosion process, the electrical current was kept constant. The corrosion process was continuously monitored until the steel reinforcement corroded to the estimated mass loss required with different exposure times.

2.3 AE data acquisitions

During the load testing, the beam specimens were also monitored using the AE technique. For the AE data acquisition, six AE sensors were attached to each concrete specimen. The schematic acquisitions of the AE technique are shown in Figure 2.

![Schematic data acquisitions of AE technique (unit are in mm)](image)

2.4 Linear discriminant analysis (LDA)

The LDA performs well in many applications. LDA’s basic idea is simple: for each class to be identified, calculate a (different) linear function of the attributes. The class function yielding the highest score represents the predicted class. There are many linear classification models, and they are different largely in how the coefficients are established. LDA does not require multiple passes over the data for optimization. Also, it naturally handles problems with two classes and more. It can estimate the probability for each of the candidate classes [28].

The LDA solves a general Eigen-problem. Suppose there are C classes and n number of d-dimensional training samples, and nc denotes the number of training samples of class c. Let 1 denotes an all-one vector of proper length. The equations for within-class scatter matrix, Sw, between-class scatter matrix, Sb, and total scatter matrix, St, are:

\[ S_w = \frac{1}{n} \sum_{c=1}^{C} (\bar{x}_c - m_c 1^T) (\bar{x}_c - m_c 1^T)^T \]

\[ S_b = \frac{1}{n} \sum_{c=1}^{C} n_c (m_c - m)(m_c - m)^T \]

\[ S_t = \frac{1}{n} (\bar{x} - m 1^T) (\bar{x} - m 1^T)^T \]

Where: \( X \in \mathbb{R}^{d \times n} \) = the data matrix in which the columns are training samples, \( X_{\_c} \) = the data matrix of training samples belonging to the class c, \( m \) = the mean vector of all training samples.
samples, \( mc \) = the mean vector of training samples belonging to the class \( c \), and \( T \) = denotes matrix transpose.

The LDA computes a linear transformation matrix \( W \in \mathbb{R}^{d \times (C-1)} \), and usually \( d \gg C \). The transformation matrix projects data from the original high-dimensional space into a low-dimensional space, maximizing the between-class distance while minimizing the within-class distance. Traditional LDA finds the optimal transformation matrix \( W_{LDA} \) by solving the optimization problem [28].

\[
W_{LDA} = \arg \max \text{trace}(W^T S_b W (W^T S_b W)^{-1})
\]  

(5)

According to Galloway [29], when the total scatter matrix \( S_t \) is non-singular, the solution \( W_{LDA} \) consists of the top eigenvectors of the matrix \( (S_t^{-1} S_b) \) that corresponds to non-zero eigenvalues. When the total scatter matrix \( S_t \) does not have a full rank, \( W_{LDA} \) consists of the eigenvectors of \( (S_t^{-+} S_b) \) corresponding to the non-zero eigenvalues \( S_t^{++} \) denotes the pseudo-inverse of \( S_t \) [30].

3 Result and Discussion

3.1 Accumulated of AE hits

Figure 3 shows the relationship between the accumulated AE hits and load level (%) of the beam specimens. The accumulated AE hits decrease as the corrosion level of the specimens increases. In general, as the load is applied, the AE hits appear to increase before the first visible cracks. After forming the first visible crack at the range of 10% to 30% of the load level, AE hits' rate rapidly increases. Afterward, as the loading continues, the cracks propagate, and the AE hits gradually increase until beam specimen failure occurs. Based on the history of accumulated AE hits, the trend of the accumulated AE hits can provide useful information in evaluating the damage level of the corroded beam specimens. This trend may be attributed to the stressing and majority of cracking, especially longitudinal cracking along the steel reinforcement, which has already been dissipated by the steel corrosion.

![Fig 3. Accumulated AE hits versus load level (%) of beam specimens](image)

The correlation between accumulated AE hits and ultimate peak load or ultimate strength is shown in Figure 4. A decrease in ultimate strength was linear with the decrease in accumulated
AE hits of the specimens. The ultimate strength and accumulated AE hits were controlled by the corrosion level of the beam specimens. The R2 of the linear graph is 0.5055.

![Graph showing the relationship between ultimate peak load and accumulated AE hits.](image)

**Fig 4.** Accumulated AE hits against ultimate peak load of beam specimens

### 3.2 RA Value and AF

Figure 5 shows RA value vs. AF distribution of the AE data at every 1 kN increment load. The RA value is defined as the ratio of the waveforms rise time to the amplitude, as shown in Equation 6. The AF feature is calculated from the number of thresholds crossing of waveforms divided by duration, as shown in Equation 7. Based on the linear regression for each data group, it is suggested that as the corrosion level becomes higher, there is a collective increase in AF and a decrease in RA value of the beam specimen. It also indicates the beam's transition dominating fracture type, which shifts from shear crack to tensile crack. However, there is a decrease and increase in RA value for the highest corrosion level due to the beam specimen's shear crack progression.

RA value = \( \frac{\text{Rise Time}}{\text{Amplitude}} \)

Average frequency = \( \frac{\text{Counts}}{\text{Duration}} \)

![Graph showing the relationship between RA value and AF.](image)

**Fig 5.** RA value and AF of the concrete beam specimens
3.3 Linear Discriminant Analysis

The description of data used for the classification of LDA is tabulated in Table 1. The data are obtained from the AE parameters, i.e., the RA value of the concrete beam specimens. The data are classified into four classes based on the corrosion levels of the beam specimens. Class 1 is for S0, class 2 is for S10, class 3 is for S20, and class 4 is for S25 beam specimens. For LDA classification data, each beam specimen is classified into four classes based on the LDA class. The LDA was applied to classify RA value data of the beam specimens. Table 1 shows the classification results of LDA. In this study, a system uses validity measures of the test with four classes.

Table 1. Data classifications to test system of LDA

<table>
<thead>
<tr>
<th>Beam Specimens</th>
<th>Class 1</th>
<th>Class 2</th>
<th>Class 3</th>
<th>Class 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>S0</td>
<td>6472</td>
<td>601</td>
<td>796</td>
<td>18</td>
</tr>
<tr>
<td>S10</td>
<td>2746</td>
<td>3272</td>
<td>1116</td>
<td>0</td>
</tr>
<tr>
<td>S20</td>
<td>1953</td>
<td>1367</td>
<td>1952</td>
<td>0</td>
</tr>
<tr>
<td>S25</td>
<td>1553</td>
<td>698</td>
<td>1070</td>
<td>232</td>
</tr>
</tbody>
</table>

Table 2 shows the classification of AF features of the beam specimens. The table shows that initially, the classified data are predominantly classified as a class they are. The S0 beam specimen failed in the shear crack, the high percentage of S0 beam specimen and Class 1 is assumed as shear crack. Overall, class 1 of the beam specimens are classified as a shear crack, and the class 2 to 4 are classified as tensile crack. Table 2 shows the classification data based on LDA data in terms of the type of crack. The S0 beam specimen dominant as shear crack while for S10, S20, S25 dominant as tensile crack. The type of cracks of the beam specimens is almost the same as the observations. More studies will be required to examine further the reliability of the LDA using other AE parameters.

Table 2. Type of cracks classification based on LDA

<table>
<thead>
<tr>
<th>Beam Specimens</th>
<th>Shear Cracks (%)</th>
<th>Tensile Cracks (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>S0</td>
<td>82.06</td>
<td>27.94</td>
</tr>
<tr>
<td>S10</td>
<td>38.50</td>
<td>61.50</td>
</tr>
<tr>
<td>S20</td>
<td>37.04</td>
<td>62.96</td>
</tr>
<tr>
<td>S25</td>
<td>43.46</td>
<td>56.54</td>
</tr>
</tbody>
</table>

4 Conclusion

Based on the observations of RA value vs. AF distribution of the AE data, it is suggested that as the corrosion level becomes higher, there is a collective increase in AF and a decrease in RA value of the beam specimen. It also indicates the beam's transition dominating fracture type, which shifts from shear crack to tensile crack. The classification data give information in terms of statistical features based on the correlation of the distribution data. Based on the beam specimens’ classification of the beam specimens’ RA value features, class 1 of the beam specimens are classified as a shear crack, and class 2 to 4 is classified as tensile crack. The S0 beam specimen dominant as shear crack while for S10, S20, S25 dominant as tensile crack. The
type of cracks of the beam specimens is almost the same as the observations. The promising results obtained in the analysis are proposed to classify the fracture type of the corroded specimens. Although the results obtained so far are encouraging, more investigations on theoretical and practical aspects are needed to indicate further the applicability of the corroded specimens' classification based on other AE parameters.

Acknowledgement

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References


Psychological Problems of Parents in Learning Assistance During Covid-19 Pandemic

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Mathematics Department, Universitas Islam Negeri Alauddin Makassar, 92111, Indonesia
Research and Development Center, Kementrian Agama Makassar, 90232, Indonesia

Abstract. Indonesian government issued a policy of e-learning system to replace offline learning during this global pandemic. Parents must be adaptable quickly, being companions or second teachers, although not all parents are prepared for this changing. The important to note is the ability to be mentors and the psychology of parents. The method used is the chi-square test with SPSS application. Respondents were 215 parents of students by a questionnaire instrument (G-form) at Sulawesi island in random sampling technique. By the results of this research in using the chi-square method, there is a relation between the readiness of parents in e-learning assistance with the psychological sides of parents, such as emotions, fatigue and stress in the case study of parents in Sulawesi island. This research can be improved by expanding the sample to all islands in Indonesia and also as an education for parents to provide the variety fun learning assistants for their children by the qualified psychological readiness.

Keywords: Online learning; psychological parents; chi-square

1 Introduction

The COVID-19 pandemic is an epidemic that is experienced for all countries in the world. Early March 2020, the President of Indonesia, Joko Widodo announced to all Indonesian people that the first confirmed cases of 2 Indonesians were positive for COVID-19. The COVID-19 pandemic has caused the economy in Indonesia to plummet. Not only has that, but the world of education also felt the impact of this pandemic [1].

Direct learning that has been felt in the world of education has turned into online learning. This was done to prevent the spread of Covid-19 in the school environment. On March 16, 2020, all schools in Indonesia implemented the online student learning method, known as the online learning system (online). Where in this case both teachers and students must prepare learning aids in the form of technology such as gadgets, laptops or computers [2].

The COVID-19 pandemic initiates a broad, sudden, and dramatic digital transformation in society [3]. The pandemic is forcing us to take a tremendous digital leap in children's primary education. This requires significant adjustments not only from children and their teachers, but also from their families. During the Covid-19 pandemic there is stress, emotional anxiety and even additional burdens for children, teachers and parents [4]. Public health researchers have raised concerns about the 2019 coronavirus disease (COVID-19) pandemic and further public
health responses will increase interpersonal stress and even risk of suicide [5]. The COVID-19 pandemic is a significant mental health threat among children [6]. In online learning, there are many negative effects, one of which is stress, many parents have high levels of stress thinking about their children [7].

This research aims to determine the relationship between the readiness of parents to assist their children in online learning with the psychological experiences (additional burdens, emotions, fatigue and even stress). For this reason, the chi-square test is used as a method that helps to determine which psychological (additional burden, emotion, fatigue and even stress) has a significant effect.

2 Method

2.1 Sample

This survey study was conducted on the island of Sulawesi with several respondents who were parents of students from various levels of kindergarten-junior high school. Overall the number of respondents was 215 people. The survey was conducted using the help of google form which is a small step to prevent the Covid-19 pandemic. The majority of them were aged between 37 to 43 years (39.53%), then those aged between 30 to 36 years (31.63%), those aged between 44 to 50 years (18.14%), a few were between 23 to 29 years (6.51%), few between 51 to 57 years (3.26%), very few between 16 to 22 years (0.93%).

Their jobs are also very varied: self-employed, state / private employees, civil servants, others and not working. Most of them have 3 children (38.60%), then they have 2 children (31.16%), few have 1 child (12.56%), few have 4 children (11.16%) and very few who have more than 4 children (6.51%).

2.2 Questionnaire

The questionnaire consists of three parts and includes 16 closed questions and one open question. Closed questions and rating scales provide a snapshot of parents' beliefs and attitudes about online learning. In contrast, open-ended questions allow parents to express their feelings, experiences, personal knowledge and suggestions regarding online learning.

Part I: Demographic information. This section has four questions. Table 1 is information about the sample regarding the age, occupation and number of children owned by the respondent.

Part II: Online learning during COVID-19. This section describes the status of children's online learning at home during the pandemic with 7 questions. Questions covered the experiences of parents as companions for children at home during the Covid-19 pandemic.

Part III: This section discusses several forms of psychological disorders experienced by parents in accompanying children to learn online during the Covid-19 pandemic which includes 4 questions about whether online learning is a burden, parents who are often emotional if they do not fully understand the material in mentoring online learning, parents who sometimes feel tired and stressful.
3 Results and Discussion

The method used in this research is chi-square. The chi-square test is a nonparametric test used to test the relationship or effect of two or more variables. This method analyzes categorical data. In this study, the aim of this research is to determine the relationship between the readiness of children's mentoring in online learning with: a. parents feel that they are an additional burden, b. parents become emotional, c. parents sometimes feel tired, d. make parents stress in terms of sharing time, understanding learning materials, cooperation with children, finances.

H0: There is no association between readiness for mentoring and Psychological parents (additional burden, stress, tired, emotion)

H1: There is an association between readiness for mentoring and Psychological parents (additional burden, stress, tired, emotion)

Then, association between readiness for mentoring and psychological parents (additional burden) is presented in Table 2 as follows.

Table 2. Association between readiness for mentoring and psychological parents

<table>
<thead>
<tr>
<th>Actual Data</th>
<th>Psychological parents (additional burden)</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Readiness for mentoring</td>
<td>Yes</td>
<td>156</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>22</td>
</tr>
<tr>
<td>TOTAL</td>
<td>178</td>
<td>37</td>
</tr>
</tbody>
</table>

Then, expected value association between readiness for mentoring and psychological parents (additional burden) is presented in Table 3 as follows.
Table 3. Expected value association between readiness for mentoring and psychological parents

<table>
<thead>
<tr>
<th>Expected</th>
<th>Psychological parents (additional burden)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Readiness for mentoring</td>
<td>154.82</td>
</tr>
<tr>
<td>No</td>
<td>23.18</td>
</tr>
</tbody>
</table>

\[ \chi^2 = 0.402 \] (1)

We fail to reject the null hypothesis or in other words we accept our null hypothesis and conclude that there is no association between readiness for mentoring and psychological parents (additional burden): 2, 70. 100% online learning makes parents support, facilitate and report children’s progress to the teacher. Parents don’t assistance their children in online learning is an additional burden [8]. Then, association between readiness for mentoring and psychological parents (stress) is presented in Table 4 as follows.

Table 4. Association between readiness for mentoring and psychological parents (stress)

<table>
<thead>
<tr>
<th>Actual Data</th>
<th>Psychological parents (stress)</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Readiness for mentoring</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Yes</td>
<td>128</td>
<td>59</td>
</tr>
<tr>
<td>No</td>
<td>24</td>
<td>4</td>
</tr>
<tr>
<td>TOTAL</td>
<td>152</td>
<td>63</td>
</tr>
</tbody>
</table>

The COVID-19 pandemic has caused significant stress and emotions for many parents around the world [9]. Then, expected value association between readiness for mentoring and psychological parents (stress) is presented in Table 5 as follows.

Table 5. Expected value association between readiness for mentoring and psychological parents (stress).

<table>
<thead>
<tr>
<th>Expected</th>
<th>Psychological parents (stress)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Readiness for mentoring</td>
<td>132.20</td>
</tr>
<tr>
<td>No</td>
<td>19.79</td>
</tr>
</tbody>
</table>

\[ \chi^2 = 3.504 \] (2)

We reject the null hypothesis or in other words we accept our null hypothesis and conclude that there is an association between readiness for mentoring and psychological parents (stress). Parents of school-age children have felt the drastic changing due the COVID-19 pandemic that caused the moderate stress level [10]. Then, association between readiness for mentoring and psychological parents (tired) is presented in Table 6 as follows.

Table 6. Association between readiness for mentoring and psychological parents (tired).

<table>
<thead>
<tr>
<th>Actual Data</th>
<th>Psychological parents (tired)</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Readiness for mentoring</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Yes</td>
<td>128</td>
<td>24</td>
</tr>
<tr>
<td>No</td>
<td>59</td>
<td>4</td>
</tr>
<tr>
<td>TOTAL</td>
<td>187</td>
<td>28</td>
</tr>
</tbody>
</table>
Then, expected value association between readiness for mentoring and psychological parents (tired) is presented in Table 7 as follows.

**Table 7.** Expected value association between readiness for mentoring and psychological parents (tired).

<table>
<thead>
<tr>
<th>Expected</th>
<th>Psychological parents (tired)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Readiness for mentoring</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>No</td>
</tr>
</tbody>
</table>

$\chi^2 = 3.504$ \hspace{1cm} (3)

We reject the null hypothesis or in other words we accept our null hypothesis and conclude that there is an association between readiness for mentoring and psychological parents (tired).

Then, association between readiness for mentoring and psychological parents (emotion) is presented in Table 8 as follows.

**Table 8.** Association between readiness for mentoring and psychological parents (emotion).

<table>
<thead>
<tr>
<th>Actual Data</th>
<th>Psychological parents (emotion)</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Readiness for mentoring</td>
<td>Yes</td>
<td>103</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>22</td>
</tr>
<tr>
<td>TOTAL</td>
<td>125</td>
<td>90</td>
</tr>
</tbody>
</table>

The COVID-19 crisis has contributed to the increase of the emotional of parents [11]. Then, expected value association between readiness for mentoring and psychological parents (tired) is presented in Table 9 as follows.

**Table 9.** Expected value association between readiness for mentoring and psychological parents (emotion).

<table>
<thead>
<tr>
<th>Expected</th>
<th>Psychological parents (emotion)</th>
<th>Yes</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Readiness for mentoring</td>
<td>Yes</td>
<td>108.72</td>
<td>78.28</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>16.28</td>
<td>11.72</td>
</tr>
</tbody>
</table>

$\chi^2 = 5.520$ \hspace{1cm} (4)

We reject the null hypothesis or in other words we accept our null hypothesis and conclude that there is an association between readiness for mentoring and psychological parents (emotion).

**4 Conclusion**

Online learning has become increasingly popular since the Covid 19 pandemic to continue our education system. Parents also have to adjust quickly to solve online learning problems. Among the many advantages, online learning also has a negative impact, from the results of
research conducted on the island of Sulawesi with 215 parents as respondents, it turns out that there is an association between readiness for mentoring and psychological parents (stress, tired, emotion) except additional burden. the feeling of emotion that is felt by students is also transmitted to their parents also increased stress and extremely tired on parents.

References


The Role of Human Resources Management Builds Knowledge Management in the Situation of Increasing Employees Voluntary Turnover (Case study in the Production Division of an Indonesian National Private Television Company 2019-2020)

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Abstract. The high voluntary turnover of the company is a phenomenon which is commonly found in the company. It is one of serious problems causes number of qualified employees choose to leave the company. A number of company memories in the form of tacit knowledge are lost because a number of employees move to another company. The paper aims to describe the activities of human resource management (HRM) in creating a special strategy in documenting and disseminating tacit knowledge. The study uses qualitative methods for case studies, primary data is obtained from field notes and in dept interviews and observations. A sampling technique is conducted by purposive sampling and selecting 10 informants from HRM Division. In obtaining more comprehensive findings, the researcher involved 2 (two) production managers as key informant. The strategy carried out by HR managers to build a knowledge management system is not yet structured. Therefore, human resources management in that company need to design specific programs which can give added values to the company so that some knowledge can be documented and thus become assets in improving competence for employees.

Keywords: Continuous learning, knowledge management, knowledge management strategy, voluntary turnover.

1 Introduction

Knowledge Management (KM) is an organizational activity to manage knowledge. Knowledge is characterized as a form of asset that is compiled and developed and distributed to employees so that they interact with each other, share knowledge and apply it to work to improve organizational performance. The above facts show that knowledge management has been aligned with other resources that are equally important in influencing the company's competitive advantage. KM is considered a strategic resource for all types and sizes of organizations.

However, maintaining and managing assets is not an easy task, especially in the national private television company X which has 1,200 employees. In the past year, 2018-2019, there was a 10 percent increase in the number of employees who resigned in 3 positions, namely cameraman, editor and content creator. Lately, many young people are trying their luck, especially artists opening a business to become a YouTuber. This business is a new field for
young people, especially those who have a spirit of creativity, entertaining and high fighting power. For an artist who deals in the world of presenter and entertainment, this business is a promising business. They need cameraman, editor and content creator. Artists easily contact television employees they known. For television employees, especially cameramen, editors and content creators, offers to work at well-known artist’s company are an opportunity to get new experiences in developing creativity, especially since there is a higher amount of compensation available and more flexible working hours offered differently from previous company. The heads of this private television company felt that the ideas that had been proposed were lost with the layoff of employees. The high employee turnover rate can cause the company to lose costs [1]. The turnover phenomenon makes HRM Division do a strategy so that productivity in the company does not decrease.

It is not easy to change employees as needed at once, when employees who have worked for at least 2 or 3 years leave, new employees work for a few months who are left still filled with worries about continuing a good program. They need assistance in strengthening the existence of old programs and creating new programs. They have not had the chance to learn many things from their seniors, they have not done and shared documentation of the knowledge obtained from training, seminars and workshops attended by employees, the senior has already resigned. Voluntary turnover at television media company is a challenge for company to create an effective knowledge management strategy.

This event is important to research and explain related to the strategy of the HRM division and leaders in the production division to manage knowledge management in employee turnover situations. There are quite a lot of writings on this theme in the world of research, but they explain different themes. Some of the previous studies include Empowering leadership in management teams: Effects on knowledge sharing, efficacy, and performance and Why Knowledge Management Is Important to the Success of Your Company describes the importance of knowledge management (KM) and the building process [2][3].

This paper also describes the collaboration of the HRM division and leaders in building sustainable learning and managing knowledge management. In this research, the researcher explains the management of knowledge management from the perspective of sub-themes, on the job training, job crafting, job shadowing, regular meetings, socialization of facts. The results of this study show that the HRM division manages knowledge management quite well in creating knowledge, using knowledge and sharing knowledge, but unfortunately does not have a knowledge management system that is integrated and structured, especially in maximizing technology in documentation.

2 Method

Qualitative methods with the case study approach is the preferred approach to explain an event in one of the production divisions of a media company private x related to how the strategy HRM Division in building knowledge management in the company in a constant turnover condition [4].

A total of 10 people were assigned to be informants and 2 key informants. They were selected by purposive sampling and snowball sampling. The HRM division was chosen to be the main informant because they knew and carried out the strategy to build knowledge management, while the 2 key informants in production were people who were involved in helping human resource managers build knowledge management. At the beginning the
researcher determined 8 main informants, but some information related to the internal information system needed to be clarified so that the researcher needed to add 2 informants. And for the 10th informant, all the information is sufficient, especially there are 2 key informants who provide additional information to clarify the information needed.

The research step begins by observing activities related to knowledge management, paying attention to on-the-job training, socialization and evaluation conducted by supervisors. During the search for initial data in the field, the researcher recorded information and gave questions to both the HR manager and several employees who were participating in the activity. During the process of obtaining data in the field the researcher continuously triangulates, if there is data that does not match between the results of the observation and the initial interview, the researcher asks, taking notes and collecting notes into questions that will be asked during the interview to the next informant. An interview guide was prepared to help researchers’ direct informants to be more productive and involved in group discussions [5]. Researchers used interview guidelines that contained general questions and, in the field, developed them into specific questions [6].

To obtain this information the researcher interviewed 10 members of the human resource management and 2 heads of departments in the production division and analyzed the results of the documentation study. Researchers clarify until things that are less clear can be well confirmed. After the data is collected, transcripts are made and continued with data reduction with the process of selecting and focusing attention on simplifying and coding the data by sorting thematically represented and divided into small units (phrases, sentences, or paragraphs), the units are grouped into code [7] and create memos [8]. The findings were discussed with all informants and key informants in a focus group discussion.

3 Results and Discussion

3.1 Results

Some activities in managing knowledge management are carried out by the HRM division in collaboration with production leaders. Ideally, according to one Human Resources staff, on the job training is carried out if the number of new employees is at least 20 people. Therefore, if they do not meet the quota, new employees wait until the number of employees is approximately 20 or they take on the job training independently with stages that have been arranged according to schedule.

From the results of interviews with the HRM Division, every new employee is required to attend the socialization with materials including; company regulations, corporate culture, organizational structure, job description, at that time they not only signed attendance but were given a discussion room and asked to provide a statement that they understood the content of the socialization. It is important to explain this so that new employees understand their roles, rights and obligations. Together, all employees build behavior to create a strong organizational culture. The activity was continued with mandatory training for 2 weeks where new employees received general knowledge related to the company’s business and the A to Z production process of program development.

After participating in mandatory training, employees return to their actual jobs. They are placed in positions according to the agreement at the beginning of the work contract. They were given an explanation of the roles and responsibilities as well as the rules of do and don'ts
as well as explained on the freedom to choose the work process. All aim to provide room for psychological well-being intervention. Then they continued with 2 weeks of training in class to learn the obstacles and barriers to System Operating Procedures between work units.

On the sidelines of on-the-job training activities, new and old employees hold meetings. In these meetings, new employees and old employees are informed about things that need to be improved so that their discussions with each other occur. The meeting is held every 2 weeks and is attended by all new employees and old employees according to their schedule and field and one of the Human Resources staff is an observer at the meeting.

In the fourth month, each employee is rotated to another division but is still within the scope of his division. For example, the production department has 6 areas, namely the talent artist, creative person, production assistant, cameraman, editor. They are assigned to the six sections of the field according to a predetermined schedule. In the fifth month they make a report and present what they have found and done for 5 months to their superiors and are observed by Human Resources staff. This result is also their assessment so far. In the sixth month the compilation of their reports becomes documentation and becomes a consideration for making better syllabus and methods. For 6 months, new members are monitored and given the opportunity to consider the appropriateness of their values with those of the company.

One important finding in the field shows that the Human Resources Management (HRM) Division neglects the structured documentation process. They don't seem to prioritize formally writing down and documenting all new employee input in detail. From interviews with the HRM Division that they have not documented the thought, crucial work processes into one permanent concept. But they immediately apply the things that are renewed through direct action. They feel that the examples of programs that have been produced can represent examples to be directly discussed into new knowledge. However, some integrated documentation related to the writing and video delivered in the electric-bulletin is not yet available in a structured manner and has not been broadcast and enjoyed by employees so that knowledge sharing cannot take place anytime and anywhere. Employees have not been able to access and read freely so that their knowledge can increase at any time.

3.2 Discussion

Knowledge is an important organizational asset. Knowledge in organizations is a core competency that shows the competitive value of the organization [9]. As organizational competitiveness is getting faster, managing knowledge is one of the strategies to achieve organizational performance. These efforts are made by fully utilizing information and data combined with all the skills, ideas, commitment and motivation of employees in an integrated manner into company investment. Knowledge Management in organizations supports organizational growth and development [10].

The activities of managing knowledge management developed by the HRM Division in collaboration with the Production division are carried out through several major activities, namely on the job training activities. On the Job training, training in which employees or prospective employees are placed in actual working conditions, under the guidance and supervision of experienced senior employees or a supervisor. The purpose of on the job training is to provide hands-on experience, especially for new employees in introducing the competencies needed to carry out work [11]. In these activities, employees can observe the work that is their responsibility and do the work repeatedly so that they are able to master the work and can explain and do their work themselves without supervisor guidance and in the end can increase their confidence. On the job training also has an effect on training costs incurred as
well as more efficiency and faster knowledge transfer. The high voluntary turnover situation makes this activity an effective solution for this media company.

In on the job training, there are a series of activities, including socialization, namely activities to equip employees to internalize organizational values into their behavior to produce jobs [12]. Socialization and internalization activities can be foster a more professional working attitude because they have a comprehensive understanding of the culture, vision & mission, and organizational values, equalize perceptions about the direction, goals and targets of the company in the future according to the company's vision and mission and increase leadership skills, a sense of belonging and a sense of responsibility responsible and foster harmony within the company by increasing a sense of togetherness and a positive mental attitude.

When employees carry out their roles at the beginning, they work to adjust the job description, but the leadership encourages they develop a learn and learn process so as to give birth to the development of new ideas quickly and generate new work experiences, and have an impact on the formation of employee fighting skills and ultimately increase job satisfaction. This activity is called job crafting where leaders can encourage to expand work tasks, both physically and cognitively. The experience of employees making updates when running new programs and changing programs every episode. Job crafting becomes an individual policy and focuses on changes in a positive direction and increases independence.

In job crafting activities, a new knowledge is obtained from the notes compiled by the field of development, the results of these notes are considered as training materials, both technical materials and soft skills. And the HRM Division can make training and development priority scales that are previously held and discussed with leaders in the production division. Apart from job crafting, the management of the HRM division and technical leaders designed a well-planned job shadowing system. Job shadowing is mandatory for every new employee. After participating in this activity, they can stimulate the willingness and motivation of employees to increase their competence and the organization [13]. This activity accelerates new employees to know the organizational culture, work unit culture so as to strengthen knowing the production process they learn administrative processes.

The shadowing process makes them even more ready to do their job. Job shadowing makes employees get more and faster variations of knowledge and become familiar with several methods processes and work methods that have never been known before in his work [14]. It is widely recognized that job shadowing creates job involvement that has an impact on a positive state of mind marked by enthusiasm, dedication, and absorption. Schaufeli [15] improved in the work environment as it offers and introduces a fair number of new challenges and resources [16]-[19].

Several knowledge management activities in the production division unit show a transformation of knowledge routines in the organization where there is a transfer of tacit into explicit knowledge from organizational members to organizational members [20]. In addition, knowledge management in the production division is processed through the socialization process stages, mandatory training, job crafting and job shadowing, meeting activities. Meeting activity is a knowledge sharing platform that contributes to the exchange of knowledge and experiences among employees [21]. Knowledge sharing can be defined as the process of sharing ideas, information, and tasks that are relevant to the task among team members [22].

All of these activities show that the HRM division is discovering, capturing, sharing and applying knowledge in order to increase knowledge to achieve organizational goals in a cost-effective manner [23]. From several activities, it appears that the media company has built its assets by developing it and implementing competitive strategies that provide great benefits for knowledge in the company, even though in the event of high employee turnover voluntary The
The strategy carried out by the HRM media division is in line with Tung's strategy such as [24]. (1) keep knowledge from being lost in the event of a transition or resignation of an organization member; (2) minimizing the possibility of data loss; (3) identify critical areas of knowledge sources so that the company knows what the employee knows, even though the employee has left; and (4) developing tools and methods to capture and store knowledge. The application of knowledge management assists organizations in optimizing the intellectual assets of the organization with the aim of increasing employee competence, improving systems and procedures, and gathering knowledge from internal and external organizations, to become organizational intellectual property [25].

However, the fact in the findings is that there are limitations in storing knowledge that is easily accessible to every employee, such as the experience of senior employees in the ups and downs of creating systems. This limitation is because there is no special area that deals with knowledge management. At that time the KM area was combined with the training and system development area, even though this area became very important, especially since this media company had more than 1000 employees. The size of the business needs to be adjusted and aligned with business strategy, and the management of human resource system development, which includes designing the exchange of knowledge between employees as well as translating it into an information technology system so that it has an impact on increasing competence even though the company experiences employee changes [26].

In managing knowledge, organizations need a knowledge management information system (KMS) that provides features and tools for capturing, organizing and managing knowledge [27]. KMS is a knowledge-based information technology system to support knowledge creation, management and dissemination to employees within a company or organization [28]. Therefore the existence of KMS is encouraged through appropriate organizational policies (e.g. reward systems) and facilitated through appropriate organizational infrastructure (e.g. communication information systems) [29]. Efforts must be made and awareness created to ensure that employees understand the benefits of sharing knowledge [30].

From the knowledge management process which includes on the job training, socialization, job crafting, job shadowing, there is a strong growth in collective intelligence, even though the conditions in this company are marked by high voluntary turnover, which is known as continuous learning competence is getting better [31]. Continuous learning is a mentality and behavioral routine that reflects a belief and dedication to learning and change. Meanwhile according to [32] Organizational learning is considered as an organizational ability to create, acquire, interpret, transfer and share knowledge aimed at modifying behavior to describe new knowledge and insights.

4 Conclusion

The strategy to build knowledge management in Media Company is carried out through several activities, but the main activities are based on on the job training. On the job training activities that are believed to build knowledge management effectively and efficiently. On the one hand, it can integrate several KM activities, from discovering, capturing, sharing, and applying.

The collaboration between the HRM Division and the Production Division is also directed, there are many benefits gained from this collaboration, especially the increased competency of continuous learning and signature experiences for all employees in the company. The HRM
division can improve the training module and the KM sharing system practically works well. However, the HRM division is expected to be able to develop and take full advantage of technology, have a work unit.

References

Design-Based of FBFRP-Technique in Writing Computerized English Essays in the Light of CTL Method

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Abstract. Students and test takers of iBT faced difficult problem in solving how to write a full English Essay of different genres in 30 minutes with minimum 250 words. The designed technique facilitates students and test-takers how to write such essay in 30 minutes, but the result meets the standard ideal iBT TOEFL test model. The technique is called Forward-Back Forward Revising and Publishing (FBFRP) Technique. The designed is under the learning principles of CTL: critical creative and self-regulative thought. This study is 1) to provide a technique that can help students and test takers to develop their computerized-based English Essay effectively in 30 minutes, 2) to describe how the procedure of FBFRP technique work in writing computerized-based English Essay, 3) to shows readers how FBFRP technique was developed and validated. This is a research and development adopted by Borg and Gale (2003), Formative Evaluation taken by Tesmer (2013) self-evaluation, expert review, one-to-one, small group, and field test. The outcomes are 1) a technique that can help students and test takers called “FBFRP Technique, 2) a description or underlying principles of how FBFRP technique work in writing computerized-based English Essay, 3) the process of how FBFRP technique was validated. The product is applicable across disciplines in ELT or ESL context as an instructional tool, particularly for Academic writing course, and real test of internet-based TOEFL test takers.

Keywords: English, computerized essay, CTL; FBFRP technique; iBT TOEFL

1 Introduction

It has been a need to contribute a systemic solution to the problems of writing computerized-based essay faced by test takers of iBT TOEFL, and teaching purposes. The recent issues in writing skill reported that writing skill or ability was still a subject to concern. Many of Indonesian test-takers in the iBT TOEFL achieved insufficient score to meet the standard requirement [1]. This also happened to the students enrolled at Essay Writing course [2] where the researcher taught.

Reports showed that the problems faced were respectively from the highest to lowest one; mechanics, grammar, content, organization, and vocabulary [3]. Beyond writing types, the essays’ scores of the Indonesian were average. Scholar reported the students’ writing performance on TOEFL iBT and in required university writing courses [4, p. 20]. They claimed that there was correlation among whole dimension of the quality of academic writing tasks and academic writing course.
Prior to this study was also reported by the scholars in different focus. Under the concern of the trends of designing e-learning and synchronous learning [5][6], the researcher dared to create this technique as a solution. This study is to contribute a research that examines correspondences between tasks in high-stakes assessments and the TLU domain. The study focuses on two stakeholder groups that are affected by test uses: students and instructors [7, p. 97].

In a broader coverage, English Testing Service (ETS) [1, p. 22] reported that the average scores of the Indonesian test-takers among countries was 21 of 30 iBT scores for both computerized integrated writing and independent writing task written in 55 minutes in total. Similar report showed that the average score was 22 of 30 maximum scores [4][8]. Other reports of essay’ scores of iBT had a commonsense that the scores of essays remained problems [9], [10] and the average was in high-intermediate (17-23 of 30), including Indonesian’s test-takers of iBT [1].

A similar study was conducted in Korea [11], nevertheless the focus was on the degree and types of difficulties, correlation, and perception by both test-takers and teachers. In addition, some scholars recently focused on developing other skills and assessment rather than writing production. Sathya (2013) reported the result of his study “Developing an E-Content Module on the poem [12]. Foley reported her study on the four skills; “Developing Academic Writing”, whereas Wullur [13] reported their R and D in the productive skills: “Developing an English Performance Test” [13]. All of these studies have left great potential gaps for the current study. Therefore, the discrepancy must be answered. Lastly, this research is a follow of inquiry of the prior scientific research [14]-[16]. This is why he had created a technique to overcome those reported problems.

In brief, this study focused on developing a certain technique in enhancing the students’ achievement in computerized English essay writing [16, p. 23].” So, this study is also under the lesson learned from empirical studies comparing handwriting and keyboard writing [17] henceforth, the study emphasises on three aspects.
1. To provide a technique that can help undergraduate students and test takers of iBT develop their computerized-based English Essay effectively in 30 minutes.
2. To describe how the procedure or underlying principles of FBFRP technique works in writing computerized -based English Essay based on CTL principles.
3. To shows readers how FBFRP technique was developed and validated.

The final outcomes:
1. A technique that can help students and test takers of iBT called “FBFRP Technique write two types of essays effectively.
2. Descriptions or underlying principles of how FBFRP technique helps students and test takers of iBT in writing computerized -based English Essay based on CTL principles.
3. Reported the process of how FBFRP technique was validated by the model of Tessmer (2013).

The reason why a technique is created is various. He believes that this technique may promote good impact on the learners’ achievement in context of education and the test takers in the context of a real test. Scholars reported that ‘Self-Regulated Strategy Development (SRSD) and Automated Writing Evaluation (AWE)” were found to be effectively helping the learners [18]. This study also provides initial evidence that, as part of a program of writing instruction, AWE is associated with increased writing quality compared to writing instruction alone [18, p. 266]. For that reason, a variant technique is proposed to use.

To end this, the proposed technique is called “Forward Back Forward Revising and Publishing Technique (FBFRP).” It emerges the wished condition in which the best essay results
in a test has to meet an ideal criterion of an essay component; “format, grammar, vocabulary range, structure of the essay, punctuation, unity and coherence” [19, p. 18]. Lasty the creation of this technique is also under a consideration of digital and age and the impact on learning [20]. Accordingly, he is convinced this technique can make both undergraduate students and iBT-TOEFL test-takers cover all the required criteria in the curriculum and iBT framework score criteria.

Above all, the outcomes reveal contribution to the science and technology by creating this technique and be used the Indonesian undergraduate students and iBT test takers in particular and for the entire globe.

1.1 Technique in Teaching

As a non-native speaker (NNS) of English, the researcher was often confused with the use of these terms: method, technique, and approach. For that reason, he clarified the proposed term by referring to some sources [21]-[23].

In his view, what is meant by an approach method in this context is what is proposed by [23] saying “a set of assumptions dealing with the nature of language, learning and teaching,” whereas method is “an overall plan for a systematic presentation of a language based upon a selected approach” and a technique is “a specific activity manifested in the classroom that were consistent with a method and therefore were in harmony with an approach as well” [23, p. 14]. To make it clear, he meant FBFRP technique as a technique.

Since the term is clear, he had better discuss the criteria of a good teacher than debating endless points in the perspective of NNS. Accordingly, he summarized some good criteria of a teacher outlined by Harmer [24]-[26]. They have to have at least the following criteria: “attractive, create interesting materials, has broad knowledge out of his expertise, correcting without blaming, help his students rather than mock them (p.1-2.). The embodiment of the criteria is referred to an approach, method, and technique.

The researcher believes that his actions to develop a certain technique refers to a method called Contextual Teaching Learning (CTL) as proposed by scholars [27]-[29]. It is bounded to the three definitions: approach, method, and technique [23]. Consequently, the method in this context is not the one perceived by the Indonesians scholars as a technique, but a technique proposed by a native speaker of English or at least what Brown quoted. It has also similar meaning as proposed by some scholars. It is equivalent with strategies or tactics [30, p. 115]. Crediting them he is certain that their terms was a technique in English instructional.

Upon all, a technique in this context is a specification of this research so that the result will be met with the Brown’s argument. That is why he insisted on developing a technique not a method because a technique is specific and more visible in the teaching process while method is broader and philosophical. When creating a method, some thoughts have to consider. They cover belief, assumption, and approach; learning theories such as naturalism, behaviorism, or nativism; psychological theory; and what materials for the developing technique. While a method is more theoretical rather than practical. That is why the researcher insisted that the created prototype was a technique or a procedure but not a method.

Referring to the five considerations, he is interested to develop a technique due to several reasons; it is more procedural, more applicable, and more practical, more logical, and specific. These reasons have led him to do research in the area of research and development believing this technique can answer or be a solution for the test takers. It is also believed to help other users in specific and for the students at university level in general.
1.2 The principles of Contextual Teaching Learning in Instructional Process

Teaching essay writing may use many other techniques under the principles of a method or a technique; one of them is with Contextual Teaching Learning [27], [31]. Contextual Teaching Learning (CTL) has specific characteristic of philosophy pertaining to the English essay writing. The philosophy covers meaningful connection, self-regulated learning, and collaborating, critical and creative thinking, reaching high standards of learning process. Of all principles above each of which was projected to have a specific role based on the four stages of FBFRP Technique.

Meaningful connections [32] were projected to use in the stage forward in which all the composed sentences had to be meaningful and inter-connected because its single sentence would be the reference for the entire supporting details.

Self-regulated learning [33] [34] was projected to master the graded steps in writing essay as a whole organized in FBFRP technique. This means that in every stage the learners monitor their development of writing essay based on the whole process of FBFRP without any help from outsiders such as teacher, mentor, or lecturer especially when they are taking the real test of computerized test.

Research in this field has reported that a self-regulated learning is positive [35]-[37]. The study on Self-Regulated Strategy Development (SRSD) with an Automated Writing Evaluation (AWE) system can be effective in teaching students argumentative writing [18, p. 266]. This is a confirmation that a technique is an adhesive aspect in every teaching process.

The next step is “collaborating” [38] it is projected to use in the stage of revising. In this sense, the learners can do what is so called “peer revision,’ and ‘teacher revision after a self-revision process.” However, this stage was limited to the situation where the learners were learning or doing an assignment. In the real test of computerized essay test, both of peer and teacher revision are omitted. Research in collaboration has shown a great influence of the learners’ achievement [38][39].

Then, it is to have “critical and creative thinking.” Being critical and creative thinker means to have such kind of behaviors such as expansive, innovative, inventive, unconstrained thinking while creative thinker means to have such kind of mental mode such as focused, disciplined, logical, constrained thinking [40, p. 1]. Both of these have bivariate relationship [41]. Both of these features of CTL were hoped to use in the second step of forward which is in the third step of whole FBFRP. Research in how important of CTL to teaching writing has been numerously report [27].

In this context both are meant to use in composing the supporting details. Composing them, in fact, needs a critical and creative thinking [42]. As the result, composing supporting details will enhance the high standard of a good English essay products or at least successful writing proficiency [43]. Thus, the whole of this technique was hoped to meet the high standards of the students’ final work.

Lastly, to wrap those principles, the researcher embedded effective, accurate and comprehensive as the thread read in writing essay. Effective means using the given time maximum, accurate means ingenious in choosing diction and syntax, while comprehensive means all the related things are covered effectively. So, the three principles are the spirits of the adopted CTL principles in the current study.
1.3 Teaching Technique and Writing Essay at Universities

Essay writing teaching techniques implemented by any teacher-educator authors (TEAs) including his personal experiences both as a graduate student and a lecturer. However, he found poor choice of techniques with which the taught students could produce sufficient English essay products. He faced a limited number of techniques such as free-technique, scaffolding technique, three steps technique or even with other conventional technique.

Those implemented techniques; however, did not make and meet the ideal criteria for students to get average score 70 of 100 scale and 90 % of the essay test-takers passed successfully [2]. Accordingly, he believed and argued that those implemented techniques did not meet Brown’s criteria namely "brainstorming, working in group, free writing, and the drafting and revising [23, pp. 348–350]." In composing the writing instructional, he referred to an essay process recommended by Brown et al with the following principles: (1) incorporating practices of “good” writers, (2) balancing process and product, (3) accounting for cultural and literary backgrounds, (4) connecting reading and writing, (5) providing as much authentic writing, and (6) being you are your technique in terms of prewriting, drafting, and revising stages [23, pp. 348–350]. All of these bases are counted in a hope of providing a better product of essay writing.

Unlike the FBFRP Technique, a scholar suggested the six-step guide to writing as summarized in the following points; getting ideas, choosing or selecting the ideas, outlining, drafting, revising, and editing [44, p. vii]. These tips are assumed to be the whole process of how to get success in writing essay. On the contrary, the researcher steps in a further phase are unlike the Greenville but how to develop the clear idea into a good writing piece. Thus, the recommended steps by Grenville are in the different stage of writing although to some extent it is alike.

Other scholar formulates the writing process into several phases; “pre-writing, drafting, self-revising, peer adult revising, editing, and publishing” [45, p. 42]. The processes seem to be comparable with that of the researcher’s formula. Both promote revising and publishing although they are set for different process and purpose. Thus, both Grenville and Sundem mean the different things laid in the same terms with the authors.

1.4 Essay Materials at Higher Education

The increasing studies on investigating the essay product has been reported in many journal articles. Some studies applied Toulmin Element to investigate coherence [46][47]. Another study focused on timed argumentative essay [2][48]. Some others reported the essay based on moves [49]. All the empirical works focused on various aspects.

Essay writing in the context of the researcher was a main course for students who were at seven semester and was a part of required elective course. This course was also a common subject at English Department although the name of the course might be different. This course was further a perpetuation of writing 1, to writing 4 [16].

As a part of academic writing, it requires certain skills. Hogue proposes that these skills include “sentence structures or how to arrange words in a sentence, an organization or how to arrange ideas in a paragraph, and, of course, grammar and punctuation [50, p. 2]. Thus, writing essay has to be well prepared and programmed so that it can result a good outcome of an essay writing product [51]. A good essay has accurate sentences or good grammatical structures. The accuracy is absolutely needed because an essay quality is determined by its level of accuracy [52][53].
The proposed competences for the students are able to 1) express any idea in a written text with various diction and correct grammatical aspects, 2) develop any different text with different genres such as descriptive, opinion, argumentative, discussion, cause and effect, comparison and contrast, process or procedure hortatory, expository and report essay, 3) put the skills of essay in the context of academic writing and scientific research through a set of process of paraphrasing, summarizing, and note-taking [54].

The objectives of this course were to provide the enrolled students with the following outcomes. They were hoped to 1) master the skill of writing essay at advance level, 2) develop all required genres ended with a portfolio, 3) finish their undergraduate thesis or what is locally called “script” as their culmination process of study. In other words, an essay course was aimed at enhancing the students with high Language proficiency for writing [30]. Whereas the availability of the technique was to make the learners play a clear role in interactional activities, learner-centered method, learning centered methods, not in “teacher-centered methods [55].

1.5 The Result of Essay Instructional at Higher Education

The result of teaching essay process referred to the score gained by the students after taking essay course taught in conventional techniques. Looking back to the documents in the researcher context, until the 5 passed years, the result was still in average level or equivalent with satisfactory in the qualitative grades. However, due to limited researcher in Essay study, the research findings of the same interest are not considered.

To make the expected outputs of this study, some research questions are set up. Thus, the research is called Developing FBFRP Technique in writing computerized English Essay or called “Forward Back Forward Revising and Publishing (FBFRP) technique.”

1. What is the form of a technique that can help test takers or essay writers develop their ability to write an essay in short, limited time?
2. How does the procedure or underlying principles of FBFRP technique work in boosting the test takers of computerized English essay?
3. How is the FBFRP technique validated by the Tesmer’s Formative Evaluation?

2 Method

2.1 Design

The research design was research and development [56] with further technique through validation process of [57] called “Formative evaluation.” It was used to validate the technique called Forward Back Forward Revising and Publishing (FBFRP) Technique. The process of product validation went through self-evaluation, expert review, one-to-one, small group, and field test. The small-scale field test was carried out and the large scale of field test would be after the publishing of this paper.

2.2 Materials or Participants and Setting

The self-evaluation was resulted from a survey and the result was arranged in form of some questionnaires and assigned in the method. This questionnaire was then spread over the enrolled
students on the basis of Tessmer procedures. The instruments consisted of 10 questions with 3 aspects to rate on the basis of Likert Scale.

This research was carried out in English Department of Universitas Muhammadiyah Metro. 70 participants took part; 20 male and 50 female students of all semester enrolled in English essay writing course. They had different level of English proficiency and length of their study. However, they had a commonsense in that they were required to take writing course 1 to 4 and ended with essay writing.

2.3 Data Collecting Technique

The data was collected on the bases of formative evaluation by Tessmer [57]. This procedure was proceeded through the four staged steps below as described in Figure 1.

![Fig 1. Flows and design of formative research.](image)

2.3.1 Expert Review and One to One Judgement

The first prototype resulted from self-evaluation was submitted to an expert to get it reviewed. The process of expert review was represented by the expert in methodology Together with self-evaluation was a review sheet. The requested reviewer was told to judge accordingly qualitatively. The criteria were content, design, and technical quality. The expert was given to judge with certain scale from 0 to 100 scale. The result was called the first-prototype.

This first-prototype was then brought to two best students in essay writing to review the first-prototype. This was one-to-one review. The researcher asked them separately to judge the first-prototype. The measurement consisted of clarity, appeals and obvious errors. There three scales were judged with certain quality from 0 to 100 scale. The result of this was called the first-prototype.

The result of this review together with review from expert were combined. He revised it considering the suggestions and notes from both expert reviewer and one to one reviewers and testers. Thus, the result is called first revised-prototype one. It was then validated in the next step called small group.
2.3.2 Small Group

The first revised prototype-one was brought to small group. 26 students from were asked to review the first revised prototype-one. 26 students were requested to judge. They were equipped with certain instruments of questionnaires. The aspects included in the instruments were user acceptance, implementability, and organizational acceptance.

User acceptance consists of 10 questions with Likert scale model while the implementability comprised of 10 questions with Guttman model design, and the organizational acceptance covered 10 questions with Guttman model design. They judged the first revised prototype-one, Further, he fixed the revised prototype-one and improved accordingly. Finally, the product is called revised prototype-two. Hence, this later prototype was brought to the next step called field test.

2.3.3 Field Test

The field test was done as an experiment to validate the revised prototype-two. In this phase 27 students were assigned to read and review the revised prototype-two. They were enrolled at English Department. The aspects included in the instruments were user acceptance, implementability, and organizational acceptance.

User acceptance consists of 10 questions with Likert scale model while the implementability comprised 10 questions with Guttman model design, and the organization acceptance covered 10 questions with Guttman model design. Collecting all of their reviews he then revised and improved the revised prototype-two. This phase resulted a good result called prototype-three. The goals were to harvest practical, effective, and efficient product. The result of this revision was called “final prototype”.

2.4 Data Analysis Technique

The data analysis was carried through several steps. The process covered document analysis and document report. First, the researcher sorted the condition of the submitted answer sheets of questionnaire. He confined if all required fields were answered. Then, he began recapping and put the results on a specific table of recaps. In this stage, he plotted the quantitative recap and qualitative ones. Finally, he calculated to which category the data belong.

2.4.1 Document Analysis

The result of the Tessmer model was analyzed using criteria content analysis (CCA) under the model of expert [58]. This was applied to the result of experiment from the field. All were analyzed quantitatively and qualitatively categorized accordingly. All the results of this were used to the revise the revised prototype three and thus a final product was harvested. There was not any statistical calculation was created but descriptive statistics if needed. However, how the product is resulted is explained chronologically in the document report.

2.4.2 Document Report

This was a process when the researcher formulated all the gained data in the previous process in the form of report that was sent to, the ministry of Research and Technology and
Higher Education of Indonesia, and an article to be presented and published in an international Conference and International Journal as an output of this research.

3 Results and Discussion

Since this study is trying to answer three research questions. The results of this research are a product called Forward Back Forward Revising and Publishing Technique or abbreviated to FBFRP Technique, Procedures and Learning Principles, and Validation process.

3.1 What is the form of a technique that can help test takers or essay writers develop their ability to write an essay in short, limited time?

Table 1 shows Procedures and Underlying Principles of FBFRP Technique.

Table 1. Procedures and Underlying Principles of FBFRP Technique.

<table>
<thead>
<tr>
<th>Phases</th>
<th>Procedures</th>
<th>Underlying principles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forward</td>
<td>1. Write a thesis statement or overview (ThS) in an introductory paragraph (IP)</td>
<td>1. Thinking logically, <strong>effectively and step by step</strong> by composing ThS; a topic and a controlling idea (CI);</td>
</tr>
<tr>
<td></td>
<td>2. Write a topic sentence (TS)</td>
<td>2. Categorizing idea <strong>accurately</strong> based on the controlling idea (henceforth CI) in ThS by composing TS and CS.</td>
</tr>
<tr>
<td></td>
<td>3. Write a concluding sentence (CS) in a body.</td>
<td>3. Thinking comprehensively the sub-category based on the ThS and CI, so that there will be more than one paragraph:</td>
</tr>
<tr>
<td></td>
<td>4. Write topic sentence (TS)</td>
<td>4. Think systematically, by restating the final conclusion of the ThS to end the essay;</td>
</tr>
<tr>
<td></td>
<td>5. Write concluding sentence (CS) in a body paragraph (BP)</td>
<td>5. Think logically, chronologically, critically, and <strong>comprehensively.</strong></td>
</tr>
<tr>
<td></td>
<td>6. Write a conclusion in last paragraph (CP)</td>
<td>6. Narrow the main category into several main points for each but not details yet.</td>
</tr>
<tr>
<td>Back</td>
<td>7. Write a hook in the IP.</td>
<td>7. Repeatedly thought in the same category if more than paragraph;</td>
</tr>
<tr>
<td></td>
<td>8. Write General Statement (GS) in the IP.</td>
<td>8. Comprehensive thought by furnishing and adding critical points upon the sentences in the CP so that the cores are included;</td>
</tr>
<tr>
<td></td>
<td>9. Connect GS with the ThS using correct; transition;</td>
<td>9. Interconnected thoughts and details and contextualize with situation;</td>
</tr>
<tr>
<td></td>
<td>10. Compose supporting sentences (SS) after each TS at least 2 to 3 complete sentences;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11. Add a summary based on the conclusion in the CP;</td>
<td></td>
</tr>
<tr>
<td>Forward</td>
<td>12. Synergize IP consisting of a Hook, GS, and ThS so that all are</td>
<td></td>
</tr>
</tbody>
</table>
3.2 How does the procedure of FBFRP technique work in boosting the test takers of computerized English essay?

The procedures and underlying principles of FBFRP technique work in boosting the test takers of computerized English essay based on CTL applied in the iBT TOEFL essay test.

Reviewing the CTL method [59], this FBFRP Technique is on the premise of constructivism in language pedagogy and language learning [60], and second language learning [61], and foreign language teaching [62]. For that reason, the researcher summarized the important points as the underlying principles for the FBFRP Technique?

This technique employs meaningful connection, self-regulated learning, collaborating, critical and creative thinking, reaching high standards of learning process, and accurate, effective, and comprehensive (AEC). Each of them has its own premise and scaffolds the process.

Meaningful connections are used in the stage of “forward” in which all composed sentences had to be meaningful and inter-connected. It is so because every single sentence will be a reference for the entire supporting sentences and details. Self-regulated learning is applied in
the graded steps in writing essay as a whole organized in FBFRP technique. In this stage a test taker has to harvest the related supports and details for the existing sentences. Collaborating is used in the stage of “revising.” The learners can do what is so called “peer revision,” and “teacher revision” after doing a self-revision process.” However, this is only applicable in learning essay not in real test of iBT TOEFL. Critical and creative thinking are used in the whole process of composing the designated topic. When all principles are embedded, the result must be accurate, effective, and comprehensive (AEC). Test-takers are to have such kind of affection such as expansive, innovative, inventive, unconstrained thinking while creative thinker means to have such kind of mental mode such as focused, disciplined, logical, constrained thinking. The underlying and description are summarized in Table 2.

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Underlying principles</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The test-takers reveal expressive and integrative arguments either in support or against, e.g. topic sentence (henceforth TS) and Supporting Sentences (henceforth SS) are well connected and are bounded with concluding sentences (CS).</td>
<td>meaningful connection,</td>
</tr>
<tr>
<td>2. The test-takers is directed by the logic where the flows of proposition go with the aid of the step-by-step phases. E.g. what to write is what the step directs.</td>
<td>self-regulated learning,</td>
</tr>
<tr>
<td>3. The test-takers recall a chance to find feedbacks in non-test taking only. It is not applicable in the real test. E.g. peer feedback and teacher feedback.</td>
<td>collaborating,</td>
</tr>
<tr>
<td>4. The test-takers think judgmentally and resourcefully while composing each stage of the technique, e.g. the contents is fundamental and inventive not repetitive, e.g. when writing supporting details (henceforth SD)</td>
<td>critical and creative thinking,</td>
</tr>
<tr>
<td>5. The test-takers obtain the maximum standard which is proven by the good result of the designated criteria, e.g. The score is upper then 23 to 30 of iBT or upper than 80 to 100 in classroom context.</td>
<td>reaching high standards of learning process.</td>
</tr>
<tr>
<td>6. Test-takers spend the given time with full production for both integrated and independent tasks, e.g. 25 minutes for integrated task, and 30 minutes for independent task.</td>
<td>effective</td>
</tr>
<tr>
<td>7. Test-takers produce truthful composition for both integrated and independent tasks. E.g. what is written is true based on the thesis statement (henceforth ThS), and supporting details or example (henceforth SD)</td>
<td>accurate</td>
</tr>
<tr>
<td>8. Test-takers produce the whole aspect as implied by the given topic in good unity and coherence, e.g. a thesis statement (ThS) and concluding sentence (henceforth CS)</td>
<td>comprehensive</td>
</tr>
</tbody>
</table>

3.3 How the FBFRP technique is validated by the Tesmer (2013) Formative Evaluation?

3.3.1 Pre-Stage: Self Evaluation
The researcher reflected and analyzed the vivid result of essay writing papers submitted by the students who took essay class from the past five years. The number of papers; however, was taken purposively and with snow bowling approach of non-probability sampling. The result was taken into consideration as the basis foundation of me to compose a basic draft or so-called initial prototype one. He revisited this work and reviewed it critically. It was called checking obvious errors. He found some mistyped on the text. Accordingly, he revised it and made as a prototype one.

3.3.2 First Stage: Expert Review and One to One

The review by the expert indicated that the designed prototype has minor issues to revise. First, it was suggested to use “concluding sentence” instead of a “topic sentence” in the body of paragraphs. Further, it was suggested to add point by point sentences and a clear conclusion. Finally, it was about coherence, and feedback. All of these suggestions are considered to revise the prototype. The full table of suggestion is attached in the appendix 1.

Following the expert judgement was feedback from one-to-one of both male and female students. Both of them rated 96 % and 93% of clarity, appeal, and obvious errors. However, none of them suggested any issues to revise since the reviewed prototype was a revised version from the expert judgment. The full review in the stage one-to-one is attached in the appendix-2 and 3.

3.3.3 Second Stage: Small Group Stage

The small stage utilized mixed 26 students in the stage “user acceptance.” All were requested to rate with scales; interesting, interesting enough and not interesting. This resulted that prototypes was both interesting enough and interesting. The ten questions were rated interesting with 105 (39.92%) points and interesting enough with 136 (51.71%) points, and not interesting with 22 (8.36%) points. Both ratings are positive. The full rating table is attached in appendix-4.

Then they rated “implementability” in two categories: “Yes or No.” This resulted that prototypes was ‘Yes with 264 (82.24%) points and no with 57 (17.75%) points. The statement “yes” indicated strong agreement on implementability. The full rating table is attached in appendix-5A.

In addition to the scale “Yes or No”, they also rated qualitatively with small notes. The results showed that all notes tent to be positive with minor drawbacks to consider. Both quantitative and qualitative rating makes the review clearer and thus acceptable. The full review is attached in appendix-5B.

Furnishing the user acceptance and implementability are organizational acceptance. This stage utilized 26 mixed students to rate the prototype. They were requested to use “Yes or No” statements. The result showed that they rated 217 (83.14%) yes and 44 (16.47%) no. This indicated that the level of organizational acceptance is strong by the raters. The full rating is attached in the appendix-6A.

Along with organizational acceptance with Yes or No is qualitative notes. They generally noted their concern based on their view as raters. They expressed many various concern in different level. However, the notes were constructive. The recap of notes is attached in the appendix-6B.

3.3.4 Third Stage: Field Test
The third stage of validation was field test. This stage was done in three targets: user acceptance, implementability and organization acceptance. All utilized 27 mixed students.

In the user acceptance, they rated 100 (40.32%) points with interesting and 137 (55.24%) with interesting enough and 11 (4.43%) not interesting. Both made the strongly positive rating 95.24% against poor disagreement of 4.43%.

Then they rated “implementability” in two categories: “Yes or No.” This resulted that prototypes was ‘Yes with 250 (94.69%) points and no with 14 (5.30%) points. The statement “yes” indicated strong agreement on implementability. The full rating table is attached in appendix-8A.

In addition to the scale “Yes or No”, they also regarded qualitatively with small notes. The results showed that all notes tent to be positive with minor drawbacks to consider. Both quantitative and qualitative rating made the review clearer and thus acceptable. The full review is attached in appendix-8B.

Furnishing the user acceptance and implementability are organization acceptance. This stage utilized 27 mixed students to rate the prototype. They were requested to use “Yes or No” statements. The result showed that they rated 220 (81.4%) Yes and 50 (18.51%) no. This indicated that the level of organizational acceptance is 81.4% of the raters. The full rating is attached in the appendix-9A.

3.4 Discussion

The current study has resulted a new product called “FBFRP Technique.” It has been created under many consideration theoretical gaps [59]-[62] and practical gaps. The product is to solve many problems in computerized essay [3], [7] and amend the theories in writing essay [19], [44], [50]. This finding has contributed to the recent studies in the similar topic of essay [2], [46]-[49].

It is concluded that the product is designed as a technique [21], [23], [63]. With this technique a test taker may solve the discrepancy in the prior studies [5], [6], and harvest better outputs of iBT TOEFL Essay [1]. Briefly, the researcher has tried too many factorial gaps in the prior studies such as problems, theoretical gaps, and empirical gaps. It is also an answer to the need in digital age and the impact on learning [64].

The study also answers the second research questions and the results are learning principles and the process of validation. The product of the R and D is designed to easy the user when writing iBT TOEFL essays as a solution of the previous studies [12], [13], [65]. This study was also the perpetuation of the recent studies by the researcher [16], [66]. The study involves phases to follow and learning principles as the soul of the process.

In the stage of forward, a test taker may write a thesis statement, first topic sentence and a concluding sentence [19][50], second topic sentence and a concluding sentence and a conclusion in the last paragraph. All of these are under the learning principles “meaningful connection” [32][59]. These are skeleton of a full essay.

In the stage of back, a test taker is urged to revise the existing draft by writing a hook and general statement in the introductory paragraph [19]. This is followed by making some supporting sentences for each paragraph. The whole process is under the principle of self-regulated learning [33][34], logical, chronological [40] and critical [42][59]. These are the semi-skin layers of an essay.

In the stage of forward, a test taker is directed to consolidate the introductory paragraph [19]. It is also to write more detail sentences under the supporting sentences with supporting
details or examples. It is furnishing the conclusion by adding some details sentences [50]. The principles involve interconnected and comprehensive thoughts, and effective sentences [59]. These are skin layers of an essay.

In the stage of revising, a test taker is pushed to think of unity and coherence [19], [50]. The test taker revisits and edits the existing draft with correct punctuation. The goal is to make sentences be connected [23]. It is also to make sentences are united and have certain meaningful sense despite diverse in sentences. This process applies for the self-regulated learning because it was proven to be positive [35]-[37]. It is then followed by employing the principle of collaborating or cooperative [38] and open-minded [59]. These are the ideal essay product.

Finally, it is publishing stage where a test taker is pushed to make sure if the essay is fine to publish. The process involves minor revising [23], reading, editing [45], and proofing the essay until it looks fine to submit. The test taker thinks comprehensively and mastery learning leading to a portfolio [59]. These are the fixation of writing an essay to gain successful writing essay proficiency [43].

Completing the principles, a test taker is directed to furnish the iBT TOEFL essay by judging the computerized essay with three closing steps: effective, accurate and comprehensive to meet the accuracy [52] [53].

It is concluded that each step has an underlying principle that must be done chronologically. The process ranges from general comprehensive to specific and detail composition or from stamen, argument, and examples.

Finally, the study answers the last research question. The whole process took the model of Tessmer [57]. The process involved various ability and across genders of 20 male and 50 female students in addition to a professor and two male and female students. They were involved in the whole stages [67]

3.4.1 Pre-Stage: Self Evaluation

This stage was a basis foundation for the initial prototype. In this stage, the researcher himself who designed and revisited the result to find the errors. It was called checking obvious errors. Accordingly, he revised the errors and made the revised one as a prototype-one. The degree of acceptance was good which was highly acceptable [66].

3.4.2 First Stage: Expert Review and One to One

The next stage was review from an expert professor. It was found some errors to revise. However, the flaws were minor so that they did not change the prior model. Following this process was one-to-one of both male and female students. They rated 96 % and 93% of clarity, appeal, and obvious errors. The prototype-one was then revised. The degree of acceptance was excellent which was absolutely acceptable [14].

3.4.3 Second Stage: Small Group Stage

The small group rated the revised prototype form expert review and one-to-one. They rated “user acceptance” with 39.92% interesting and 51.71% interesting enough, and 8.36 % not interesting. The degree of acceptance was excellent which meant absolutely acceptable. They rated “implementability” with 82. 24% yes and 17.75% no. The degree of acceptance was excellent which meant absolutely acceptable [14]. They also rated qualitatively with small notes. They showed positive tendency with minor drawbacks to consider. Lastly, they rated on
“organizational acceptance” with 83.14% yes and 16.47%) no. This indicates that the level of acceptance was excellent which meant absolutely acceptable [14]. In addition, they generally noted their concern based on their view as raters. They advocated many various concern in different level but the notes were constructive.

3.4.4 Third Stage: Field Test

The last stage was field test of “user acceptance.” In this stage they rated “user acceptance” with 40.32% interesting and 55.24% interesting enough and 4.43% not interesting. This indicated strongly positive rating with 95.24% against the poor disagreement of 4.43%. They rated “implementability” with 94.69% yes and 5.30% no. This indicated a strong agreement on implementability. They also regarded qualitatively with small notes but positive with minor drawbacks to consider. Lastly, the rated on “organizational acceptance with 81.4% yes and 18.51% no. This indicated a high level of organizational acceptance. The degree of user acceptance, implementability and organizational acceptance were excellent which meant absolutely acceptable [14].

The while validation process is excellent which means absolutely acceptable for the product to use in the actual test. However, a limited experimental study is needed [14]. This study has laid a novelty for any scholars and thus his contribution for the knowledge.

4 Conclusion

Referring to the research questions, and considering all aspects included and processes went through in this research, the researcher concludes that the Forward Back Forward Revising and Publishing (FBFRP) technique is believed to answer the test takers in that they can write the essay fast and accurate and thus harvesting good essay product.

The characteristics of CTL: meaningful connections, self-regulated learning, collaborating, critical and creative thinking, and high standards are inherent in this designed technique. In addition, effective, accurate and comprehensive are the fence. Thus, FBFRP Technique has answered at least the following characteristics: (1) meaningful connections are used in the stage of “forward”, (2) Self-regulated is used in the whole procedure of FBFRP, (3) Collaborating is used in the stage of revising, peer revision and teacher revision, (4) Critical and creative thinking are used in the stage of second “forward” during the composing of supporting sentences (SS) and supporting details (SD), (5) Increasing the high standards of computerized essay and successful writing proficiency, and ideal writing product, (6) Effective, accurate and comprehensive as normative product of the essays for both integrated task and independent essay writing.

The process of validation has met the standard in that all rated or reviewed exceed the level of acceptance with excellent or called absolutely acceptable. This mean that the process of validation did not have any flaws to revise. The whole stage has contributed to the better development process until the last process of limited field test.

To wrap the finding, the created technique of FBFRP Technique is a new technique to promote a computerized-based essay test and is applicable in the iBT TOEFL test, and teaching purpose at university level.
References


Impact of Regional Fiscal Capacity and Regional Economic Growth on Improving the Welfare of the Community in Regencies/Cities in Kalimantan

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Abstract. The Purpose in this research to understand what the impact of fiscal capacity and regional economic growth are on improving the welfare of the community in districts / cities in Kalimantan. The methods use in research are Klassen typology and Panel Data Regression using SPSS and Eviews software. The research describe Scatter Plot IKFD and Growth, There are only 6 Regencies/ Cities that are in quadrant 1, the rest are mostly in quadrant 3 and 4. Scatter Plot IKFD and IPM, There are only 11 Regencies/Cities that are in quadrant 1, the rest are mostly in quadrant 3 and 4. The best model adalah Fixed effect model with the Chow and Hausman test, the simultaneously all independent variables (IKFD and Growth) affect the dependent variable (IPM) and Partially it is known that only the IKFD variable has a significant effect on the level of welfare in the Regency / City with a negative relationship, The coefficient of determination (R2) is 88.83%, which means that the proportion of variance in the predictable welfare variable from the IKFD variable and growth is 88.83 percent, the rest is explained by other variables outside the model.

Keywords: IKFD, growth economic, social welfare

1 Introduction

The dependence of local governments on transfer funds is a common condition experienced by almost all city districts in Indonesia. This dependence has consequences for weak regional independence to carry out various activities and programs that must be carried out to develop the region. Through the Regional Fiscal Capacity Index (IKFD) we get an overview of the financial capacity of each region which is reflected in the general APBD revenue (excluding special allocation funds, emergency funds, old loan funds, and other revenues whose use is limited to finance certain expenses) to finance government duties after deducting personnel spending and linked to the number of poor people.

The role of government in the view of [1] that government spending is divided into 2 streams, namely as government expenditure (G) and also investment (I) government, Keynes divides aggregate demand into two types of expenditure, namely consumption expenditure by households and investment by entrepreneurs. In its development, aggregate expenditure can be divided into four components of household consumption, corporate investment, government spending, and exports. Government spending is an activity related to the function of the government to regulate economic activity but can also affect the level of aggregate spending in
the economy, due to market imperfections, keyness (Neo-classical) to New Keynes believes that government policy is still needed to stabilize the economy.

Market failure requires the government to intervene in regulating the economy so that people's welfare can be achieved optimally, as for the role of government in the economy according to [2] through 3 functions, namely allocation, distribution and stabilization.

In relation to the implementation of regional autonomy, the role of government in the economy in its implementation refers to 2 approaches according to [3], namely based on the views of Musgrave and Neo Classics, where according to Musgrave's view the existence of the public sector is to carry out the main functions of government which are determined by the existence of externalities and the level of preference it causes the implementation of main tasks that must be centralized such as the stability function, and those that must be decentralized such as the allocation and distribution function, according to the Neo Classical view with the political economy approach assuming that local people have relatively homogeneous preferences (like individuals), so that local government choices closer to or more in line with individual choices than choices made by the central government.

According to [4] there are three main missions for the implementation of regional autonomy and fiscal decentralization, in an effort to empower local governments, namely: (a) improve the quality and quantity of public services and community welfare, (b) creating efficiency and effectiveness of regional resource management, and (c) empowering the community to participate in development.

Based on the Fiscal Capacity index, regions are grouped into 4 (four) categories of Fiscal Capacity as follows: (a) regions whose Fiscal Capacity index is more than or equal to 2 (index \( \geq 2 \)) are regions that fall into the very high Fiscal Capacity category; (b) areas whose Fiscal Capacity index is between more than or equal to 1 to less than 2 (1 \( \leq \text{index} < 2 \)) are areas that fall into the high Fiscal Capacity category; (c) an area where Fiscal Capacity index is between more than 0.5 to less than 1 (0.5 \( < \text{index} < 1 \)) is an area that is included in the moderate Fiscal Capacity category; and (d) areas whose Fiscal Capacity index is between more than or equal to less than 0.5 (index \( < 0.5 \)) are regions that are included in the low Fiscal Capacity category.

The average condition of the district/city IKFD in Kalimantan is fluctuating and shows a downward trend, especially in North Kalimantan, where there is a very large decline, this means that there is a decrease in fiscal capacity in each district / city in each province in Kalimantan. The size of the IKFD in each province in Kalimantan also shows an uneven distribution, especially in years 1 to 5. When viewed based on the IKFD category from 56 Regencies/Cities in Kalimantan, it is known that the average IKFD figure is 30.35% in the very high and high categories, 15.26% in the medium category and 12.5% in the low category.

Social welfare in the view of welfare economic theory according to Pigou (1960) is a part of social welfare that can be linked directly or indirectly to the measurement of money. Meanwhile, the notion of social welfare according to Whithaker and Federico (1997) is a nation's system of benefits and services to help society to obtain social, economic, and educational and health needs which are important for the survival of the community. A person who has a lack of ability may have low welfare, a lack of ability, which means that he is less able to achieve certain functions so he is less prosperous [5].

The ideal condition regarding government intervention does not always cause government intervention in the economy to increase people's welfare, because the government can also fail because it does not carry out its functions efficiently, this inefficiency is caused by several things according to Hyman (1993) in [6], namely: Imperfect information; Limited oversight of private party reactions; Limited oversight of bureaucrat behavior; Barriers to the political process; There are large transaction costs.
The economic growth of districts / cities in Kalimantan is known that the average growth of districts / cities in Kalimantan in 2016 has decreased in North Kalimantan, East Kalimantan and Central Kalimantan, while the other 2 provinces in Kalimantan Island experienced a slight increase which occurred in South Kalimantan and West Kalimantan. From the beginning of observations from 2012 to 2019, the magnitude of the economic growth rate in Kalimantan fluctuates and after experiencing a significant contraction in most provinces, starting in 2017 it has shown recovery and in 2019 the economic conditions in all Provinces in Kalimantan are relatively good even though some have experienced a tendency decreased as in the provinces of South Kalimantan, Central Kalimantan and West Kalimantan.

The HDI condition in 5 Provinces on the island of Kalimantan shows the same trend, namely increasing, there is a fairly high disparity of HDI between provinces, East Kalimantan Province is in the top position and West Kalimantan is the lowest, while in the other three provinces the amount is relatively the same and is between the two. The dependence of regions on transfer funds that occurred in many regencies/cities in Indonesia also occurred in Kalimantan, independence in regional fiscal low capacity, weakened the region's ability amidst the global uncertainty, the decline in commodity prices on the global market and this pandemic reduced the regional economy on the island of Kalimantan, very interested to understand what are the impact of fiscal capacity and regional economic growth on improving the welfare of the community in Regencies/Cities in Kalimantan.

2 Method

This study is obtaining secondary data from BPS and Indonesia Database for Policy and Economic Research. The collected data are; Regional Fiscal Capacity Index, Growth GRDP, Human Development Index.

Data in research include 5 provinces with 56 Regencies/Cities in Kalimantan from 2012 to 2019 (7 years). The method to measure the impacts is panel data regression. Regional Fiscal Capacity Index (IKFD) as dependent variable, Growth GDRP (Economic Growth) as dependent variable, Human Development Index (IPM) as independent variable. The model options are Pooled Least Squares (PLS), Fixed Effect Model (FEM), and Random Effect Model (REM). Panel Data Analysis uses the Multiple Regression model, where the formulation is as follows:

$$IPM_{it} = \beta_0 + \beta_1IKFD_{it} + \beta_2Growth_{it} + \epsilon_{it}$$

Determination of the model chosen using the Chow and Hausman test. F test was performed to determine the effect of independent variables simultaneously on the dependent variable and t test to determine the effect of the variable partially.

3 Results and Discussion

3.1 Scatter Plot IKFD and Growth
There are only 6 Regencies/Cities that are in quadrant 1, the rest are mostly in quadrant 3 and 4. Malinau and Nunukan in Kalimantan Utara, Murung Raya, Lamandau and Sukamara in Kalimantan Tengah, Beru in Kalimantan Timur. Figure 1 shows the scatter plot IKFD and growth.

3.2 Scatter Plot IKFD and HDI

There are only 11 Regencies/Cities that are in quadrant 1, the rest are mostly in quadrant 3 and 4. 9 in Kalimantan Timur: Samarinda, Balikpapan, Kabupaten Paser, Penajam Paser Utara, Kutai Kertanegara, Kutai Barat, Kutai Timur, Berau, and Bontang. 2 in Kalimantan Utara: Malinau and Bulungan. Figure 2 shows scatter plot IKFD and HDI.
3.3 Scatter Plot Growth and HDI

There are only 11 regencies/cities that are in quadrant 1, the rest are spread out in quadrant 2, 3 and 4. 5 in Kalimantan Tengah; Palangka Raya, Barito Timur, Kotawaringin Timur, Kotawaringin Barat, dan Gunung Mas, 2 in Kalimantan Selatan; Banjarmasin dan Banjarbaru, 1 in Kalimantan Barat; Singkawang, 2 in Kalimantan Tengah Utara; Malinau dan Tarakan, 1 in Kalimantan Timur yaitu Berau.

The best model adalah Fixed effect model, the chow test is known that the F Cross-section with Prob 0.0000 rejects Ho, which means that the FEM model is better than PLS, Hausman test Cross-section random with Prob 0.0684 accept Ho, which means FEM is better than REM.

3.4 Impacts on Social Welfare

Goodness of fit test F test or regression coefficient test simultaneously shows that the statistical Prob F value is 0.0000, which means that simultaneously all independent variables (IKFD and Growth) affect the dependent variable (IPM). The coefficient of determination (R2) is 88.83%, which means that the proportion of variance in the predictable welfare variable from the IKFD variable and growth is 88.83 percent, the rest is explained by other variables outside the model. Partially it is known that only the IKFD variable has a significant effect on the level of welfare in the Regency/City with a negative relationship with a coefficient of -0.252. Table 1 shows the Result of Econometric Estimation Fixed Effect Model (FEM).

Table 1. The Result of Econometric Estimation Fixed Effect Model (FEM).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std Error</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>69.390</td>
<td>0.286</td>
<td>0.000</td>
</tr>
<tr>
<td>IKFD Lahar</td>
<td>-0.252</td>
<td>0.037</td>
<td>0.000*</td>
</tr>
<tr>
<td>Growth Lahar</td>
<td>-0.073</td>
<td>0.051</td>
<td>0.154*</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.8883</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prob.F-statistic</td>
<td>0.0000000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: * significant at alpha 1%

The findings in this study are in line with empirical study of [7]-[10] conclude that government spending does not have a significant effect and can even negatively affect the welfare of society.

3.5 Relationship between IKFD and Social Welfare

Out of 56 regencies / cities in Kalimantan, the average IKFD, 60.65 percent of regencies / cities are in the very high and high categories, only 26.78 percent in the medium category and 12.5 percent in the low category. The findings of this study support the theoretical study that high fiscal capacity will have an impact on increased welfare, this means that regencies/cities with high IKFD have an impact on high social welfare even though the confidence level is 88.83% and if there is something that is not in line, it means that it is influenced by variables outside the model.

According to [11] each city / district government faces various fundamental problems that demand financing. One of the problems that will give rise to the potential for a very large
increase in financing is the increase in program needs as a result of the rapidly increasing population. This condition will require local government funding for spending on pensions, social security, health and other facilities. In addition, in the next five years, local government needs for spending on school-age residents will still be quite large. Thus, the city / regency government is faced with the potential problem of increasing the need for financing amid conditions of large fiscal dependence. This certainly demands a fiscal transfer policy from the central government to the regions that is able to solve this problem.

The high gap of the IKFD in regions that generally have a wealth of natural resources compared to IKFD in areas that have no or only a few natural resources, so even though the percentage of the category is Very High, it is comparable to the Regency / City which is in the category. High, but in absolute terms the gap is quite large.

On the other hand, because most of the natural resources that are owned by many regencies / cities on the island of Kalimantan are in the form of coal commodity which is a mainstay export commodity which is very vulnerable to price fluctuations, so that the IKFD of districts / cities on the island of Kalimantan tends to fluctuate, because it is very dependent on global conditions. This also affects district / municipal budget allocations due to an element of uncertainty.

In line with the development needs issued by the regions, one of the important efforts made by the regions is understanding perceptions and increasing operational capacity. Therefore, every development sector requires funding to finance every detail of programs and activities that have been implemented or will be implemented so that national development plans and regional development plans can be in line and have the same common thread [12][13].

3.6 Partial Magnitude

The effect of the variable partially 45.45 percent of regencies/cities show a coefficient that has a positive impact, meaning that partially when the IKFD increases it will have an impact on increasing social welfare. 54.54 percent of regencies/cities show a coefficient that has a negative impact, meaning that partially when the IKFD increases it has an impact on reducing social welfare. Table 2 show the partial magnitude.

Tabel 2. Partial Magnitude
4 Conclusion

Regencies/cities with positive magnitude (having SDA or not) indicate that the Regional Government has succeeded in making budget allocations that are oriented towards social welfare and vice versa. Economic growth has no significant effect on social welfare and the magnitude is negative, this anomaly generally occurs in developing countries, where this economic growth is not equal distribution (gaps occur) so that it does not have a significant impact on social welfare.

References

The Influence of Environment Management Control System on Capital Structure Decisions and Their Implications on Company Performance

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Abstract. The study is aim to examine the effect of Environmental Management Control System (EMCS) to Capital Structure Decisions and Company Performance of coal mining industry in Indonesia. This study used quantitative research with sample size 35 company and PLS was used to measured hypothesis. Environmental Management Control Systems (EMCS) and Capital structure Decision have a direct and indirect influence on company performance. Performance improvement will be even better if the Environmental Management Control System (EMCS) is able to encourage sound capital structure decisions. This finding has implications for the management of the coal mining industry in Indonesia in order to improve company performance by encouraging Capital structure Decision through Environmental Management Control System (EMCS).

Keywords: Environmental management control system (EMCS), capital structure decision, coal mining

1 Introduction

Each company, in carrying out its activities requires a planning process to achieve the organization's goals. So good management control is required. The role of management control becomes very important for the company for all industries because of its functions which include coordination functions, Allocation of resources, motivation, and performance evaluation of the company's human, physical, and financial resources. If a company fails to exercise management control, it will result in huge financial losses, damage to the reputation of the company, and the end of it ending in the failure of the organization itself \cite{2}. Management control does not mean that all actions must comply with a previously determined strategy.

The reason for the use of management control system for a company is the first important management control system for the formulation and impeachment of strategies \cite{1}. In addition to the management control system, the company should also pay attention to the environmental management system which is the integrase of the organizational structure, authority and responsibility, mechanisms and procedures/processes, operational practices and resources for the implementation of environmental management \cite{4}.

The environmental management system includes five interconnected elements, namely environmental policy, planning, implementation and operation, inspection and correction measures as well as management assessment \cite{3}. Coal is widely used for power generation. This coal-fired power plant supplies 41% of the global electricity needs. In Indonesia, 48% of the lighting source comes from coal. In such circumstances facing the coal mining industry this
strategy will arise through the process of experimentation and processes arising outside the existing plan, which will be significantly affected by the company's management control system. The function that makes current control the basis for expanding a new strategy, is referred to as interactive development.

2 Method

This is a quantitative study in which the unit of analysis and observation is an explanatory survey. The analysis and observation unit is the management of Indonesia's coal mining industry. The observation is made across a cross section / one shoot time horizon, which means that the information or data is empirically collected at a single point in time (2020). The term "sample" refers to the subset of the population selected for study. The population of this study, in this interpretation, is the Indonesian coal mining industry.

The sample size is determined by analytical techniques used in the hypothesis test that is Partial Least Square (PLS). Chin states that the minimum sample size used by PLS-SEM is 30-100 sample size. In this case it can be said that the sample size is minimal used PLS-SEM smaller than SEM. The sample in this study was taken as many as 35 companies. The sampling technique used was simple random sampling using a list of registered population members as the sampling frame [5]. Hypothesis testing is carried out for direct and indirect effects (mediation test) with the sobel test.

3 Result and Discussion

3.1 Analysis of structural model (inner model)

Table 1 show the analysis of the inner model reveals the relationships between unobservable variables.

<table>
<thead>
<tr>
<th>Variable</th>
<th>R Square</th>
<th>Cronbachs Alpha</th>
<th>Composite Reliability</th>
<th>Q square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Management Control System (EMCS)</td>
<td>-</td>
<td>0.957</td>
<td>0.960</td>
<td>0.466</td>
</tr>
<tr>
<td>Capital Structure Decisions</td>
<td>0.359</td>
<td>0.961</td>
<td>0.965</td>
<td>0.611</td>
</tr>
<tr>
<td>Company Performance</td>
<td>0.627</td>
<td>0.883</td>
<td>0.919</td>
<td>0.716</td>
</tr>
</tbody>
</table>

Based Table 1 were quantified using the R square on endogenous constructs and the Q square (Stone-Geisser's) describe Q square values of 0.02 (minor), 0.15 (medium), and 0.35 (large) were obtained and were used exclusively for the endogenous construct with reflective indicator. According to Chin (1998), the R square was 0.67 (strong), 0.33 (moderate), and 0.19 (weak). The R square values for capital structure decisions and firm performance as endogenous variables meet the strong criteria (> 0.33 is considered moderate), and the Q square values meet the large criteria, implying that the research model is supported by empirical evidence (fit).
3.2. Analysis of measurement model (outer model)

The outer model analysis reveals the relationships between observable variables (indicators) and unobservable variables. Validity and reliability tests are used to determine the unobservable variables and indicators used to construct the dimension. Cronbach's Alpha is used to determine the dimension's reliability when measuring variables. Cronbach's Alpha greater than 0.70 indicates that the dimensions and indicators have a high degree of measurement reliability. Composite reliability and Cronbach's Alpha > 0.70 indicated that all unobservable variables in the estimated model satisfy the discriminant validity criteria. Cronbach's Alpha is greater than 0.7 and Composite Reliability is greater than 0.7, indicating that all variables have reliable dimensions and indicators.

Table 2 summarizes the outer model's output for each indicator dimension. To place a second order. This research model explains the relationship between variables-dimensions and dimensions-indicators through the use of the obtained loading factor.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Indicator-Dimension</th>
<th>Loading factor</th>
<th>SE</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Management Control System (EMCS)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMCS -&gt; Formal</td>
<td>0.803 0.024 33,629</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMCS1 -&gt; Formal</td>
<td>0.854 0.024 35,243</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMCS2 -&gt; Formal</td>
<td>0.797 0.042 19,101</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMCS3 -&gt; Formal</td>
<td>0.779 0.043 18,003</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMCS -&gt; Informal</td>
<td>0.900 0.017 52,448</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMCS4 -&gt; Informal</td>
<td>0.920 0.020 46,939</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMCS5 -&gt; Informal</td>
<td>0.560 0.063 8,871</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMCS6 -&gt; Informal</td>
<td>0.745 0.055 13,508</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMCS7 -&gt; Regulation</td>
<td>0.940 0.010 92,726</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMCS8 -&gt; Regulation</td>
<td>0.713 0.084 8,460</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMCS9 -&gt; Regulation</td>
<td>0.808 0.030 26,549</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMCS10 -&gt; Cost</td>
<td>0.889 0.022 40,400</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMCS11 -&gt; Cost</td>
<td>0.743 0.041 17,909</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMCS12 -&gt; Cost</td>
<td>0.873 0.024 36,197</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMCS -&gt; Stakeholder</td>
<td>0.911 0.018 52,046</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMCS13 -&gt; Stakeholder</td>
<td>0.929 0.011 87,982</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMCS14 -&gt; Stakeholder</td>
<td>0.834 0.030 28,130</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMCS15 -&gt; Stakeholder</td>
<td>0.775 0.042 18,615</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMCS16 -&gt; Stakeholder</td>
<td>0.857 0.030 28,123</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMCS -&gt; Environment</td>
<td>0.824 0.028 29,723</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMCS17 -&gt; Environment</td>
<td>0.861 0.031 27,675</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMCS18 -&gt; Environment</td>
<td>0.859 0.025 34,809</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMCS20 -&gt; Environment</td>
<td>0.926 0.014 68,169</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMCS21 -&gt; Ownership</td>
<td>0.910 0.013 72,576</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMCS22 -&gt; Ownership</td>
<td>0.910 0.009 101,081</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMCS23 -&gt; Ownership</td>
<td>0.734 0.076 9,700</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMCS -&gt; EMS</td>
<td>0.843 0.028 30,422</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMCS24 -&gt; EMS</td>
<td>0.723 0.055 13,115</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMCS25 -&gt; EMS</td>
<td>0.834 0.035 23,934</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMCS26 -&gt; EMS</td>
<td>0.843 0.028 29,789</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMCS27 -&gt; EMS</td>
<td>0.651 0.060 10,846</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The loading factor of the outer model of dimensions as determined by its indicators indicates that the indicators are valid for values greater than 0.5 and t values greater than 2.01 (t table at α = 0.05). The outcome of the measurement model for unobservable variables on their dimensions demonstrates the extent to which dimensions are valid when measuring variables. Figure 1 shows the Path Diagram of Research Model.

The obtained a structural model:

$$\text{CSD} = 0.599 \times \text{EMCS} + \zeta_1$$  \hspace{1cm} (1)

$$\text{CP} = 0.350 \times \text{EMCS} + 0.531 \times \text{CSD} + \zeta_2$$  \hspace{1cm} (2)

- EMCS = Environmental Management Control System
- CSD = Capital Structure Decisions
- CP = Company Performance
- \(\zeta_1\) = Residual
Table 3 is the result of hypothesis testing both simultaneous and partially.

**Table 3. Hypothesis Testing**

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Coeff. Estimated</th>
<th>SE</th>
<th>t-value</th>
<th>R²</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 EMCS -&gt; Capital Structure Decisions</td>
<td>0.599*</td>
<td>0.059</td>
<td>10.171</td>
<td>0.359</td>
<td>Hypothesis accepted</td>
</tr>
<tr>
<td>2 EMCS -&gt; Company Performance</td>
<td>0.350*</td>
<td>0.082</td>
<td>4.258</td>
<td>0.123</td>
<td>Hypothesis accepted</td>
</tr>
<tr>
<td>3 Capital Structure Decisions -&gt; Company Performance</td>
<td>0.531*</td>
<td>0.070</td>
<td>7.555</td>
<td>0.282</td>
<td>Hypothesis accepted</td>
</tr>
<tr>
<td>4 EMCS -&gt; Capital Structure Decisions -&gt; Company Performance</td>
<td>0.318**</td>
<td>0.052</td>
<td>Z =6.077</td>
<td>0.318</td>
<td>Hypothesis accepted</td>
</tr>
</tbody>
</table>

* significant at α=0.05  (t table =2.01)
** Significant at α = 0.05 (z table = 1.96) with Sobel test

Source: Data Processing with SMARTPLS (2020)

- Environmental Management Control System (EMCS) have significantly direct effect to Capital Structure Decisions (R² = 35.9 %)
- Environmental Management Control System (EMCS) have significantly direct effect to Company Performance (R²=12.3%).

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Fig. 1. Path Diagram of Research Model
- Capital Structure Decisions have significantly direct effect to Company Performance (R2=28.2%).
- Environmental Management Control System (EMCS) have significantly indirect effect to Company Performance through Capital Structure Decisions (R2=0.599*0.531 =0.318 =31.8%).

A research finding can be described as follows in Figure 2 based on the results of hypothesis testing:

![Fig. 2 Research Finding](image)

### 4 Conclusion

The results of simultaneous influence hypothesis testing show that Management Control System (MCS) and Environmental Management Control System (EMCS) against Capital Structure Decisions simultaneously amounted to 41.7%. Partial test results showed that each exogenous variable influenced the Capital Structure Decision in which the Environmental Management Control System (EMCS) had a dominant influence of R2=0.250. These results support the hypothesis that the interaction between MCS and EMCS affects capital structure decisions. The positive direction indicates that the improvement of the capital structure is shown from the good interaction between MCS and EMCS.

The results of the simultaneous influence hypothesis testing indicate that the Management Control System (MCS) and the Environmental Management Control System (EMCS) have a combined effect of 15.5 percent on the company's performance. Only the Environmental Management Control System (EMCS) had a significant effect on the company's performance, with an R2 value of 0.108. These findings corroborate the hypothesis that the Environmental Management Control System (EMCS) has an effect on the financial performance of the
business. The upward trend indicates that the Environmental Management Control System (EMCS) is improving, as evidenced by the company's strong financial performance.

Only capital structure decisions, with an R2 of 0.237, have a significant effect on the company's performance, according to partial test results. These findings bolster the hypothesis that capital structure decisions have a material impact on a firm's performance.

Simultaneous influence hypothesis testing indicates that the Management Control System (MCS) and Environmental Management Control System (EMCS) have a 35 percent effect on the company's performance via concurrent capital structure decisions. The results of partial tests indicated that both the Management Control System (MCS) and the Environmental Management Control System (EMCS) had a significant effect on the company's performance, with the Environmental Management Control System (EMCS) having a dominant effect of R2 = 0.203. These findings are consistent with the hypothesis that the Decision Management Control System (MCS) and Environmental Management Control System (EMCS) have an effect on the financial performance of the business. The positive direction indicates that the positive interaction between the management control system (MCS) and the environmental management control system (EMCS) demonstrates the improvement in the company's financial performance (EMCS).

References


Cash Waqf: An Innovation in Mobilizing the Potential of Waqf

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Abstract. This study aims to determine innovations in the digital mobilization of cash waqf potential. The method used in this research is descriptive qualitative. To mobilize waqf, the Indonesian Waqf Education Foundation (YEWI) pioneered the formation of the ambassador Waqf as an institution that organizes training & certification of waqf consultants. Waqf ambassadors are expected to be able to educate the public to do charity digitally. The position of the ambassador for waqf is between Nazhir and Wakif. In managing cash waqf, Nazhir must cooperate with the LKS-PWU (Sharia Financial Institution Cash Waqf Recipient). Cash waqf can be made with a relatively small amount of money and collected together to meet the requirements for issuing a certificate from the LKS PWU. The profit-sharing from the waqf investment is used to finance the activities programmed by Nazir. The results of cash waqf can be used to create jobs in order to reduce unemployment, help business capital for MSMEs in need, guidance, development of education and assistance with education costs, development of public infrastructure. Innovations in mobilizing the potential for waqf need to be socialized because it can be done digitally and anytime without regional boundaries.

Keywords: Cash waqf, Innovation, Waqf ambassador

1 Introduction

Islamic economics is a study of human behavior to fulfill their needs in order to maximize fallah, namely happiness in the world and the hereafter [11]. This science examines how to preserve entire economic resources or production factors to maintain their wealth and income distribution, not focusing on one particular group but throughout humanity therefore, there are no economic difficulties that hinder humans to worship Allah SWT. This needs to be underlined because the economy is basically only a tool for humans to carry out their main purpose in life.

There are two ways of transfer of economic resources to achieve prosperity: First, commercially, which occurs through economic activities. Second, it occurs socially in the form of assistance such as zakat, infaq, waqf, and shadaqah. The existence of these two transfers of economic resources is a potential for the ummah because not everyone is able to perform economic processes and activities. For those who are healthy, physically strong, and have the opportunity, they can acquire their source of life from economic activities. However, for others who cannot afford it, Islam protects it with social-economic security insurance in the form of zakat, donations, and shadaqah [14]. These forms of handover must be managed and utilized proportionally.
Zakat is mandatory whereas infaq, alm, and waqf are Sunnah. Waqf referring to authentic hadith can be categorized into infaq. In other words, the concept of infaq includes waqf. But the difference lies in the perpetuity of the benefits. In its history, waqf has played a pivotal role in supporting the establishment of Islamic social institutions [3].

The absorption of waqf potential in Indonesia is far from what was expected, coupled with its management which is still at a non-productive level. In 2016, 75% of waqf assets were still used for the construction of mosques, 14% for education, 5% for funerals and 6% for other uses. Furthermore, the potential for cash waqf in Indonesia reaches Rp. 180 trillion. Then from that amount of Rp. 180 trillion, as much as Rp. 400 billion has been realized. Meanwhile, in 2019, BWI targets the realization of cash waqf to attain IDR 800 billion [4].

Cash waqf is waqf made by a person, group, institution, or legal entity in the form of cash. The principle that must be adhered to is that the value of cash waqf must be guaranteed for its sustainability. Cash waqf must be invested in productive activities therefore, the return of the waqf value can be generated and utilized for the benefit of the recipient.

Currently, many Islamic philanthropic institutions are active in collecting cash waqf. To mobilize it, the Indonesian Waqf Education Foundation (YEWI) has a program to produce professional waqf consultants or Waqf Ambassadors who can assist people comprehend waqf and become a waqif simply and affordably. Waqf ambassadors are trained to use digital facilities with programs and socialization materials that are ready to be performed. The position of Waqf Ambassador is between Nazhir and Waqif. Nazir is the recipient of waqf property from waqif to be managed and developed according to its purpose whereas waqif is the party who conducts waqf. In managing cash waqf, Nazhir must cooperate with the LKS-PWU (Sharia Financial Institution-Cash Waqf Recipient). As of August 2020, in Indonesia, there are 22 LKS-PWU registered according to the Minister of Religion's decree. In addition to functioning as the Cash Waqf Pledge Deed Officer (PPAIW), LKS PWU is also the party in charge of providing instruments or products for nazir’s.

Cash waqf opens opportunities for people to do charity Jariyah. It can be made with a relatively small amount of money and collected together in order to meet the requirements for issuing a certificate from the LKS- PWU. The profit from this waqf investment is used to finance the activities programmed by Nazir. Nazir has a program of activities that have been determined and socialized to the community. In social media, there are currently many advertisements about appeals and suggestions for waqf such as waqf al Quran, waqf building mosques, waqf construction of Islamic boarding schools and others.

The Indonesian Waqf Education Foundation (YEWI) has collaborated with LKS PWU, namely Bank BTN Syariah in formulating the process of cash waqf management. Collaboration with the Directorate of Zakat & Waqf Empowerment at the Directorate General of Islamic Community Guidance of the Ministry of Religion of the Republic of Indonesia, the Indonesian Waqf Board (BWI), nazhir cash waqf namely DMI Yogyakarta Special Region, BMT Muda East Java, BMT GEMI, BMT Artha Amanah Sanden, BMT Dana Insani, BMT Bina Ihsanul Firi, Askar Kauny Foundation and the Non-Islamic Banking Financial Industry such as sharia life insurance. This paper will highlight YEWI's performance as a promotional agent and educate the public on the potential absorption of cash waqf in Indonesia.
2 Literature Review

Indonesia is the highest Muslim population in the world hence, it is natural that there are regulations related to the distribution of the Islamic economy including waqf. This is supported by a report published by the Charities Aid Foundation (CAF) where Indonesia was named the most generous country according to the 2018 world giving index. Islamic philanthropy institutions that rise in Indonesia include Dompet Dhuafa (DD), Rumah Zakat Indonesia (RZI), Dompet Peduli Umat-Daarut Tauhid (DPU-DT), LazisMu, Al-Azhar Care, Baitul Maal Hidayatullah (BMH), Global Waqf, Indonesian Mosque Council (DMI).

The practice of cash waqf in Indonesia is based on Government Regulation (PP) Number 42 of 2006 which was later amended in Government Regulation (PP) Number 25 of 2018 which contains matters concerning cash waqf, Nazhir, and Islamic financial institutions. The Ministry of Religion has established 22 Islamic financial institutions as LKS-PWU.

There are four pillars of waqf, namely: (1) people who conduct waqf, (2) objects that are donated, (3) people who receive waqf benefits, (4) pledge waqf[8] while in article 6 of the Waqf Law which is the legal basis for the implementation of waqf, in addition to the four pillars in implementing waqf there are two additional elements namely the allotment of waqf assets and a period.

More specifically, the Indonesian Ulama Council (MUI) issued a Fatwa on Cash Waqf on May 11, 2002, which stated that: (1) Cash Waqf (Waqf al-Nuqud) is waqf made by a person, group of people, institution or legal entities in cash; (2) included in the definition of money are securities; (3) cash waqf is jawaz (allowed); (4) cash waqf may only be distributed and used for things that are permitted in Islam; (5) The preservation of the principal value of Cash Waqf must be guaranteed, not to be sold, granted and/ or inherited. The rigidity of the rules regarding waqf is a derivative of the essence of Islamic economics which views property as a mandate that is used as a means of worship, not as a goal [5]. The process of cash waqf describe at Figure 1.

Fig. 1. Cash Waqf Process
Waqf has been known as an instrument of worship and is usually in the form of immovable objects (land) designated for education, places of worship and graves. Land prices are relatively expensive and limited, the rich can do it. Money is one of the movable objects and requires different management from immovable property. The process of implementing cash waqf is in accordance with the mechanism determined by the Indonesian Waqf Board (BWI). These mechanisms include: 1) prospective waqif can implement cash waqf by transferring money to the designated LKS- PWU; 2) prospective waqif can deposit cash waqf at any time; 3) prospective waqif candidate is given a guarantee that the funds that have been donated are guaranteed immortality.

3 Method

The method used in this research is a framework for writing the results of thought (research library). Descriptively explain and analyze the concept of cash waqf, the potential of cash waqf, and stipulate the strategy for developing cash waqf in Indonesia. In order to obtain facts and correct interpretations, the qualitative-descriptive approach is used which emphasizes the analysis more on the deductive and inductive inference processes and conducts analysis only up to the level of description.

4 Results and Discussion

In Indonesia, the potential for cash waqf is enormous. Every Muslim able to perform waqf with a relatively small amount of money. It becomes a great force in driving the economy. To mobilize the potential for waqf, it is necessary to have an active role from Nazhir and the Waqf Bureau, therefore, the enforcement of waqf funds and the number of waqif escalate.

However, in terms of awareness, public knowledge regarding the terminology of contemporary waqf such as cash waqf is limited. In terms of research, development and technology, waqf institutions are still in the stage of developing research and using technology for collection and management.

The 2020 Waqf Literacy Index report issued by the Indonesian Waqf Board can be an indicator for stakeholders in making decisions. Of the 32 provinces sampled, only four provinces showed an intermediate score, meaning that the majority of Muslims do not understand or even have heard of waqf at all. The index also revealed that the two main reasons respondents chose the Nadzir Institution were the aspects of accountability and transparency, as well as accessibility. 45% of respondents, chose to carry out their waqf to nazir institutions, while 29% of respondents implemented their waqf through direct submission to mauqaf alaih.

The opportunity for digitalization in the context of socializing the waqf program is wide open. Indonesian internet penetration in 2020 is climbing, where internet users now 175.4 million or around 64% of the total population. From the same report, there are 160 million social media users where the most visited social media is Youtube followed by Facebook then Instagram WhatsApp, and Twitter respectively. The majority of internet users in Indonesia use cellphones or gadgets, especially mobile internet therefore, it is possible to integrate online payment systems (e-payment) with the effective collection and management of waqf assets based on online payments (e-payment).
The digitization of waqf through the waqfraiser application will facilitate socialization and education to Muslims, including payment services and management of waqf funds. Information related to the program and distribution of waqf funds can also be done digitally via social media or the Nazir website. Hopefully, the accumulation of cash waqf and waqif trust increase, eventually the potential for cash waqf can be optimized.

Here we can visualize the central role that waqf institutions such as YEWI are trying to present. This institution has initiated the waqf ambassador program since 2014 and has produced human resources capable of marketing cash waqf programs to the public. This professional community regularly holds seminars on waqf which can be an alternative to an Islamic profession or business. The waqf ambassador network also helps promote the waqf program from Nazhir to the surrounding by conducting literacy studies with waqf stakeholders. Advocated by the quality of knowledge and credible insights, the waqf ambassadors have scattered throughout Indonesia.

Current waqf is not exclusive anymore, because it can be done by anyone at any time who intends to do it. Collective cash waqf can be made with a minimum of IDR.50,000 which can be transferred directly to Nazhir's account that has collaborated with YEWI, after reached IDR.1,000,000, which consists of cash waqf from several people, a Collective cash Waqf Certificate & Collective cash Waqf Pledge Deed will be issued by LKS PWU Officials which will then be sent a digital file to the waqif to be printed & stored as evidence of waqf. This whole process is inexpensive and convenient because waqif can use digital payments such as mBanking or iBanking. Moreover, cash waqf revenue can be used to create jobs that can reduce unemployment, business capital for MSMEs in need, education development, scholarship, public infrastructure development.

4 Conclusion

YEWI as an institution that produces waqf ambassadors is an accelerator in disseminating information and cash waqf education through digitization. The resources collected through cash waqf activities are relevant in overcoming the problem of poverty in Indonesia. The generosity that has become a tradition and continues to grow and develop from society need to mobilize and revitalize to gain wider benefits

References

[10] UU No.41 tahun 2004 Tentang Wakaf
[12] Peraturan Pemerintah (PP) Nomor 42 Tahun 2006 Tentang Pelaksanaan UU Nomor 41 Tahun 2004Tentang Wakaf
[15] https://yewi.or.id
Types of Speech Acts in the Short Film Nilep (2015)

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Abstract. This study aims to describe the types of speech acts found in the short film Nilep (2015). The method in this research was descriptive method. The data in this study were in the form of illocutionary speech acts of speech interactions in the short film Nilep (2015). The steps taken in obtaining the data were by watching the short film, transcribing the utterances that appeared and reducing all the utterances to the types of speech acts. The results of the study found 29 speech acts types of speech, then the utterances were filtered into 6 speech acts based on the indicators. Based on the conclusion of the meaning contained in speech acts in the short film Nilep (2015), namely representative speech acts with indicators of showing and approving, directive speech acts with indicators of suggesting and commanding, expressive speech acts with indicators of blaming, and speech acts of declarations with indicators of deciding.

Keywords: Speech acts, type of speech, short film

1 Introduction

Language is used by humans as a means of communication in the form of a sound symbol system that comes from human speech tools. As a means of communication, language is a collection of words that have meaning. Every particular word has an abstract meaning and relationship with a concept or object that it represents. With language, speakers can communicate in a variety of ways and purposes. However, sometimes the speaker does not use the form of speech according to what he means in his speech. For example, when a speaker does not use a command sentence in ordering his interlocutor to do something he wants. When the speaker says "This room is very hot", the speech does not function to inform the other person about the state of the room at that time. However, with a declarative sentence the speaker indirectly wants the opponent to do an action, for example turning on the air conditioner, blowing a fan or opening a window. Speech is a form of action in the context of a speech situation, so that its activities are called speech acts. Speech acts are pragmatic analysis, which is a branch of linguistics that examines language from its actual usage aspect [1].

Divides the types of speech acts into five categories, namely representative, directive, expressive, commissive, and declarative speech acts [2]. Representative act is a language act to state the truth or a form of speech that binds the speaker to the truth of the proposition expressed. The directive action is meant by the speaker so that the interlocutor takes action according to what is stated in the speech. Expressive acts are intended by the speaker so that the speech can be interpreted as an evaluation of what is mentioned in the speech. Declarative acts are speech acts intended by the speaker to create new things (status, circumstances, etc.).
This paper aims to describe the types of speech acts in the short film Nilep (2015). The theory used in classifying the types of speech acts in this study is the speech act theory discussed above.

2 Method

This research described the types of speech acts contained in the film Nilep (2015), therefore this type of research was a qualitative descriptive study. The research data source was the short film Nilep (2015). Nilep (2015) was a short film using the Javanese language. The data of this study were utterances containing the types of speech acts spoken by the players in the short film Nilep (2015). Furthermore, the data were obtained by making in-depth observations of the short film Nilep (2015). The steps were taken by watching the short film, transcribing the utterances that appear in the film, and reducing all the existing speeches into utterances that contain types of speech acts. The data that had been collected were then grouped and categorized based on the types of speech acts, then the speech data were analyzed and explained using meaningful sentences according to the existing speech act theory.

3 Results and Discussion

Just like the research that the researchers reviewed in this discussion, research similar to the author's research that discusses speech acts in short films had also been conducted by Septi Mariasari and Indriyati Hadiningrum, students of Jenderal Soedirman Purwokerto University, Central Java in 2019. The research discusses representative speech acts using Javanese in the communication media used in the short film. This study can be used as a reference in this study by discussing the types of speech acts in short films [3].

Previous research had also been conducted by Edo Frandika and Idawati, under the title Ilokosi's Speech Actions in the Short Film "Tilik (2018)". The research found that there were three forms of illocutionary speech acts and five types of illocutionary speech acts. The forms of illocutionary speech acts found were in the form of declarative, interrogative and imperative. There were five illocutionary speech acts, including assertive types, directive types, commissive types, declarative types, and expressive types [4].

Nilep (2015) is a short film that uses Javanese language which tells a group of children gathering at a security post. They argued about a child stealing a toy until they blame each other, until a friend insists on returning the stolen toy. Then a group of children accompanied one of the children who stole to return to the toy merchant's house. Arriving at the toy merchant's house, one of the children who stole did not dare to return it because in his mind the child had stolen, the toy dealer would beat him. Then they hurried back to go home. The toys that had been stolen were returned by sending packages to the toy dealer by writing a letter of apology for stealing their merchandise, namely the toy. In the short film Nilep (2015), types of speech acts appear in 9 utterances. The utterances were categorized into types of speech acts because they are representative, directive, expressive, and declarative speech. The speech was categorized into representative speech acts because the speech contains about agreeing and showing. Then it was categorized into directive speech because it contained suggestions or suggests, forces, orders, and orders. The type of speech act was expressive because it contained blaming speech, and the type of speech act was declared because the speech contained decisions or decisions.
In representative speech acts, the speaker stated what was believed to be a fact, an affirmation, a conclusion, and a description. The speech in the short film Nilep (2015), which was included in representative speech acts, is speech that shows and agrees.

3.1 Show

Speech act shows that it is a representative type of illocutionary speech act, the speech act shows what the speaker says shows what he believes to the other person through his speech. Examples of demonstrated speech acts are:

Erlan: “Ngerti Pak, iki ngko lurus. Ono pertelon kue nengen, umahe warnane ijo, ngarep umahe eneng wit peleme gedi.”

(You know, sir, this is straight. Later there will be a T-junction to the right, the house is green, in front of the house there is a large mango tree)

Bayu: “Ati-ati lho Pak, wonge galak. Wonge seneng mbrakoti.”

(incorrect sir, he is fierce. He likes to bite)

In the speech “Ngerti Pak, iki ngko lurus. Ono pertelon kue nengen, umahe warnane ijo, ngarep umahe eneng wit peleme gedi.” The speaker shows that the speech is evidence of a truth he believes by showing the address that someone is asking. Likewise with the following quote, which is a representative speech act by showing that the person he is looking for is a fierce person. “Ati-ati lho Pak, wonge galak.”

3.2 Approve

The speech act approves means that the speaker agrees or agrees with what is said by the other person or justifies, agrees, and accepts what is said.

Erlan: “Wegah! Pokok e yo wegah, wes to ayo bali wae! Bakule yo ra bakal ngerti kok nak sing nyolong dolanane aku.”

(I don't want to! I just don't want to, let's just go home! The seller won't know if I took the toy.)

Bayu: “Ho oh bener, ayo muleh wae yok!”

(He's right, let's just go home!)

In the above speech, which includes the speech act of approving is the speech “Ho oh bener, ayo muleh wae yok!” (He's right, let's just go home!) The speech is a statement agreeing that the interlocutor will agree with what is conveyed by the speaker, namely a request from the speaker so that the interlocutor follows what he is doing.

The directive speech act has the potential to present power. The illocutionary power of this speech act requires the interlocutor to do something with the intention of the speaker. In the short film Nilep (2015), which includes directive speech in the form of suggesting and ordering.

3.3 Advice

Suggested speech acts are speech acts that suggest the speaker to do something good according to the speaker for the interlocutor himself. As in the following speech;

Ridho: “Tetep wae iso ngajari cah cilik udud. Aku wedi bapakku loro mergo udud.”

(Still biased to teach young children to smoke. I'm afraid my father is sick because of smoking)

Afifah: “Mulakno sesok koe nak gede rasah udud, ben ra loro koyo bapakmu.”
(That's why you don't have to smoke when you grow up, so you don't get sick like your father.)

In the speech "Mulakno sesok koe nak gede rasah udud, ben ra loro koyo bapakmu." what Afifah said was a directive suggesting that the speech contained suggestions that the speaker gave to the other person so that when the opponent is older the interlocutor does not have to smoke so that it does not hurt like her parents.

### 3.4 Governing

The form of the command directive said that the command directive is a word that intends to order the interlocutor to do something [5]. In the type of command speech act there are functions of ordering, ordering, instructing, requiring, compelling, borrowing. The speech that shows the explanation above includes:

- **Afifah**: "Ayo melu aku nang umahe bakule!"
  (Come with me to the seller's house!)
- **Erlan**: "Gah! Kesel."
  (Don't want to! Tired.)
- **Afifah**: "Ayoo melu!"
  (Come on, come!)

This statement was conveyed when Erlan and Bayu stole the seller's toy, then Afifah ordered or forced to return it to the seller's house, but Erlan refused to return the toy.

Expressive speech acts are speech acts that are meant by the speaker so that the utterance is interpreted as an evaluation of what is mentioned in the speech [6]. In the short film Nilep (2015) there is a speech in the form of expressive speech acts, as follows:

### 3.5 Blame

Speech acts with a blaming indicator are indicated by the presence of speech from the speaker to the interlocutor who intends to blame the actions that have been done by the interlocutor or the party concerned with the speaker.

- **Afifah**: "Weh we ngawur e! Mesakke yo bakule."
  (Uh you carelessly! Poor father.)
- **Erlan**: "Bakule gaweane ngapusi og dimesakke."
  (The salesperson's job is just a lie, pity ...)

In the speech "Bakule gaweane ngapusi og dimesakke..." what Erlan said was a directive speech with a blaming indicator. The speech contained a blaming indicator because according to Erlan, the seller always lied to lottery buyers who always didn't get a prize. From there, Erlan assumed that the seller always lied and blamed him.

Declaration speech acts are a type of speech act that changes the world through speech [7]. That declaration speech acts are utterances carried out by speakers with the aim of creating something new. In the short film Nilep (2015) which is included in the reclassified speech act, it is as follows:

### 3.6 Decide

This deciding speech act is a speech act performed by the speaker to make a decision. The speech below is an example of applying the form of a decided speech act.
(I don't want to! I just don't want to, let's just go home! The seller won't know if I took the toy.)

Bayu: “Ho oh bener, ayo muleh wae yok!”
(He's right, let's just go home!)

This story was shared by Erlan and Bayu with a group of other children when forced by one of their friends to return the stolen toy. When they wanted to return but Erlan and Bayu were afraid to return the toys, they decided to just go home.

4 Conclusion

The types of speech acts found in the short film Nilep (2015) were representative speech acts, directive speech acts, expressive speech acts, and declaration speech acts. In the short film Nilep (2015) these types of speech acts appear in 29 speeches. These utterances were categorized into types of speech acts because these utterances were indicators that correspond to the types of speech acts discussed in this paper. The twenty-nine utterances could then be categorized into 6 indicators of speech based on the types of speech acts, namely representative speech acts with indicators of showing and agreeing, directive speech acts with indicators of suggesting and commanding, expressive speech acts with indicators of blaming, and speech acts with declaration indicators decide.

References

Mobile Phone Use and Communication Model: A Study of Documented Migrant Workers

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Abstract. Indonesia is one of the biggest countries in sending migrant workers to many destination countries. According to the Malaysian Ministry of Home Affairs report, there were 728,870 or 39% of Indonesian workers in Malaysia for 2015. Being far away while working, they rely on their cell phones to keep them in touch with their families. Communication via mobile phones is crucial to the social and emotional support of their nuclear families. It is a qualitative study in which at least seventeen migrant workers were interviewed—informants made up of fourteen documented female workers and three documented male workers working in Penang, Malaysia. Snowball sampling technique was used for the selection of informants. All respondents confirmed that their communication to families via mobile phones discusses their day-to-day affairs, financial management, family needs and dreams. Family communication between migrant workers and families is an interactive model of communication. However, all of the informants stated that this communication model was quite expensive and reduced their income. They often bought a free conversation bonus package to solve the problem.

Keywords: Indonesian, migrant, workers, remittance, mobile phone

1 Introduction

Current era has witnessed a huge scale of international migration. According to the OECD, the total number of migrants exceeded 113 million people. Asian countries provide large numbers of migrants to more than 71 million [1]. More than 6.5 million migrants was from ASEAN countries in 2013. This represents almost 70% of the total ASEAN migration at the end of the review period [2].

The Indonesian administration ratified the International Convention on the Protection of the Rights of All in 1990. Since then, the country has been one of the largest countries to send migrant workers abroad. Hugo [3] found that Indonesia is a key labor surplus nation and at the end of 2006, an estimated 11 percent of Indonesian workers (11.6 million) were unemployed. This unemployment figure needs to be addressed. Apparently, the government sees that sending more migrant workers could be the solution.

In his study, Chan found that in 2013, Indonesia received USD 7.4 billion in remittances from about six million migrant workers abroad [4]. As a neighboring country, Malaysia is one of destination countries where many Indonesian workers are working to make a living. The National Agency for the Placement and Protection of Migrants (BNP2TKI) was set up on 8 September 2016, with the main task of managing these migration processes as a government representative.
1.1 Migrant Worker

The International Labor Organization (ILO) officially defines a migrant worker as a person who moves from one country to another with a view to being employed [5]. Chan sees that migration is defined in terms of a win-win situation in which migrants, countries of origin and destination, all benefit from cooperation to facilitate transnational temporary migration [4].

UN study in 2011 reported that the estimated number of international migrants increased to 214 million in 2010, with 60 per cent residing in more developed regions, making up 10.3 per cent of the host country population [6]. Meanwhile, the World Bank and the Global Commission on International Migration are optimistic that migrants serve as 'developing agents' and that labor migration is increasingly positive [7].

In the context of Indonesia, Chan's study revealed that the Indonesian administration is part of other neoliberalizing countries that are actively stimulating labor migration as a temporary solution to national unemployment and poverty. Moreover, a long time since the migration representations used by BNP2TKI as a path to sustainable development [4], the new order regime has been encouraging labor migration as a term of "development" since the mid-1980s. In order to facilitate these migration processes, Constable’s study indicated that government had issued a licensing regime in 2004. Regimes when not strictly enforced for recruitment agencies. It quickly stimulated the rate of transnational labor migration, especially female migration, which increased dramatically in the aftermath of the 1997 Asian financial crisis [8].

Although Malaysia is not yet a signatory to the International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families, it remains a popular destination for foreign labor. On the basis of the Malaysian Ministry of Home Affairs report in 2015, Indonesia is not only the sending country, but also the largest overall number of workers compared to other foreign jobs. There were 728,870 or 39% of Indonesian workers in Malaysia, followed by Nepal (24%), Bangladesh (13%) and Myanmar (7 percent) [5] [9].

Migrant workers in Malaysia are classified as legal (documented) and illegal (undocumented workers. Unfortunately, it is estimated that approximately 60 per cent of illegal migrants are flooding the domestic labor market in Malaysia [9]. Indonesia has to deal with many legal cases caused by a large number of illegal workers in the neighboring country.

As a sending country, Indonesian migrant workers are being dominated by female migrant workers. The number of figures is about 80% of total worker population. It means remaining number is man migrant workers. More than half of women workers are working in Malaysia and Saudi Arabia. The majority of them come from rural areas with uneducated backgrounds. The situation makes them work in informal sectors, such as domestic workers. Depicting the women workers contribution, people grant them Indonesian as national “heroes”. In the meantime, Hamid also found that other migrant workers (including man workers) can be found in a number of sectors such as construction, agriculture, manufacturing, food, electronic, textile, domestic, and entertainment [9].

1.2 Communication Model

Wilbur Schramm says communication usually requires about three elements—the resource, this communication plus the desired destination. Ultimately, the original source encodes a communication in addition to direct that to its desired destination via some programmers, in which the message is usually obtained in addition to decoded. Figure 1 shows Shramm's communication model, which is often used as a reference for many communication researchers around the world.
Migrant workers often must deal with human rights cases since the very beginning of their departure in the host country to the destination country. A number of cases showed that the labor's rights prone to be violated by many parties irresponsibly. Therefore, migrant workers must be educated with human rights knowledge. Human rights comprise basic rights belong to all human beings in the world from their birth to death. Besides materialistic rights as compensation for their works, one of basic rights for migrant workers is to keep communicating with their families and peers. Communication is very important to gain social and emotional support from being apart from their beloved ones.

Migrants thank the advancement of communication networks through information and communication technologies (ICTs) which enables them to stay in touch with families in their homeland. The current tool of borderless communication technology attached to migrants' life is mobile phones. There are immense previous studies discuss the use of mobile phones by migrants from different points of view. Most of studies predominantly focus on how mobile phones enable migrants to maintain social support, a sense of closeness and communicate with their distant family members in the host country. Whereas there are many messages discussed during the communication process occurs. One of the possible issues discussed is the use of remittance for any purpose. Unfortunately, there is still a lack of study in analyzing the use of mobile phones of migrant workers in managing remittance with their relatives in the village. This study investigates the difference between man and woman migrant workers' use of mobile phones in managing remittance with their families.

2 Method

We investigate gender differences related to the difference between man migrant workers and women migrant workers’ use of mobile phones in managing remittance with their families. The study was conducted among Indonesia men and women workers who work in Penang, Malaysia. The total number of informants was 7 workers, consist of 3 men workers and 4 women workers. Woman respondents more than men because the number of woman workers are more than man workers.
Men respondents are all documented blue-collar workers. Meanwhile, women workers consist of 4 documented blue-collar workers. The informant selection uses snowball sampling contacted for the first stage via Indonesia General Consulate office in Penang, Malaysia. Semi-structured interview guides were conveyed to search for informants’ perspective on how they use mobile phone in managing the remittance with their families. Throughout the study, ethical procedures were carried out, such as informing respondents that participation was voluntary and they could withdraw from the study at any time. The maps the usage of mobile phones by respondents currently working in Malaysia is presented in Table 1.

### Table 1. Mapping of Mobile Phone Use

<table>
<thead>
<tr>
<th>Info</th>
<th>Man Migrant Workers</th>
<th>Woman Migrant Workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>How many mobile phone</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Provider</td>
<td>Malaysia’s provider</td>
<td>Malaysia’s provider</td>
</tr>
<tr>
<td>Family’s provider</td>
<td>Indonesia’s provider</td>
<td>Indonesia’s provider</td>
</tr>
<tr>
<td>How often communicate with family</td>
<td>Weekly</td>
<td>Weekly-Biweekly</td>
</tr>
<tr>
<td>Call or to be called</td>
<td>Call</td>
<td>Call</td>
</tr>
<tr>
<td>Who do you call</td>
<td>Child</td>
<td>Wife</td>
</tr>
<tr>
<td>Phone call/ WA video call/ Text</td>
<td>Phone call</td>
<td>Phone call</td>
</tr>
<tr>
<td>Social media use</td>
<td>Messeger</td>
<td>FB</td>
</tr>
<tr>
<td>Active social user?</td>
<td>Weekly update</td>
<td>Monthly update</td>
</tr>
<tr>
<td>Reason to call</td>
<td>Caring</td>
<td>Caring</td>
</tr>
<tr>
<td>Obstacle of communication</td>
<td>Network</td>
<td>Costly</td>
</tr>
</tbody>
</table>

### 3 Results and Discussion

In this category, the researcher wants to find out information related to mobile phone use. These questions aim to answer the second research objective, namely the style of mobile phone use. So that all informants reveal the habits in using the mobile phone as a means of family communication and personal socialization purpose.

The use of mobile phones for migrant workers varies by country and company. Based on previous research in Hong Kong, the use of mobile phones while working is not too strict. In addition to regulations, employers also cannot forbid for fear of being suspected of committing
human rights violations. Rules in Hong Kong allow migrant workers to sue employers if they are suspectly committing and restricting the rights of migrant workers. The fulfillment of the right to communicate is also considered part of workers' rights.

While in Malaysia, Indonesian migrant workers cannot be as free as in Hong Kong. The weakness of the Indonesian Government's diplomacy, such as in regulating policies regarding migrant workers with the Malaysian Government, makes migrant workers often face various problems. This situation causes companies and employers who employ migrant workers to be more dominant in determining applicable regulations, including the use of mobile phones. All informants shared that they kept their cellphones in the locker while working.

The researcher's initial question to the informant concerns information about the ownership of the cellphone and the choice of provider of the device. This information is essential in order to be able to distinguish how the ownership of Indonesian mobile migrant workers in Penang, Malaysia, who are working under the policies of the government and Malaysian companies. Besides, information about the ownership of telecommunications equipment can also be a marker of the lifestyle of migrant workers in utilizing this rapidly developing information technology.

The second question relates to the communication patterns of each migrant worker and family using a cellphone. The information is intended to describe the depth of long-distance interactions managed by each party. In addition to the intensity, each respondent's answer proves what kind of family communication patterns are established by migrant workers with family members who live far away in their hometown.

The last category of questions is about the use of social media via mobile phones from migrant workers. Like the influence of social media in other community groups, this study wants to explore the extent of the habits of Indonesian migrant workers using social media. Activities using social media for most Indonesians and the world have become a lifestyle. For this reason, it is essential knowing whether this also applies to migrant workers in Penang, Malaysia.

All informants understood enough of the second question component from the researcher. They are enthusiastic about answering every question and answering it smoothly. Shortly, they understand the purpose of the questions from researchers. The absence of rejection from groups of male and female migrant workers makes the process of extracting this information go quite smoothly.

4 Conclusion

Based on the communication model from Schramm, family communication that occurs between migrant workers and families is an interactive communication model. First, source, this role can be done by PMI and family. However, in this situation, the initiative often comes from the PMI. They first make the communication, while the family does only in certain urgent situations. Second, encoding, various messages sent are very diverse in the process of communication between PMI and the family. Third, signal, the process of conveying messages from PMI, is channeled through communication media in the form of mobile phones. This technology also bridges the encoding and decoding process in the form of language/text/images/video. Interference also occurs in this communication media during the communication process. Fourth, decoding; is a process of understanding the meaning of messages sent by PMI to the family. Fifth, destination; the family often does this role. Since only the PMI knows the right time to make long-distance communication, the family members
mostly act as a decoder. Sixth, feedback; despite conducting long-distance communication, but the feedback from the communication that occurs is direct. It is because mobile phone technology allows feedback to be instantaneous or real time, except when the noise occurs in the form of signal interference. Seventh, fields of experience or psychological effects also influence the communication process using this mobile phone. Situations, where PMI works away from family, encourage this moment of communication as a crucial moment. It also provides psychological effects for both parties.

Then, the mapping of mobile phone use concluded as follows. First, migrant workers in Penang who were informants of this study only use 1 mobile phone along with Malaysia’s telecommunications provider. Whereas they communicate with family members who use providers from Indonesia. Second, women migrant workers are likely getting more in touch with their families via mobile phones than men migrant workers. Women migrant workers communicate at least once a week, while men migrant workers only once a week or less. However, the initiative to communicate generally comes from migrant workers instead of families. Men migrant workers tend to prefer to communicate by direct phone calls, while women migrant workers are more varied, among others using video call facilities from WhatsApp platform. Third, regarding social media use on mobile phones, women migrant workers are more active than men workers. They use social media every day, while men migrants weekly or even monthly based. Fourth, all respondents stated that communicating with families using a mobile phone as a form of caring for the family. Talks are on daily life, financial management, family needs, and expectations. Nevertheless, each informant stated that such communication bond is a costly activity. To solve the problem, they buy a package top up with a free conversation for a certain time as a bonus. Fifth, male migrant workers communicate via mobile phones to families with a shorter duration of about 5-10 minutes. While female migrant workers tend to communicate more than 10 minutes.

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References

Natural Resources, Human Capital and Economic Growth: Evidence from Indonesia

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Abstract. Empirical evidence indicates that natural resource abundance contributes significantly to economic growth in natural resource-rich countries. Meanwhile, the literature on economic growth demonstrates that human capital is a significant factor in economic growth. This article examines the relationship between Indonesia's natural resource abundance, human capital, and economic growth. The article examined the impact of natural resource and human capital on economic growth in Indonesian provinces using panel data from 2015 to 2019. The findings indicate that natural resources have a detrimental effect on economic growth. This indicates that Indonesia's natural resource-rich provinces are also suffering from the natural resource curse. Several of natural resource-rich provinces have low human capital and high poverty rates. Local Governments must reduce dependence on natural resources and shift the economy to a more productive and sustainable sectors.

Keywords: Natural Resource, human capital, economic growth, natural resources curse hypothesis

1 Introduction

The growth patterns and levels of regional disparities in development that are found in several provinces in Indonesia are not merely due to differences in per capita GRDP developments between provinces, but are also related to many aspects, especially differences in resources and their demographic characteristics. According to [1], factors that cause disparities between regions in Indonesia include the concentration of regional economic activity, investment allocation, the level of mobility of production factors between regions, differences in natural resource ownership (SDA), differences in geographical conditions between regions, and lack of smooth trade between provinces due to inadequate infrastructure.

Natural resources, as demonstrated by experience in countries such as the United States and the United Kingdom, play a minor role in their development. On the other hand, another example from the Asian economic experience called the Asian Tiger which does not have the gift of natural resources, but is able to achieve high levels of economic growth. Just as South Korea, which was poor in natural resources and experienced a shortage at the start of its development, after the Korean War ended in 1953, it could quickly produce an impressive economic performance with a high average growth rate per year [1].

Natural resource wealth owned by a country is often considered a blessing that can help the country become economically rich. However, empirical economic research has discovered an ironic phenomenon known as the "natural resource curse," which states that countries with
abundant natural resources typically experience slower economic growth than countries with scarce natural resources.

This paradox was first put forward by [2] and corroborated by [3]. This can clearly be seen by comparing the GDP per capita of natural resource-rich countries in Asia Pacific such as Indonesia, the Philippines, Myanmar and Papua New Guinea which lag behind countries with very limited natural resources, such as Singapore, Japan and South Korea.

According to [4], the role of natural resources in regional development is a point of contention between the dependency and comparative advantage theories. Natural resources, according to dependency theory, impede development, whereas comparative advantage theory asserts that natural resources can accelerate development. Since the publication of [3], there has been debate over the so-called natural resource curse hypothesis, according to which countries endowed with natural resources perform worse economically than countries endowed with few natural resources.

The empirical evidence for the resource curse paradox is mixed. While some of them corroborate Sachs and Warner's findings (e.g. [5][6][7]), others cast doubt on the natural resource curse paradox's validity (e.g. [8][9][10]). According to [10], the model of the effect of natural resource abundance on economic growth has not been completely satisfactory, despite the possibility that natural resources may have a more positive effect on economic growth than is typically assumed. Additionally, [10] stated that the theoretical explanation should incorporate the institutional role in the growth process.

[11] conducted research on the impact of natural resources on economic growth in Indonesia at the district / city level, and [12] at the provincial level. These two studies indicate that natural resources contribute to regional economic growth. Meanwhile, research [13] conducted at the provincial level in Indonesia and [14] conducted at the district/city level in Kalimantan indicates that natural resources have a detrimental effect on economic growth.

Additionally, the empirical evidence on the impact of human capital on economic growth is mixed. Among them, the findings of [15], [16], and [17] demonstrated the beneficial effects of human capital on growth. Meanwhile, [18] and [19] discovered that human capital stock was insignificant, if not negative.

The difference in results regarding the role of human capital on economic growth is more due to measurements that cannot be carried out directly. Each researcher must use a proxy for measuring both natural resources and human capital. This is as stated by [20], empirical research has not produced convincing results to confirm its importance for economic growth. According to them, the main problem lies in how to build the human capital variable, which is not measured directly.

The preceding opinion is consistent with that expressed by [21], who asserts that quantifying human capital is more difficult to comprehend than defining it. Numerous authors have included stages of formal education, such as enrollment or educational attainment, while others have been forced to use indirect proxies such as literacy and mathematics to identify human capital.

Along with the different proxies used by researchers to measure human capital, the methods used to examine the effect of human capital on growth vary as well. According to empirical studies conducted by [22] and [17], using primary and secondary school enrollment rates, human capital has a positive and significant effect on growth. Likewise [23] empirical study of 100 countries for the period 1960 - 1995, which includes measures that differentiate human capital not only by level of education but also by sex. On the other hand, [18] and [19] found insignificant or even negative results for human capital stock, i.e. mean total years of schooling.
As a result of the preceding description, one can conclude that empirical research on the role of natural resources and human capital in economic growth continues to yield inconsistent findings. These seemingly contradictory findings may be explained by intangible variables associated with natural resources and human capital, as well as by the use of disparate methods for analyzing the relationship between human capital and growth. As a result, the role of natural resources and human capital in economic growth continues to be an enticing area of study. This study sought to quantify the economic impact of natural resources and human capital.

2 Method

This study makes use of secondary data from the Central Bureau of Statistics and the Ministry of Finance's Directorate General of Fiscal Balance. Economic Growth (EG), Gross Regional Domestic Product (GRDP), Gross Regional Domestic Product Per Capita (GRDPCap), Natural Resource Profit Sharing Funds (SNR), Mean Year School (MYS), Labor, Domestic Investment (DI), and Foreign Investment are all collected data (FI). All variables are converted in natural logarithm.

The method used to estimate the effect of natural resources and human capital is panel data, involving all provinces in Indonesia except Bali province in the period 2015–2019. Bali Province is not included as the area studied because it does not have a share of natural resources as a measure for natural resources in this study. The Equation Model as follow:

\[
\text{Growth}_{it} = \beta_0 + \beta_1 \text{GRDPCap}_{it-1} + \beta_2 \text{SNR}_{it} + \beta_3 \text{MYS}_{it} + \beta_4 \text{Labor}_{it} + \beta_5 \text{DI}_{it} + \beta_6 \text{FI}_{it}
\]

Following the Chow and Hausman tests, panel regression and FEM (Fixed Effect Model) were used to determine the best model among the Common Effect, Fixed Effect, and Random Effect models (REM).

3 Results and Discussions

3.1 Estimation results

After doing the Chow test, it showed that FEM was better than Common Effect and Hausman test indicating that FEM was better than REM. So that it can be further analyzed is the FEM model.

Table 1 shows that the previous year's GRDPCAP had a negative and significant effect, this shows that rich provinces experienced lower growth compared to other regions. Based on the theory of neo-classical economic growth, this is known as convergence.
Table 1. Estimation Result of Fixed Effect Model

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-23.39061</td>
</tr>
<tr>
<td>$GRDP_{it-1}$</td>
<td>-23.33631***</td>
</tr>
<tr>
<td>$SNR_{it}$</td>
<td>-0.280040</td>
</tr>
<tr>
<td>$MYS_{it}$</td>
<td>8.804187*</td>
</tr>
<tr>
<td>$Labor_{it}$</td>
<td>17.40377**</td>
</tr>
<tr>
<td>$DI_{it}$</td>
<td>0.113822</td>
</tr>
<tr>
<td>$FI_{it}$</td>
<td>0.527733</td>
</tr>
</tbody>
</table>

Obs: 165
F-Test : 2.8287 ***
R-Squared: 0.4604
Adj R-Squared: 0.2976

*** Statistically significant at alpha 1%, ** 5% and * 10%

SNR shows a negative but insignificant effect, while MYS shows a positive and significant effect, as well as Labor. This suggests that the resource curse is also experienced by some provinces in Indonesia.

3.2. Discussion

In Figure 1, we can see that in Indonesia, several provinces with abundant natural resources experience lower economic growth than other provinces. In 2015, East Kalimantan Province, which had the highest natural resources, experienced negative economic growth, namely -1.20 percent, as well as Riau Province which only experienced economic growth of 0.22 percent. Meanwhile, the rich natural resources province that still has high economic growth is Central Sulawesi, namely 15.5 percent in 2015.

**Fig. 1. Economic Growth and Share of Natural Resources, 2015**
In 2019, the economic growth of East Kalimantan Province improved with a growth rate of 4.77 percent. In fact, Papua Province has experienced a very sharp decline in economic growth, with an economic growth rate of -15.72 percent. There are show in Figure 2.

**Fig. 2. Economic Growth and Share of Natural Resources, 2019**

The socio-economic conditions in some natural resource-rich provinces are lower than in those without natural resources. High poverty rates in natural resource-rich provinces. Human Development Index (HDI) is still lower than the national level, except for East Kalimantan and Riau. Several natural resource-rich provinces experienced high unemployment rates, especially East Kalimantan, which showed the highest unemployment rate among natural resource-rich provinces. The Gini Ratio still shows a lower level than the national level except for Southeast Sulawesi and Papua, which are slightly higher than the national one, which means that the inequality between community income groups is relatively the same.

**Table 2. Socio-Economic Conditions in 10 Natural Resource-Rich Provinces in Indonesia**

<table>
<thead>
<tr>
<th>Province</th>
<th>Poverty (%)</th>
<th>Mean (2015 – 2019)</th>
<th>IPM</th>
<th>Unemployment (%)</th>
<th>Gini Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>East Kalimantan</td>
<td>6.00</td>
<td>75.26</td>
<td>7.20</td>
<td>0.33</td>
<td></td>
</tr>
<tr>
<td>Papua</td>
<td>27.60</td>
<td>59.06</td>
<td>3.60</td>
<td>0.40</td>
<td></td>
</tr>
<tr>
<td>Jambi</td>
<td>8.20</td>
<td>70.08</td>
<td>4.00</td>
<td>0.34</td>
<td></td>
</tr>
<tr>
<td>Riau</td>
<td>7.60</td>
<td>71.85</td>
<td>6.60</td>
<td>0.34</td>
<td></td>
</tr>
<tr>
<td>North Kalimantan</td>
<td>6.60</td>
<td>69.90</td>
<td>5.20</td>
<td>0.30</td>
<td></td>
</tr>
<tr>
<td>West Nusa Tenggara</td>
<td>15.40</td>
<td>66.60</td>
<td>4.00</td>
<td>0.37</td>
<td></td>
</tr>
<tr>
<td>South East Sulawesi</td>
<td>12.20</td>
<td>69.95</td>
<td>3.80</td>
<td>0.40</td>
<td></td>
</tr>
</tbody>
</table>
Central Sulawesi 13.80 68.14 3.40 0.35
West Sulawesi 11.20 64.34 3.00 0.36
South Kalimantan 4.80 69.59 4.80 0.34
Nasional 10.20 70.77 5.60 0.39

4 Conclusion

The previous year's GRDP per capita had a negative impact on economic growth, which means that the hypothesis regarding convergence occurs in the provinces of Indonesia. This shows that rich provinces experience lower growth than low-income per capita provinces. Several provinces with abundant natural resources experience lower economic growth than other provinces, especially East Kalimantan and Riau in 2015. In 2019, the economic growth of East Kalimantan Province improved with a growth rate of 4.77 percent. In fact, Papua Province has experienced a very sharp decline in economic growth, with an economic growth rate of -15.72 percent. Natural resources have a negative effect on economic growth, albeit a negligible one. Human capital has a significant positive effect. Local governments must diversify their economic base away from natural resources and toward more productive and sustainable sectors.

Acknowledgment

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References


The Effects of Oral Supplementation of Bitter Melon (Momordica charantia L.) Leaves Extract on the VEGF Serum Level in Diabetic Foot Ulcers: Randomized Controlled Trial

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Division of Endocrinology and Metabolism, Department of Internal Medicine, Faculty of Medicine, Diponegoro University, Semarang, Indonesia⁴

Abstract. The purpose of this study is to determine the effect of oral Bitter Melon (Momordica charantia L.) leaves extract on the serum VEGF level in diabetic foot ulcers. The trial was randomized, double-blinded, and placebo-controlled. Thirty diabetic foot ulcer (DFU) patients with a PEDIS score of 1-8 who met the criteria were divided into two groups: The treatment group received the bitter melon leaves extract orally at a dose of 6 g/day, while the control group received a placebo. The intervention lasted four weeks, and baseline and end-of-treatment VEGF serum levels were determined. The paired t-test and independent t-test were used to analyze the data. After four weeks of treatment, the baseline VEGF serum level in the treatment group decreases from 431.5248.5 to 236.9158 pg/ml (the decline begins at 194.5197.9 pg/ml). Meanwhile, in the control group, the concentration decreases from 382.4351,4 to 191.6121.9 pg/ml (the concentration decreases to 190.8324.9 pg/ml). The effect of oral supplementation with Bitter Melon leaves extract on VEGF serum levels was found to be insignificant (p=0.39). Oral bitter melon leaf extract supplementation was not shown to increase VEGF serum levels in DFU patients.

Keywords: Bitter melon, momordica charantia L., VEGF, diabetes mellitus, diabetic foot ulcer

1 Introduction

Increased prevalence of diabetes mellitus (DM) may result in an increase in the incidence of DFU [1]. Diabetes mellitus biochemically is able to cause complications in organ systems irreversibly in both the parenchyma structure and peripheral structure. In DM, DFU and amputation are the most common complications [2]. DFU refers to the main cause for non-traumatic foot amputations, thus, significantly causing disability, morbidity and mortality [3-4]. Additionally, it imposes significant physical, physiological, and financial burdens on patients and the general public. At the moment, it is estimated that DFU accounts for 24.4% of total health care expenditures in DM [5].

Diabetic foot ulcers increase the apoptosis of fibroblast cells, decreases fibroblast cell proliferation and prolong the inflammatory reactions, as seen from the presence of large
numbers of granulocytes neutrophils in the wound [6], the increase of local and systemic TNF-α in the type-2 DM patients [7]. At a normal level, fibroblast cells are unable to increase the VEGF production in responding to the hypoxic condition and this then makes the VEGF level low. This results in the accumulation of advanced glycosylation end products (AGEs) in cells exposed to chronic hyperglycemia and oxidative damage as a result of excessive mitochondrial oxidative stressor production. Both cause a permanent cell damage even though the environment has had normoglycemia [8]. VEGF is a growth factor that is involved in the neovascularization of wound healing [9].

Charantin contained in bitter melon is as a PR angiogenesis through the increase of Mitogen Activated Protein Kinase (MAPK) that will activate Extracellular Signal Regulated Kinases (ERK), later on causing the cell proliferation, migration and endhotel tube formation [10]. By increasing protease activity and endothelial cell migration, saponin bitter melon can stimulate angiogenesis [11]. The activation of these endothelial cells can increase VEGF secretion as an important mediator in blood vessel formation [12].

Infection control, inflammation repair, connective tissue matrix regeneration, angiogenesis/vasculogenesis, wound constriction, and re-epithelialization are all required for wound healing [13]. DFU management is costly, and even some of these medications have a variety of side effects. Additionally, DFU patients must first normalize their blood glucose levels, which will almost certainly prolong wound healing time. These facts then justify the use of bitter melon leaves as a supplement to enhance treatment effectiveness. Additionally, it can serve as a medium for promoting health and disease treatment. The purpose of this study is to determine the effect of oral bitter melon (Momordica charantia L.) extract supplementation on the serum VEGF level in DFU patients.

2 Method

2.1 Making the bitter melon leaves extract

Bitter melons (Momordica charantia L.) were collected in Boyolali, Central Java, Indonesia, on agricultural land. We chose only the best leaves (characterized by flat, fresh green leaves). Following that, they were washed and dried in a drying cupboard. The dried bitter melon leaves are ground into a coarse powder and macerated in 50 percent ethanol for 3-5 days until completely submerged. Following maceration, the results were filtered using a vacuum burgher and then evaporated using an evaporator until thick. The slightly thick extract was again evaporated on the water bath to thicken it until the water content was less than 20%. The thick extracts obtained were homogenized by adding amprotab/corn starch in a 1:2 ratio. Then, the extract mixture was dried in an oven at the temperature of 40°C and smoothed with a blender. The fine powder was placed into the capsules made at Clinical Pharmacy Laboratory of UMS.

2.2 Clinical trial

The Dr. Moewardi General Hospital in Surakarta, Indonesia, conducted this study using a randomized, double-blind, placebo-controlled design. The Health Research Ethics Committee of General Hospital Dr. Moewardi/School of Medicine, Universitas Sebelas Maret, Surakarta, Indonesia approved this research protocol.
2.3 Patients

Patients who met the criteria were those with a PEDIS score of 1-8, aged 30 - 65 years, with a hemoglobin level of >10g/dl, an IMT level of 18.5 - 22.9, an albumin level of > 3g/dl, and a Brachial Ankle Index (ABI) of > 0.6 - 1.3, with a duration of diabetes of 0-15 years, willing to participate in research and sign an informed consent form. Meanwhile, the excluded patients included those scheduled for minor amputations (Below or Above Knee), chronic hypoxia, sepsis, aged 30 years or older than 65 years, experiencing stress, obesity, consuming alcohol, smoking, as well as those with comorbidities (cardiovascular disease, lung disease, and immunology), receiving steroid therapy or chemotherapy, or who dropped out. The flow chart in Figure 1 illustrates the recruitment and follow-up of patients.

2.4 Study procedure

Additionally, eligible patients were randomly assigned to one of two groups: the treatment group or the control group. The treatment group received 3 x 2 grams of Bitter Melon leaves extract orally for 4 weeks, while the control group received a placebo. At the conclusion of this study, medication adherence was determined by counting the number of medications taken and interviewing patients in each control group.
2.5 Outcome measurement

The primary efficacy result is a change in VEGF serum levels measured using ELISA method. Serum VEGF levels were determined at baseline and at the end of week 4 in both groups.

2.6 Statistical analysis

The research findings are summarized as follows: the number of patients (n), the mean, and the standard deviation. SPSS was used to analyze the data; a value of $P < 0.05$ was considered statistically significant. If the variable under study was not normally distributed, the non-parametric statistic method was used. The mean difference analysis was used to compare the results of the VEGF level measurement to those of the paired t-test and independent t-test.

3 Results and discussions

3.1 Results

This study enrolled thirty patients with DFU. All DFU patients were randomly assigned to one of two groups: the treatment group (n = 15) received Bitter Melon leaves extract orally at a dose of 6 g/day, while the control group (n = 15) received a placebo. The baseline characteristics of the two groups revealed no differences show at Table 1.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Treatment Group</th>
<th>Control Group</th>
<th>$p$-value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (year)</td>
<td>55±7.3</td>
<td>53.1±8.6</td>
<td>0.30</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td>0.56</td>
</tr>
<tr>
<td>Male (%)</td>
<td>9 (60)</td>
<td>11 (73.3)</td>
<td></td>
</tr>
<tr>
<td>Female (%)</td>
<td>6 (40)</td>
<td>4 (26.7)</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td>0.54</td>
</tr>
<tr>
<td>Primary School (%)</td>
<td>1 (6.7)</td>
<td>1 (6.7)</td>
<td></td>
</tr>
<tr>
<td>Middle School (%)</td>
<td>8 (53.3)</td>
<td>10 (66.7)</td>
<td></td>
</tr>
<tr>
<td>High School (%)</td>
<td>4 (26.7)</td>
<td>2 (13.3)</td>
<td></td>
</tr>
<tr>
<td>Higher Education (%)</td>
<td>2 (13.3)</td>
<td>2 (13.3)</td>
<td></td>
</tr>
<tr>
<td>Occupation</td>
<td></td>
<td></td>
<td>0.31</td>
</tr>
<tr>
<td>Housewife (%)</td>
<td>6 (40)</td>
<td>9 (60)</td>
<td></td>
</tr>
<tr>
<td>Entrepreneur (%)</td>
<td>8 (53.3)</td>
<td>4 (26.6)</td>
<td></td>
</tr>
<tr>
<td>Civil Servant (%)</td>
<td>0</td>
<td>1 (6.7)</td>
<td></td>
</tr>
<tr>
<td>Retirement (%)</td>
<td>1 (6.7)</td>
<td>1 (6.7)</td>
<td></td>
</tr>
<tr>
<td>Body Weight (kg)</td>
<td>56.9±8.9</td>
<td>56±7.5</td>
<td>0.45</td>
</tr>
<tr>
<td>Body Mass Index (kg/m²)</td>
<td>21.6±1.3</td>
<td>21.7±1.3</td>
<td>0.64</td>
</tr>
<tr>
<td>Length in suffering from DM (in year)</td>
<td>8.5±5.9</td>
<td>8.47±6.6</td>
<td>0.38</td>
</tr>
<tr>
<td>Length in suffering from ulcer (in week)</td>
<td>23.1±34.8</td>
<td>24.40±33</td>
<td>0.69</td>
</tr>
<tr>
<td>PEDIS score</td>
<td>4.5±1.4</td>
<td>5.3±2.1</td>
<td>0.23</td>
</tr>
<tr>
<td>Antidiabetic Medicine (OAD)</td>
<td></td>
<td></td>
<td>1.00</td>
</tr>
<tr>
<td>Yes (%)</td>
<td>15 (100)</td>
<td>15 (100)</td>
<td></td>
</tr>
<tr>
<td>No (%)</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>
There was no difference in any of the baseline variables (age, gender, education level, occupation, body weight, body mass index (BMI), duration of diabetes mellitus (DM), duration of ulcer, PEDIS score, antidiabetic medication, and ankle brachial index (ABI)) between the treatment and control groups. After four weeks of treatment, VEGF serum levels decreased significantly from baseline (194.5±197.9 pg/ml, \( p=0.002 \) and 190.8±324.9 pg/ml, \( p=0.04 \)); however, there was no effect on VEGF serum levels (\( p=0.39 \)).

3.2 Discussion

VEGF is a mediator in angiogenesis [14-15]. The process of active angiogenesis occurs on the third day after the injury occurs [16]. As a result, the level of VEGF should have increased on that day. VEGF promotes blood vessel growth (sprouting) and a strong angiogenic response, as well as the expression of serine proteases urokinase- and tissue-type plasminogen activators (PA) and PA inhibitor 1 (PAI-1) in microvascular endothelial cells, which helps maintain the prototrophic process in balance. It increases the expression of metalloproteinase interstitial collagenase. The simultaneous influence on collagenase and plasminogen activator by VEGF will determine a productive environment for the migration and growth of endothelial cells. This environment is a critical component of the cellular process chain because it acts as a link between cellular invasion and tissue remodeling, as VEGF's permanent proangiogenic activity does. VEGF is also referred to as a vasculature permeability factor because it promotes vascular leakage. Increased microvascular permeability is a critical stage of tumor and wound angiogenesis. VEGF's primary function during the angiogenesis process is to promote plasma protein leakage, resulting in the formation of extravascular fibrin gel, a substrate for endothelial and tumor cell penetration and growth [17]. Table 2 show that The effects of Bitter Melon Leaves Extract on the Level of VEGF Serum.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Week 1</th>
<th>Δ on Week 4</th>
<th>( p ) within group</th>
<th>( p ) inter-group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of VEGF (pg/ml)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment Group</td>
<td>431.5±248.5</td>
<td>-194.5±197.9</td>
<td>0.002</td>
<td>0.39</td>
</tr>
<tr>
<td>Control Group</td>
<td>382.4±351.4</td>
<td>-190.8±324.9</td>
<td>0.04</td>
<td></td>
</tr>
</tbody>
</table>

Data are stated with the mean ± SD. The modified values of level of VEGF Serum showed significantly different for time or treatment effects (Independent t Test) at \( p < 0.05 \).

\( a \ p < 0.05 \) At the same time period, there is a significant difference in the change values between the treatment and control groups (Paired t-test)

\( b \ p < 0.05 \) After four weeks, there is a significant difference in the change values (Independent t test)

The results of this study showed no difference at the VEGF serum level in both treatment group and control group. The baseline of initial serum VEGF levels in the treatment group and control groups were found above the normal rate. Then, after giving the bitter melon and placebo extracts there was a decrease, but still within normal limits. Baba et al. (2001) examining the VEGF levels in DM patients with the level of HbA1c >7.5% and on average suffering from DM for 13 years showed the baseline of VEGF level of 33-37pg/ml [18]. Dantz, et al (2002)
conducted a study on the effect of hypoglycemia on VEGF, while the results showed that normal adult male VEGF levels before treatment were 86.1 ± 13.4 pg / ml [19]. Other studies related to VEGF in malignant disease have shown the normal VEGF level at < 300 pg/ml (in the range of 8.11 ± 1.60pg/ml to 294.20 ± 23.40pg/ml) with the difference based upon age and sex [20-21]. It has been known that VEGF level increases within 24 hours after the injury and reaches a peak on the third and seventh day and dramatically decreases [22]. The results of this study were inconsistent with the studies reporting the pro-angiogenic effects of bitter melon supplementation by stimulating proliferation, migration and tube formation in healing ulcers due to diabetes [10] and by stimulating the growth factors, such as insulin [23].

The conditions that regulate VEGF gene expression are as follows: (1) hypoxia, oxygen pressure plays a critical role in the regulation of VEGF gene expression both in vitro and in vivo. Rapid and reversible induction of VEGF mRNA expression occurs in response to hypoxia (pO2), as well as ischemia caused by arterial occlusion. An increase in VEGF mRNA levels suggests that VEGF can promote spontaneous revascularization after ischemia. [17]. Impaired systemic VEGF levels have been reported in a variety of pathological conditions such as tumor growth, coronary artery disease and chronic hypoxic diseases. This observation is thought to be related to oxygen regulation [24]. For respiratory diseases manifested by chronic hypoxia, VEGF regulation is still conflicting. Respiratory disease such as idiopathic pulmonary fibrosis, VEGF levels are decreased compared to controls in healthy people, whereas in smokers and chronic obstructive pulmonary disease (COPD) are increasing [24]. However, all of these data can be confused by the presence of comorbid known to affect VEGF such as insulin resistance [25]; (2) Cytokines, or specific cytokines or growth factors, induce the expression of VEGF mRNA and/or the release of VEGF protein. TNF- is the most potent activator of VEGF mRNA expression, whereas IL-1, TGF-1, and Interleukin-6 have a lesser effect. (3) Differentiation and transformation; differentiation and transformation play a critical role in the regulation of VEGF gene expression. VEGF mRNA expression is increased during the transition of 3T3 preadipocytes to adipocytes or during C2C12 myogenic differentiation. In contrast, when pheochromocytoma cells differentiate into nonmalignant neuron-like cells, VEGF gene expression is decreased or suppressed [17].

4 Conclusion

The oral supplementation of bitter melon extract can reduce serum VEGF levels in the DFU patients. This study suggests to do an examination for the tissue oxygen pressure and number of adipocyte cells to observe its effects on serum VEGF levels.

Acknowledgments

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Ethics approval. The Commission of Health Research Ethics Dr. Moewardi/Medical Faculty of UNS, Surakarta, Indonesia approved the protocol (Number: 542/IV/HREK/2019), which complies with the Helsinki Declaration.
Conflicts of interest. All authors report no conflict of interest.

References


Adherence to Fluid Restriction and Quality of Life in Patients with Chronic Kidney Failure

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Abstract. Patients with chronic kidney disease should restrict the amount of liquid during their life. If they cannot control it, their body gets fluid overload and have harmful effects such as difficulty breathing and swelling. These problems can cause major changes in patients’ lifestyle and their quality of life. Find out the relationship of adherence to fluid restriction and quality of life in patients with chronic kidney failure. This research used a descriptive correlation design with a Cross-Sectional approach. The sample of this study was 40 patients undergoing hemodialysis in PKU Muhammadiyah hospital of Gombong. It was conducted in March-April 2020. The respondents were selected by purposive sampling technique. Adherence to fluid restriction and quality of life questionnaire were used as research instruments. Data were analyzed descriptively using the Spearman rank test. Patients took control of fluid intake during the hemodialysis process in the adherence category (67.5%). Patients had a good quality of life category (65.0%). There was a significant relationship between adherence to fluid restriction with quality of life in patients with chronic kidney failure undergoing hemodialysis (p = 0.001). Further study expected can measure knowledge of patients with chronic kidney failure about how to do fluid restriction when undergoing hemodialysis and at their home.

Keywords: Adherence, Fluid restriction, Hemodialysis, Quality of life, Chronic kidney failure

1 Introduction

The kidneys are a vital human organ. Healthy kidneys have many important jobs like removing waste products and extra water from the body, controlling blood pressure, making red blood cells, and keeping bones healthy [1]. Kidney damage happens for more than three months, signed by structural or functional abnormalities of the kidney, with or without a decreased glomerular filtration rate [2].

The incidence and prevalence of patients with chronic kidney disease (CKD) are increasing worldwide. An article by Ellen (2020) confirmed that the global prevalence of Chronic Kidney Disease or CKD was 9.1% (697.5 million cases) in 2017. Nearly one-third of CKD cases were in Asia countries like China (132.3 million) or India (115.1 million)[3]. Whereas the Consolidated Report on Indonesia Health Sector Review in 2018 reported by Gani dan Budiharsana that in 2017, there were 10.550 CKD cases and increased up to 11.660 in 2020[4].
Patients with CKD are necessary to have renal (kidney) replacement therapy with dialysis. Dialysis makes it possible for patients with CKD to live with the disease for many years [5]. Hemodialysis prevalence increases from year to year in Indonesia. In 2018, the number increased to 2,754,409 actions. The duration of the Hemodialysis procedure will take time for more than 4 hours [6]. The population of Chronic Kidney Failure in the age group ≥15 years in the Central Java Province amounts to 96,794 [7].

Chronic Kidney Disease patients should be disciplined to dialytic procedures and fluid adherence restrictions [8]. Without the restriction of fluid, their physical will show oedema in around extremity parts. This condition makes the blood pressure increase and worsen the work of the heart, and pulmonary oedema causing the patient to get shortness of breath. Limiting fluid intake is essential so that CKD patients feel comfortable before, during and after hemodialysis therapy. This procedure was complicated for patients, especially if they are taking the drug such as diuretic. Because these drugs will cause thirst, which results in response to drinking [9].

Patients who undergo long-term hemodialysis have to face various problems, such as financial problems, difficulty in working, decreased sexual desire, depression and fear of dying, change their lifestyle, and spirit of life. QOL is an important parameter that needs to be addressed in chronic diseases like CKD. On the other hand, the energy of CKD patients has reduced strength, and it has affected parts of the quality of life (QOL) which includes physical health, psychological, spiritual, socioeconomic status and family dynamics [9]. The main objective of the study was to find out the relationship adherence to fluid restriction and quality of life in CKD patients at the Hemodialysis department.

2 Method

This cross-sectional study collected data by distributing a questionnaire to respondents. The respondents were CKD patients undergoing hemodialysis in PKU Muhammadiyah hospital of Gombong. A total of 40 CKD patients on maintenance at least a year, they were selected using purposive sampling method. Inclusion criteria were age between 18–65 years, durations of hemodialysis less than a year, and willing to participate in the study. CKD patients who were critically ill were excluded. They were recruited from March to April 2020. The data collection was started from March to April, 2020.

Sociodemographic information including age, gender, education, duration of illness, and duration on hemodialysis. To assess the patients’ adherence to fluid restriction we used Adherence to fluid restriction questionnaire, an instrument developed by Hirmawaty (2014) [10]. It was divided into six dimensions: 1) Daily fluid intake; 2) Daily urine output; 3) Changes in body weight; 4) Nutrition; 5) Environment support. The items are graded in a Likert scale. While to evaluate the QOL of respondents was measured using WHOQOL-BREF questionnaire. WHOQOL-BREF questionnaire consists of 26 items. Items 1 and 2 assess individual’s overall perception of QOL and health, respectively; the remaining items are categorized under physical, psychological, social, and environmental domains. Each item is rated by a 5-point Likert scale. The responses were scaled in a positive direction. The mean score of the items within each domain was used to calculate the raw score. Raw scores were then transformed to a 0–100 scale using a transformation formula. Higher score reflects a better QOL. WHOQOL-
BREF questionnaire has been validated for assessing QOL in patients with CKD in different settings and has been used to assess QOL by a number of studies elsewhere. We used sociodemographic data as predictor variables and all four domains, including items 1 and 2, as outcome variables.

This research was approved by the Ethical Committee of Sekolah Tinggi Ilmu Kesehatan Muhammadiyah Gombong, Indonesia and it used guidelines from the Declaration of Helsinki. It was declared that there was no conflict of interest.

SPSS version 22.0 was used for the analysis of data. The data were analyzed using a quantitative approach including univariate analysis and bivariate analysis. The univariate analysis was to examine a description of the frequency distribution and bivariate analysis was performed to show whether there is a relationship between the dependent variables and independent variables performed using statistical testing procedures/hypothesis, and it was evaluated using Spearman Rank test (a significance p-value of 0.05 and Confidence Interval or CI of 95%). The test shows a significant relationship if the p-values are < 0.05. Otherwise, it shows a non-significant relationship > 0.05.

3 Results and Discussion

3.1 Results

3.1.1 Sociodemographic: age, education, gender, and duration on hemodialysis

Table 1 shows the sociodemographic: age, education, gender, and duration on hemodialysis by statistic descriptive.

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Category</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>Young adult</td>
<td>4</td>
<td>10.0</td>
</tr>
<tr>
<td></td>
<td>Middle-aged adult</td>
<td>23</td>
<td>57.5</td>
</tr>
<tr>
<td></td>
<td>Older adult</td>
<td>13</td>
<td>32.5</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>40</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Elementary</td>
<td>15</td>
<td>37.5</td>
</tr>
<tr>
<td></td>
<td>Junior high school</td>
<td>13</td>
<td>32.5</td>
</tr>
<tr>
<td></td>
<td>Senior high school</td>
<td>9</td>
<td>22.5</td>
</tr>
<tr>
<td></td>
<td>Bachelor degree</td>
<td>3</td>
<td>7.5</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>40</td>
<td>100</td>
</tr>
<tr>
<td>Education Level</td>
<td>Elementary</td>
<td>15</td>
<td>37.5</td>
</tr>
<tr>
<td></td>
<td>Junior high school</td>
<td>13</td>
<td>32.5</td>
</tr>
<tr>
<td></td>
<td>Senior high school</td>
<td>9</td>
<td>22.5</td>
</tr>
<tr>
<td></td>
<td>Bachelor degree</td>
<td>3</td>
<td>7.5</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>40</td>
<td>100</td>
</tr>
<tr>
<td>Sex</td>
<td>Female</td>
<td>14</td>
<td>35.0</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>26</td>
<td>65.0</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>40</td>
<td>100.0</td>
</tr>
<tr>
<td>Duration of hemodialysis</td>
<td>≤ 6 months</td>
<td>17</td>
<td>42.5</td>
</tr>
<tr>
<td></td>
<td>≥ 6 months</td>
<td>23</td>
<td>57.5</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>40</td>
<td>100</td>
</tr>
</tbody>
</table>

Based on the Table 1, most of the respondents were in the category of middle-aged adult (57.5%), elementary education (37.5%), male (65.0%), and duration on hemodialysis ≥ 6 months (57.5%).
3.1.2 Adherence to fluid restriction

Based on the Table 2, it can be seen that most of the respondents who performed adherence in control the water intake, namely 27 respondents (67.5%).

<table>
<thead>
<tr>
<th>Category</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Adherence</td>
<td>13</td>
<td>32.5</td>
</tr>
<tr>
<td>Adherence</td>
<td>27</td>
<td>67.5</td>
</tr>
<tr>
<td>Total</td>
<td>40</td>
<td>100.0</td>
</tr>
</tbody>
</table>

3.1.3 Quality of life of patients with chronic kidney failure

Based on the Table 3, there were 26 respondents who had been in good quality of life (65.0%), and 14 respondents were in low quality of life (35.0%).

<table>
<thead>
<tr>
<th>Quality of Life</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor</td>
<td>14</td>
<td>35.0</td>
</tr>
<tr>
<td>Low</td>
<td>26</td>
<td>65.0</td>
</tr>
<tr>
<td>Total</td>
<td>40</td>
<td>100.0</td>
</tr>
</tbody>
</table>

3.1.4 Relationship between adherence to fluid restriction with quality of life of patients with chronic renal failure

Table 4 shows that most of the patients with chronic renal failure with adherence to fluid restriction were in adherence category and had a good quality of life.

<table>
<thead>
<tr>
<th>Adherence level</th>
<th>Quality of life</th>
<th>Low</th>
<th>%</th>
<th>Good</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-adherence</td>
<td>76.9</td>
<td>3</td>
<td>23.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adherence</td>
<td>14,8</td>
<td>23</td>
<td>85.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>35.0</td>
<td>26</td>
<td>65.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\( r = 0.516; p: 0.001 \)

The results of the Spearman Rank test showed a correlation coefficient \( r \) 0.516, \( p = 0.001 \) (<0.05), it means that there was a relationship between adherence to fluid restriction to quality of life in patients with chronic kidney failure at Hemodialysis department in PKU Muhammadiyah Gombong Hospital. The correlation coefficient \( r \) showed a positive value that CKD patients who can be adherence to fluid restriction, they will have good quality of life.
3.2 Discussion

3.2.1 Adherence to fluid restriction

The result data regarding respondent’s adherence to fluid restriction showed that there were 27 respondents (67.5%) were dominated in the adherence category. The reason why more than a half of the respondents was adherent because they got health education by nurses during undergoing hemodialysis treatment (pre, intra, and post). The nurses who were working at the hemodialysis department always conduct health education regarding fluid daily intake recommendation for CKD patients and measuring them before doing the treatment.

Definition of adherence is a person's behavior in taking medication, following dietary recommendations and making lifestyle changes by recommendations from health professionals [11]. Adherence or compliance is generally defined as the level of behavior of a person who receives medication, follows a diet and implements a lifestyle following the recommendations of health service providers according to WHO[11].

Chronic renal failure patients who do not comply with fluid intake restrictions will experience a buildup of fluid, causing pulmonary edema and hypertrophy in the left ventricle (Smeltzer & Bare, 2013). The accumulation of fluids in the body causes the work function of the heart and lungs to get heavier, which results in the patient's physical response to fatigue and shortness of breath, physical activity also disrupted and moderate exercise (Riyanto, 2011).

Patients with chronic renal failure will undergo long-term hemodialysis treatment (HD). It is a procedure intended to remove body waste products. This procedure was helped by a machine called a dialyzer. The frequency of HD treatment varies depending on the kidney function status, and the average patient gets it two-three times a week. At the same time, the duration of hemodialysis each treatment is at least three to four hours (Brunner and Suddath, 2013).

This research was in line with the study conducted by Nadia (2014) regarding the relationship between motivation and adherence of CKD patients with chronic kidney failure at the hemodialysis room in dr. Achmad Mochtar hospital of Bukit Tinggi (2014) that the respondents were in the adherence category (65.7%). Sumigar's research (2015) showed that dietary adherence included fluid restriction is core management to maintain kidney function continuously with the principle of low protein and low salt, where patients must spend time undergoing the necessary treatment.

3.2.2 Quality of life in for patients with chronic kidney failure

The resulting study showed there were 26 respondents (65.0%) in the good quality of life category. Quality of life for CHF patients undergoing hemodialysis therapy is a problem and needs the attention of health providers. Research by Kazama et al. (2019) showed that patients with chronic kidney disease (CKD) required more attention and knowledge related to supporting factors that can improve their QoL. Even though they were in the stage of terminal renal failure, the sufferers can live a long life with a reasonably good quality of life.

Quality of life definition is a patient's ability to enjoy normal life activities. It is an important consideration in medical care because some medical treatments can seriously impair life quality without appreciable benefit. In contrast, others greatly enhance their quality of life. Quality of
life is not related to how long a person will live because it is not the human domain to determine it. To achieve the quality of life, it is necessary to fundamentally change the way patients perceive terminal renal failure (CRF) itself.

New CKD patients tended to have higher anxiety and stress levels than old CKD patients with prolonged hemodialysis therapy. Patients undergoing hemodialysis therapy may experience impaired cognitive, adaptive, or social function compared to other normal people. The psychological problems experienced by patients who underwent hemodialysis therapy since the patient was diagnosed with chronic kidney failure. Feelings of loss of control, guilt, and frustration also play a role in the patient's emotional reactions. CKD disease makes patients feel helpless, realizing that the death of the body will make the patient feel very anxious and feel that his life is no longer meaningful so that the patient's quality of life decreases [12]. Other problems like financial, difficulty in keeping a job, lost sex drive, depression and fear of death. It will affect compliance with the restriction of fluid intake for CKD patients [13].

The cost of CKD treatment can be a burden for CKD patients. In Indonesia, this cost is expensive if they do not have health insurance to cover it. For a hemodialysis treatment was at least Rp. 700,000, it made obstacles for those who have limited budgets and do not have health insurance. CKD also made patients do not have a lot of activity at home, resulting in reduced physical health conditions [14].

The quality of life depends on the cultural norms and perceptions of the population. Quality of life-related to health Health-Related Quality of Life (HRQL) includes physical and mental limitations and positive expressions of physical, mental, and spiritual well-being. It can be used as an integrative measure that unifies mortality and morbidity and is an index as an element that includes mortality, morbidity, functional limitations, and being in good health [15].

CKD patients undergoing hemodialysis often report decreased quality of life. According to a study by Rahman et al. (2013) that CKD patients experienced a decrease in the patient's quality of life both physically, mentally, socially, and environmentally. The quality of life of CKD patients undergoing HD was attractive to health providers to explore and maintain its quality of life [16]. Lacson (2010) explained that CKD patients experienced a decrease in quality of life, including physical, mental, and social well-being [17]. The World Health Organization Quality of Life states that quality of life is an individual's perception of abilities, limitations, symptoms, and psychosocial characteristics of life in the context of culture and value systems to carry out their roles and functions [18]. Research conducted by Sathvik et al. (2008) in a healthcare unit in India using WHOQOL-Brief showed that the quality of life for healthy individuals or kidney transplants is much better than patients undergoing HD [19].

3.2.3 Relationship between adherence to fluid restriction and quality of life in patients with chronic renal failure

Results showed that most respondents were in the adherence category during the hemodialysis and good quality of life. For the patient with chronic kidney failure, proper nutrition, and adequate food are needed to provide a better quality of life. Inadequate nutrition is a significant predictor of death in hemodialysis patients [20], 2016). The chronic renal failure diet helps manage all types of food CKD patients, incredibly fluid intake.

Patients' ability to fluid intake restriction, nutrition status, medication adherence, and commitment undergo twice-weekly HD can improve the patient's quality of life. A study conducted by Black & Hawks (2014), that hemodialysis management did not treat CKD but may slow the progression of the disease, help the kidney function, delaying the need for transplants as long as possible, eliminate waste products of the body, and providing quality of
life optimal for the patient [21]. Albery & Munafo (2011) said that adherence refers to a situation where an individual's behavior is equal with the action recommended or advice by a health practitioner or information obtained from some other health source of information. For instance, its adherence is that patients with chronic renal failure routinely undergo the recommended fluid intake restriction [22].

Adherence plays a vital role in sufferers of chronic disease to maintain patient survival. To achieve success in chronic disease management, individuals must be responsible for many aspects of their treatment on a regular and long-term. Patients need to incorporate lifestyle changes and other behavioral changes into their daily routine [23]. The psychological processes are required in adherence and non-adherence with a set of measures details to give the interventions which are designed to maximize the patients' society or benefit of patients from undergoing the treatment.

To overcome the severity and complications of chronic renal failure disease, a proper implementation and treatment are needed. Renal replacement therapy and a strict diet for chronic renal failure are the best treatments to avoid the worst possible or complications of chronic renal failure. The most common kidney replacement therapy in Indonesia are hemodialysis and dialysis therapy. In general, hemodialysis therapy and CKD diet therapy have several goals, such as, to keep nutrition status, maintain the patient's life and its well-being and provide optimal quality of life. [24].

Quality of life is a condition in which patients with their disease can feel physically, psychologically, socially and spiritually healthy, and optimally able to do activities and to be happy for themselves and others.[25]. The chronic renal failure diet is a diet setting recommended to limit consuming all types of food with specific aim. Therefore, most patients with chronic kidney failure should follow their diet program [26]. The results of this study were also consistent with a study about CKD diet that there was a significant relationship between folic acid consumption, low protein diet and vitamin B with good quality of life in patients with chronic kidney failure [27].

### 4 Conclusion

Patients with chronic renal failure at PKU Muhammadiyah Hospital of Gombong were in the adherence category into controlling fluid intake during the hemodialysis process (67.5%) and having a good quality of life (65.0%). There was a relationship between adherence to fluid restriction (intake) and quality of life in patients with chronic renal failure (p = 0.001).

### Acknowledgment

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References


Measuring Early-Primary Students Resilience through Playful Learning

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¹Universitas Muhammadiyah Ponorogo, Ponorogo, Indonesia, ²³⁴, ⁵⁶⁷

Abstract. The Indonesian government has established a policy that the learning process for all levels of education continues during the COVID 19 pandemic with an online or digital system, meaning that students carry out learning activities at home digitally. The problem that arises is the level of social resilience of students in learning during the COVID-19 period in Indonesia, which indicates that the COVID-19 pandemic still exists. This study aimed to analyze the level of social resilience of students in early education and basic education during the COVID-19 pandemic and how social structures affect the level of resilience. The research methods used were qualitative and quantitative approaches. A survey was conducted on 115 respondents. Students’ resilience was measured by the NMRQ Questionnaire (Nicholson McBride Resilience Questionnaire) and the factors affecting resistance were measured by the SAJA Questionnaire. From the qualitative approach, the study found that the level of social resilience of students was quite high due to the application of the ACES-based environmental and fun learning model using lego, makey-makey, masks, and music. From the quantitative approach, most students could build resilience and change their perceptions from difficult conditions to pleasant learning conditions due to social and economic factors. The factor that most influences the level of social resilience of primary school early childhood was the family socioeconomic factor.

Keywords: Social resilience; early primary school students; NMRQ method; ACES

1 Introduction

Indonesian Education Minister, Nadiem Makarim, stated that there had not been any discussions and solutions that were truly effective globally to resolve the education crisis that occurred as a result of the policy of closing all schools to prevent the corona virus. Not only in Indonesia, almost 50 other countries have implemented similar policies and changed the learning system into online learning. At least distance learning is one solution that can be done, although initially it will be responded negatively to achieve educational outcomes and quality [1].

One of the strategies of the Indonesian Government in suppressing the spread of Covid-19 is to establish a Large-Scale Social Restriction (PSBB) policy [2] to prevent the spread of the COVID-19 pandemic nationally. The PSBB policy is regulated in Government Regulation Number 21 of 2020 which was enacted on March 31, 2020 [3]. As an archipelago country, many constraints have been reported due to the PSBB policy, such as geographic challenges and challenges related to infrastructure. For example, the lack of even internet access in the
outermost, underdeveloped and marginalized areas, the lack of readiness of students and teachers for online learning, and other technical obstacles that require access to cities.

Children in Indonesia have become “victims” of government policies in terms of meeting their learning needs. Until 1 April 2020, UNESCO recorded that at least 1.5 billion school-age children were affected by Covid-19 in 188 countries, including 60 million in Indonesia [4]. But we must understand that above all interests, health factors must be the main reason to survive and rise from this pandemic.

The Indonesian news head office stated that the Indonesian education ministry has moved quickly by making a policy of broadcasting subject matter on national TV, internet data assistance for academics, developing android-based distance learning applications such as Learning Resources, Digital Classroom, Virtual Laboratory, Quizizz which are all accessible by teachers, parents and students to learn from home [5]. Some children study at home with assistance from their parents, but some parents have not been able to accompany them to study independently because of their business. The question that arises, “Are children ready to learn without assistance?” and “Are parents ready to accompany the learning process?” As we all know, the age of children is the age that really needs assistance and supervision from their closest people. The resilience of children in this phase is questioned, “Is it true that at an early age child already have a good level of resilience?”

Resilience is one's ability to remain steadfast even in difficult circumstances [6]. The level of resilience of children when affected by a disaster, depends on their adjustment to the system, both the system of children's relationships with their nanny, family, and friends. As well as the resources that they can get from their family, environment and school [7]. Resilience in learning during the pandemic is expected to be formed by the majority of early childhood. This is because resilience is very influential in maintaining the enthusiasm and motivation of children's learning so that they are not left behind in studying learning materials and can maintain the quality of education of Indonesian children [8].

2 Literature Review

As an effort to develop children's resilience, this study applied several playful learning methods such as making masks from used materials, makey-makey, and learning while playing music. The concept of play in Playful learning is the key to expanding and developing children's learning experiences with the surrounding environment, developing learning autonomy and children's learning freedom. By playing, children can explore gradually, repeatedly, and continuously on understanding and interpretation of various concepts [9].

To measure the level of children's resilience, three indicators can be used as reference, namely absorptive related to the stability of the child's situation, adaptive related to the flexibility of the child's situation and transformational capacity related to the child's situation which requires a structural change [10].

Early-primary students are children who are formally at the kindergarten and elementary school levels. Early children are in the age range of 5 to 6 years, while primary children are in the age range of 6 to 13 years. According to Piaget, early children are still at the level of preoperational thinking and primary children are at the level of operational concrete thinking, both of which are the ability to think on basic concrete concepts [11].

The ACES project (https://aces.gchangers.org/) aims to investigate transformative education towards the development of social resilience in young people in primary and
secondary education through the lens and practice of fun learning. It particularly studies the impact of the pedagogical model on Sustainable Development Goals (SDGs) or sustainable development in the fields of poverty, welfare and health, quality of education and gender equality in Indonesia, England, Malaysia and Vietnam. Therefore, this article investigated resilience and the factors that could impact young people in their learning. The study used qualitative and quantitative approaches for measuring resilience and explores how social structures affect the level of resilience.

3 Method

This study used qualitative and quantitative approaches. The instrument used to measure the level of children's resilience was adapting the Nicholson McBride Resilience Questionnaire (NMRQ) questionnaire which has 12 questions and a minimum score of 0 and a maximum of 60 with a score of: 0-37 "developing"; 38-43 "established"; 44-48 "strong"; and 49-60 “exceptional”. The use of the NMRQ instrument was based on considerations to analyze the level of resilience of children during the Covid-19 pandemic.

The sampling technique used in this study was purposive sampling, in which the sample was selected according to the criteria determined by the researchers. The inclusion criteria of the participants were all registered early childhood and basic education students who were actively participating in learning at formal education institutions in Ponorogo Regency, and were willing to become respondents by filling in a letter of approval given and guided by the ACES Indonesia Ambassador. The number of students who took part in this study was 115 participants.

Furthermore, the instrument for measuring the factors that affect children's resilience was the SAJA questionnaire (2018) with indicators to measure social structure, consisting of social and economic status, health status, educational level, and living conditions at home. SAJA instrument has 9 questions on a 1-10 Likert scale with details include 1-3: Never, 4-6: Rarely, 7-8: Sometimes, 9-10: Always [18]. To identify the correlation of resilience and social structure, ordinary least square and causality analysis were used because it uses the ordinal data type [18]. Researchers have asked for consent from parents and participants with a total of 115 participants before data collection. In addition, the researcher has also conveyed the research objectives to the respondents, then calculates and processes the data using STATA.

\[ NMRQ = \alpha + \beta_1SES_1 + \beta_2HS_2 + \beta_3EL_3 + \beta_4LHO_4 + e \]  

SES : Social economy status  
HS : Health Status  
EL : Education Level  
LHO : Land and home ownership

4 Results and Discussion

Findings regarding students in early childhood education (3-6 years) show higher resilience in the developed and established categories compared to students in primary education. These
findings echo Piaget's theory which states that early school children are in the age range for personality formation. Children become happier individuals when forming groups (with friends, relatives, and parents) and when exploring their environment [11]. Preschoolers mostly define themselves in terms of activities and physical abilities such as "I can run fast, I can climb stairs, I can draw flowers". This reflects their sense of initiative to carry out an activity, and children's need for independence when facing new lessons [12]. The home environment is a learning center for children because when they are in the home environment the children's learning attitude is first formed [13]. Thus, it can be concluded that early childhood has higher learning resilience during the pandemic than elementary school children because of their simple (pre-operational) thinking patterns. Their group learning needs have been met with the participation of family members at home during the pandemic.

Primary school students (6-8 years) show higher resilience at strong levels; similar to the OECD 2018 findings which stated that 89% of students agree or strongly agree that they can usually find a way out of difficult situations (OECD average: 84%), and 59% agree or strongly agree that, when they fail, they are worried about what others think of them (OECD average: 56% of students). This is also because activities at home are more open and freer compared to activities in preschool. Primary schools are more defined and regulated in a formal sense.

Students in primary school also show higher resilience in the exceptional grade category when compared to early school. It has been reported that students in Indonesia are among the most cooperative, compared to other PISA participating countries and economies (PISA Index 0.34, rank 7/77, 2018) [14]. Around 91% of students in Indonesia report sometimes or always happy.

In short, all students (early primary school students) have strong social resilience scores. Social resilience (strong level) means that children are able to learn in a stable (absorptive) and flexible (adaptive) during a pandemic period with changes in the learning system that are far different from before (transformational capacity). This is influenced by the implementation of playful learning in learning which is able to attract attention to learning and build early-primary students' intrinsic and extrinsic learning motivation during the pandemic so that it has a positive impact on the development of children's social resilience. This finding is supported by Prensky's theory which states that early childhood learning retention which is classified as digital native can be increased by using learning activities that attract their attention such as by implementing game-based learning supported by social interaction of all family members [16]. It was also previously reported that in Indonesia, 70% of students (OECD average: 67%) reported that the majority of students were satisfied with their life (students reporting between 7 and 10 on a 10-point life satisfaction scale) [15].

Early primary school students' self-actualization needs (surviving a pandemic) can be met if their basic needs are met, namely physical needs, security needs, love and feeling needs, and self-esteem needs. During the pandemic, when all students study at home, this need has been met in their individual homes [17]. Therefore, the strong level of resilience can be achieved because all students can actualize themselves more optimally when studying at home. Figure 1 shows the Maslow Hierarchy Needs Theory.
Table 1 shows the NMRQ Modelling Result.

**Table 1. NMRQ Modelling Results**

Dependent Variable: NMRQ  
Method: Least Squares  
Date: 11/06/20   Time: 14:06  
Sample: 115  
Included observations: 115

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>9.659854</td>
<td>3.047338</td>
<td>3.169932</td>
<td>0.0020</td>
</tr>
<tr>
<td>SES</td>
<td>3.278110</td>
<td>0.574314</td>
<td>5.707869</td>
<td>0.0000</td>
</tr>
<tr>
<td>HS</td>
<td>3.202355</td>
<td>0.366244</td>
<td>8.743768</td>
<td>0.0000</td>
</tr>
<tr>
<td>EL</td>
<td>2.630960</td>
<td>0.730700</td>
<td>3.600602</td>
<td>0.0005</td>
</tr>
<tr>
<td>LHO</td>
<td>2.405162</td>
<td>0.548530</td>
<td>4.384745</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

R-squared 0.652932  
Adjusted R-squared 0.640311  
S.E. of regression 3.714796  
Sum squared resid 1517.968  
Log likelihood -311.5392  
F-statistic 51.73512  
Prob(F-statistic) 0.000000

NMRQ = 9.659854 + 3.278110 SES + 3.202355 HS + 2.630960 EL + 2.405162 LHO  

(2)
The factor that most influences children's resilience is the socioeconomic status of their parents. Socioeconomic status and NMRQ have a positive relationship with a probability value of 0.0000 or 0%, which means that socioeconomic status affects NMRQ. With the coefficient value owned by the socioeconomic status of 3.287110, it means that if the SES increases by 1 level, the NMRQ increases by 3.278110. On the other hand, if the socioeconomic status decreases by 1 level, then NMRQ will decrease by 3.278110. In Maslow's theory of needs, socio-economic is at the level of primary needs on physical needs. When these basic needs have been met, the children's self-actualization in learning will be achieved and will have an impact on their strong level of resilience when learning during a pandemic and vice versa.

4 Conclusion

Strong levels showed that most early and primary students were able to build resilience and changed their perceptions from difficult conditions to acceptable learning conditions. The most influential factor for developing a strong level of resilience is socioeconomic status. The results of this preliminary study are used to create a conducive learning environment to strengthen the social resilience of students in several Kindergarten and Primary School communities in Indonesia.

Acknowledgement

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References


SDG’s, the State, and Data Accuracy of Sexual Violence in Indonesia

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Abstract. The number of violence against women in Indonesia continues to increase every year, whereas the elimination of violence against women is one of the SDG indicators. The data released by the National Commission on Violence Against Women and the Ministry of Women’s Empowerment and Child Protection confirmed this situation. The problem is, although the two state institutions regularly release data on violence against women, the data released does not nationally represent the data on violence. This study aims to find reasons on why data on violence in Indonesia cannot be used as material for policy making. By using ethnographic methods, this study found a number of facts why the data on violence in Indonesia is so unreliable. At the ministry level, the main constraints are with the forms that are difficult to fill in, the model of tiered bureaucracy that is useful for reporting, but with the higher the level, the less violence data there are, the limited number of registrar. Whereas National Commission on Violence Against Women data are constrained by a centralized and voluntary data collection model, that more than 65% of partners do not return the data collection forms. This results in both the Ministry and the Komnas Perempuan data being just the tip of the iceberg of the problem of violence against women in Indonesia.

Keywords: Violence against women, Women rights, Human rights, Violence data, Komnas Perempuan

1 Introduction

This research is based on one fundamental statement: Indonesia’s state of emergency on violence against women. The National Commission on Violence Against Women (hereinafter stated as Komnas Perempuan) End Year Notes [1] during 2019 recorded 431,471 cases of violence, an increase of 6% from 2018 of 406,178 cases [2]. From these data, 87% of those cases of violence are sexual violence against women. The Ministry of Women's Empowerment and Child Protection (hereinafter abbreviated as MoWECP) recorded that in 2019, there were 1,567 cases of violence against women [3]. It is surprising, that the two state institutions produce very much different data. Even if we use the Komnas Perempuan’s data, when compared to the total population of Indonesia which is more than 267 million, the number of reported violence is only 0.2% of the population.

If we look at the data on violence against women that occurred in more than a decade, we can see that the trend of violence experienced by women has increased from year to year. Komnas Perempuan noted that in 2018 there were 406,178 reported cases of violence against
women, and this figure had increased sharply from 348,446 cases in 2017, and 259,150 cases in 2016 [4][5]. However, although statistics on cases of violence are available, they do not indicate the true magnitude of the problem. The lack of credible data in Indonesia and the many cases of violence against women throughout Indonesia that are not reported have become a major obstacle in taking effective action in eliminating violence against women [6]-[8].

There has been much criticism about the unreliable data on violence in Indonesia [9] especially the validity and reliability of data on violence against women produced by institutions such as the Komnas Perempuan and the MoWECP [10]. Data on violence against women collected by the Komnas Perempuan does not guarantee the accuracy of the data because the largest source of data collected is from the religious court instead of from the police data. Even though the data collection of cases of domestic violence shows data that continues to increase throughout the year, the data does not collect basic information on how many women victims of domestic violence were killed by their husbands or partners. In this case, the government is still collecting data that is general and not detailed. On the other hand, the validity of data in the Religious Courts referred to by Komnas Perempuan is also questionable, because 85% of those is data of divorce with violence even though in practice there are differences in perception that not all divorces are caused by violence. This can be seen from the classification of court decision data by the Supreme Court which confused the cause of divorce [11].

In Indonesia, there are currently two institutions that play the role of coordinators of data collection on violence against women that become national data references: the MoWECP with the Online Information System for the Protection of Women and Children (MoWECP Symphony) and the National Commission on Violence against Women (Komnas Perempuan) with a data collection system through its annual End of Year Notes (Catatan Akhir Tahun/Catahu). The problem is, both the data made by the Komnas Perempuan and the MoWECP are invalid, even absurd. For example, the Komnas Perempuan recorded that the Provinces of Maluku, North Maluku, Papua and West Papua had zero violence. The same thing also comes from MoWECP data. This is certainly not realistic where in these regions, especially Papua and West Papua, HIV/AIDS prevalence and sexual violence are very high. Not to mention the many rules of customary laws that harm women's rights or discriminate against women. In comparison, a comprehensive study of violence in Papua found that 60% of men who had partnered claimed to have committed physical and/or sexual violence against their intimate partners and nearly 44 percent of men who had ever partnered stated have raped their partners [12].

This study aims to explain difficulties in data collection on violence in Indonesia. With a focus on how the violence data collection model is carried out by Komnas Perempuan and the MoWECP, and what are the strengths and weaknesses of each model. Violence data still needs to be addressed by various parties, considering that the statistics of the figure need to be read as an iceberg phenomenon that does not describe the true state of violence against women in society [13].

2 Method

This research uses ethnographic methods, by conducting in-depth interviews with the Komnas Perempuan research division, the data collection division of the MoWECP, and directly visiting the Integrated Women's Empowerment and Child Protection Service Centers in five cities: Depok City, Bekasi City, Bekasi Regency, Bogor City, and Bogor Regency. In addition
to conducting interviews, the research team also conducted direct observations to see how the data collection was carried out, technical and detailed implementation of data collection, and how the data was tabulated. In addition, the team also reviewed various policy documents on data collection on violence against women in Indonesia, starting from the regional level to the central government.

3 Results and Discussion

3.1 The MoWECP’s data versus Komnas Perempuan’s data

The Ministry of Women’s Empowerment and Child Protection (Kementerian Pemberdayaan Perempuan Perempuan dan Perlindungan Anak/KPPPA) was established in 1978, previously named the Deputy Minister for Women's Role. Initially the MoWECP focused more on the economic empowerment of women in the household, but since 2009, under Linda Amelia Sari, the ministry expanded its scope of work, not only to economic and social issues for women, but also protection for children.

The MoWECP has its task of organizing the affairs of women's empowerment and child protection in the government to assist the President in organizing state government. In formulating and determining policies, coordinating and synchronizing policy implementation, and supervision related to women's empowerment and child protection, this task includes protection of women and children from violence against them. The violence data collection model conducted through the Online Information System for the Protection of Women and Children (MoWECP Symphony). The MoWECP’ Symphony is carried out in stages, starting from partner data in each city, to Integrated Women's Empowerment and Child Protection Service Centers (Pusat Pelayanan Terpadu Pemberdayaan Perempuan dan Perlindungan Anak/P2TP2A) data in each city, up to the provincial level P2TP2A, and ends at the national data level. The national data is then processed into MoWECP Symphony data.

Considering the complexity of the bureaucratic pathway, thus since 2002, the government established the P2TP2A, and has been formed in 34 provinces and 390 regencies/cities in Indonesia [14]. The existence of P2TP2A as an embodiment of an integrated service mechanism between the Government and the community with the composition of its membership consists of various elements such as the Police, Attorney's Office, Court of Law, Regional Office of Law and Human Rights, Regional Office/Office of Religion, Regional Development Planning Agency (Badan Perencanaan dan Pembangunan Daerah/Bappeda), Office of Health, Office of Social Affairs, Office of Labor, Office of Education, as well as community organizations, religious institutions, professional institutions, and academics.

In addition to providing case handling services, P2TP2A also provides data collection and documentation of cases handled by each agency/institution. This is where the MoWECP obtains some of the violence data published annually. In 2010, the MoWECP issued the Guidelines on the System for Data Recording and Reporting on Violence against Women and Children which must be used by all levels of government, from the central government to the regional governments. This also includes all organizations that are partners and are members of P2TP2A. It is at this point that the issue becomes crucial to underline, that even though there is a format that must be filled in, factually, data collection and documentation have not gone well.

There are two reasons why this system is not working well. First, the recording model carried out by P2TP2A is very bureaucratic and time consuming. With a tiered reporting model,
violence data collection should be easier to do. But the facts in the field, the higher the level of reporting, and the fewer cases are recorded. There are many incidents where cases of violence are very high in one city, but when they go up to the provincial level, the case data number is reduced. This causes the emergence of the pyramid model, where the higher the level of government, the less violence data recorded.

To understand why this is happening, it is important to look at what is happening at the lowest level: P2TP2A at the city level. Periodically, once a year, city level P2TP2A must report the data to provincial level P2TP2A. There are 28 forms pages, with more than 76 columns that must be filled for each reporting period. Each report must include complete report details for each case, each case requiring no less than 12 sheets of form, with 53 columns to be filled in, not including image documentation, post mortem evidence, Minutes of Police Examination, trial transcripts, verdicts and other reports. Another reason why P2TP2A does not have an adequate recording system is due to the absence of individuals who have special competence in recording using the database and documentation system. This reason arises more because of the complicated data collection model carried out by P2TP2A. This is due to the P2TP2A’s data collection system is sourced from data collected from service providers and other working partners, which in many cases are extremely incomplete.

In addition to the MoWECP Symphony, data on violence against women was also issued by Komnas Perempuan. Komnas Perempuan has a mandate to carry out monitoring, including fact finding and documenting of violence against women and violations of women's human rights, as well as dissemination of the results of monitoring to the public and taking steps that encourage accountability and handling of victims of violence. Furthermore, Komnas Perempuan also provides advice and considerations to the government, legislative and judicial bodies, and community organizations to encourage the preparation and legalization of a legal framework and policies that support efforts to prevent and overcome all forms of violence against women, as well as protection, enforcement and promotion of women's human rights.

From the beginning, Komnas Perempuan has always provided an annual report on the data collection of cases of violence against women through the Komnas Perempuan End of Year Record annually. The data was compiled by Komnas Perempuan from three sources: (1) District Court and Religious Court, (2) Komnas Perempuan partner service institutions, and (3) the internals of Komnas Perempuan itself, which in this case coming from two units: Service and Referral Unit (Unit Pelayanan dan Rujukan/UPR) formed to receive reports from victims who came directly to the Komnas Perempuan, and the Monitoring Unit that manages reports that come in via mail and electronic mail.

There are at least three problems in the data collection conducted by Komnas Perempuan. First, the violence data from the District Court and the Religious Court cannot be fully used because it is very general. Court data only covers divorce and domestic violence data that has been tried and has legal force. No details of violence arose from trial cases, for example violence such as what happened, who were the victims and perpetrators, or in what context the violence occurred. Details like this are usually in the police, whose data are not actually used by Komnas Perempuan. In addition, because trial data are cases that end in court, there is no data regarding the handling of cases of violence that do not reach the court, either through mediation or victims who withdraw their reports. As a result, the violence data from the court is only the tip of the iceberg of various cases of violence.

Second, although Komnas Perempuan's data collection model is advantageous because it cuts off the bureaucratic pathway which makes the potential for data on violence lessens, or even lost, this data collection model is very dependent on the willingness of partner service institutions to submit data. Unlike the MoWECP Symphony data collection model, which is
carried out in stages, the Komnas Perempuan data collection model is carried out directly in each region. Komnas Perempuan directly requests data from all service partners in all regions, including P2TP2A and various NGOs and CSOs engaged in protecting victims of violence. The problem is, this data collection is voluntary, meaning that each institution will be given a number of data collection forms but there is no obligation or any mechanism from Komnas Perempuan to collect the forms that have been given.

Third, internally Komnas Perempuan also opened report and service posts for victims of violence, but the level of reporting was very low. This problem lies with the Komnas Perempuan’s institution is centered in Jakarta. Komnas Perempuan does not have a regional representative office, so everyone who wishes to report to Komnas Perempuan must visit the Komnas Perempuan’s office in Jakarta. Thus, this system is directly limiting access for women in remote areas to obtain direct services provided by Komnas Perempuan. The only way for women in remote areas to report to Komnas Perempuan is only through partner institutions, whose reports of their handling will be given to Komnas Perempuan.

3.2 Why Data Matters?

Data collection is very important, because it is a source of information about existing acts of violence, as well as how the handling of cases is carried out and what the follow-up. Poor handling of cases can result in the bad data collection cases as well, likewise, bad data collection will result in poor handling policies as well. The issue of data collection will be related to how and by whom the data is inputted. The unclear standard mechanism of cases handling in service institutions or agencies makes it difficult to do data collection especially when it is added by the lack of human resources inputting the data. Even if each institution has officers who specifically tasked to register, the officer does not necessarily have an understanding of the importance of a complete and accurate data collection. With such a tendency, it cannot be denied that there is an increasing number of cases of violence against women that are not reported or under-reported data by the public or reported but the development of cases are unclear or stalled in law enforcement officers because the data collection of cases that have not been optimal.

In this case, data collection on violence against women can be done in two ways: through surveys and administrative record data collection models. The main advantage of recording violence through surveys is that prevalence rates can be calculated, so that patterns or generalizations of violence cases can be generated. The survey results can provide detailed information related to victims of violence or perpetrators such as socio-demographic characteristics, attitudes/behaviors, and experiences of past acts of violence. The biggest problem of this model is the distribution of Indonesia's territory that is very vast and population density that is uneven. If it is only focused on the city, the survey model cannot capture the problem of women in rural areas, and vice versa. Too wide demographic coverage makes the survey model difficult, not to say impossible, to do.

With the limitations of the survey model, the state, through MoWECP Symphony and Komnas Perempuan, chose to use the administrative data collection model. The administrative data collection on violence against women offers several advantages. First, these administrative records are usually collected regularly which may involve a number of institutions/organizations. Because every report of a violent incident is recorded, the data obtained can be more up-to-date. Second, in terms of funding, administrative records are certainly cheaper and more cost-effective compared to surveys that must be conducted every year with rather large funds. The data collection model undertaken by the MoWECP
Symphony and Komnas Perempuan is an administrative data collection model, because it is based on direct reports in each region.

However, there are some fundamental weaknesses in the administrative data collection model, namely: (1) data from administrative records cannot be used to calculate prevalence rate because administrative records are designed and intended for recording purposes only, therefore the information is limited and only provides information on the number of recorded cases. In addition, the use of administrative records is also often constrained by data coverage so that its use is very limited. (2) The definition used does not follow international standards so that it may produce figures that cannot be compared with other countries. (3) inconsistencies in the application of data collection and quality assurance as well as missing data due to mistakes of officers or officers with indifferent attitude.

4 Conclusion

In early 2020, the Komnas Perempuan published an Annual End Year Notes, which for the umpteenth time, the data was very different from the MoWECP Symphony data. Both systems, the MoWECP Symphony and the Komnas Perempuan year End Notes each has a number of advantages and disadvantages. The main strength of MoWECP Symphony data lies in the guideline of recording and reporting system on data of violence against women and children in 2010, which is mandatory, in accordance to the guidelines on data collecting and reporting, carried out in stages and coordinated, and because it is mandatory, there will be a warning because it has become a part of institutional performance standard. The main disadvantage of the MoWECP model is that there is no verification mechanism that ensures whether the data collected and reported is in accordance with the existing guidelines, and ensures the validity of the data at the local level all the way to the national level. This is due to the lack of monitoring and evaluation of data collection conducted by the region, whether or not it is in line with the MoWECP guidelines. In addition, the recording of violence against women of MoWECP is still mixed between men and women, not to mention the data on child violence which is also unclear in the details of the report. The system developed by Komnas Perempuan has its advantages in the data collection system that is in collaboration with partner institutions, both central and regional. This system is more reliable due to the real time case handling data from partners and P2TP2A. However, the main weakness of this system lays in the voluntary reporting basis and that there are no sanctions, which results in a forms’ very low rate of return, whereby in practice only 10-30% of partner institutions return the forms to Komnas Perempuan each year. In addition, there is no organizational structure that reaches all the way to the regions, and there is no monitoring and coordination for institutions that do not return the data collection forms so that the data collection processes have not been coordinated and tiered. These two models, the MoWECP and Komnas Perempuan, basically can be integrated through the One Data Indonesia model. But the main challenge lies precisely in the sectoral ego that is still strong in each institution. This becomes an obstacle in making an integrated violence data collection, which in turn will make it difficult to make policies to handle and eradicate cases of violence in Indonesia.
5 Acknowledgement

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References

The Analysis of E-Prescribing System Acceptance in Hospitals Using SEM-PLS

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Abstract. Electronic prescribing systems (e-prescribing) are designed to improve safety, quality, and health efficiency. The use of electronic systems was originally intended to save paper (paperless), but on its development, there are many benefits obtained from this system including reducing medication errors. The issues discovered during the use of the e-prescribing system served as the foundation for analyzing the use of the e-prescribing system in Palembang city hospitals. The test is conducted by examining the relationship between perceived ease of use and perceived usefulness and the intention to use variable. The purpose of this study was to determine user acceptance of an e-prescribing system using the Technology Acceptance Model (TAM). The Structural Equation Model was used to determine the influence of various factors (SEM). The evaluation data were collected through questionnaires distributed to e-prescribing system users. Seven out of ten indicators for perceived ease of use were significant, while all indicators for perceived usefulness were significant. According to the bootstrap estimation results, perceived ease of use and perceived usefulness both had an effect on intention to use. It can be concluded that the perceived ease of use and perceived utility of the electronic prescribing system used by several hospitals in Palembang have an effect on the intention to use.

Keywords: E-prescribing, technology acceptance model, structural equation model

1 Introduction

The advancement of information and communication technology has been quite rapid. It is quite helpful for humans in carrying out their activities, especially in the government sector which is commonly referred to as electronic government or commonly abbreviated as e-government. Today's e-government has become a bridge towards the transformation of good governance, especially in implementing good public services for the community. The application of e-government will help achieve the effectiveness and efficiency of government performance in giving public services. The application of e-government is not limited to general public services such as demography, but also in the health sector. One of them is the use of electronic prescribing system (e-prescribing).

An Electronic prescribing system (e-prescribing) is designed to improve security, quality, and efficiency in health service. Initially, the use of electronic system was intended to reduce the use of paper (paperless), but in its development, many benefits have been obtained from this system, including reducing medication errors. Medication errors can occur anywhere in the chain of drug service for patients, from industry, reading of prescription, drug preparation, delivery to patients, to monitoring. Within each chain link there are several actions, each action has the potential as a source of error. The benefits of an e-prescribing include preventing reading
errors, assisting doctors in determining e-prescribing preparations, helping doctors and pharmacists in their vigilance in determining drug administration (drug interactions, drug duplication, increasing drug purchase rates, shortening service time).

The issues discovered during the use of e-prescribing have been used to analyze the use of the e-prescribing system in Palembang hospitals. The purpose of this study was to determine user acceptance of an electronic prescribing system using the Technology Acceptance Model (TAM). The test was conducted by examining the effect of the variables Perceived Ease of Use and Perceived Usefulness on the variable Intention to Use. The influence of variables was determined using the Structural Equation Model (SEM) - Partial Least Squares method (PLS). SEM-PLS has made significant advancements in its application [1], and a wide variety of science fields have conducted research using SEM-PLS. SEM-PLS is a method that can overcome statistical problems including small sample size, overall model fit, and model specification errors [2]. The Application of the Technology Acceptance Model (TAM) in Testing the Acceptance Model for Regional Financial Information Systems is one of the studies that makes use of the TAM model [3]. In this study, testing was carried out using a linear regression model. [4] research results that the indirect effect shows that perceived usefulness affects behavioral intentions to use e-learning technology. According to research on the technology acceptance model analysis of the Shopee application in students [5], the factors of perceived usefulness, perceived ease of use, attitude, and intention to use all had a significant effect on students' acceptance of the Shopee application.

2 Theoretical Framework

2.1 Conceptual model

The Technology Acceptance Model, hereinafter referred to as TAM, is one of the adaptation theories of TRA (Theory of Reasoned Action) which was previously introduced by Ajzen and Fishbein in 1980 and proposed by Davis in 1989. TRA is a theory that explains a behavior is carried out by individuals who have the will or intention to carry out a certain activity. TAM is an analysis model for determining user behavior regarding technology acceptance, which means that TAM is an information system theory whose model is the process by which users come to accept and use technology, as illustrated in Figure 1 [6].

![Fig. 1. Research Model](image)

2.2 Structural equation model

SEM (Structural Equation Model) is a statistical technique for analyzing the relationship between latent constructs and their indicators, between latent constructs, and between latent
constructs and each other. Structural Equation Model (SEM) is a technique with a combination of path analysis and regression analysis that allows researchers to test simultaneously a series of interrelated relationships between measured variables and latent constructs [7]. Structural Equation Modeling (SEM) is the data analysis technique used to thoroughly explain the relationship between variables in the study. SEM is a collection of statistical techniques that enables the simultaneous examination of a large number of relationships.

2.3 Partial least square

Due to its independence from the measurement scale, sample size, and residual distribution, partial least squares is an extremely powerful method of analysis [8]. The structural model employs the equation to denote the relationship between the independent latent variable (exogenous) and the dependent latent variable (endogenous)[9]:

\[ \eta = B\eta + \Gamma\xi + \zeta \]  

Where (eta) is the random variable for endogenous latent variables with a size of m x 1, (xi) is the random variable for exogenous latent variables with a size of n x 1, B is the coefficient matrix for endogenous latent variables with a size of mxm and the coefficient matrix for exogenous latent variables with a size of n x 1, which illustrates the relationship between and measuring m x n, and (zet The latent variable structural model equation makes the following assumptions: () = 0, () = 0, () = 0, is uncorrelated with, and (-) is a nonsingular matrix.

2.4 Evaluation of the SEM-PLS model

The evaluation of the PLS models include two phases, evaluation on measurement models and evaluation of structural models. Evaluation measurement of model is carried out with the following criteria:

- By focusing on the loading value, indicator reliability quantifies the number of indicator variants that can be explained by latent variables. If the loading value is less than 0.4, the indicator must be removed from the model [10]
- Contract reliability, calculated through the value of \( \rho^* \) (composite reliability) and shows a value of more than 0.6

\[ \hat{\beta} = \frac{\sum_{i=1}^{n} \lambda_i^2 \epsilon_i}{\sum_{i=1}^{n} \lambda_i^2 + \sum_{i=1}^{n} \text{var}(\epsilon_i)} \]  

- Convergent validity, checked using average variance extracted (AVE) with the formula

\[ AVE = \frac{\sum_{i=1}^{n} \hat{\beta}_i^2}{\sum_{i=1}^{n} \lambda_i^2 + \sum_{i=1}^{n} \text{var}(\epsilon_i)} \]  

The minimum AVE value required to demonstrate adequate convergent validity is 0.5

Meanwhile, to evaluate the structural model, criteria [11] can be used.

- Using the following equation, R2 expresses the percentage of variance that can be explained by endogenous latent variables:

\[ R^2 = \sum_{h=1}^{H} \hat{\beta}_{jh} \text{cor}(X_{jh}, Y_j) \]
Path coefficient, illustrates the power relationships between constructs.

- The effect size $f^2$, which indicates whether endogenous latent variables have a significant effect on endogenous latent variables, can be calculated as follows:

$$f^2 = \frac{\hat{R}^2_{exclude} - \hat{R}^2_{include}}{1 - \hat{R}^2_{include}}$$  \hspace{1cm} (5)

2.5 Bootstrapping method

Bootstrapping methods have been developed by Efron as a tool to help reduce non-mainstay related to improper use of the normal distribution and its use. In bootstrap, pseudo data is created using information and properties from the original data, so that the artificial data has similar characteristics to the original data [12]. In the bootstrap method, sampling is carried out with the return of the data sample (resampling with replacement) [3].

3 Method

3.1 Sampling

Data collection was carried out in Palembang by giving questionnaires to e-prescribing users in several hospitals in Palembang. The number of respondents on the instrument testing was 100 people with initial testing of the instrument was given to 35 respondents. A total of 110 questionnaires were distributed for the instrument testing, 4 questionnaires were not returned and 6 questionnaires were incomplete. The data of respondents’ demography show in Table 1.

<table>
<thead>
<tr>
<th>Items</th>
<th>Category</th>
<th>Statistics (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>53</td>
</tr>
<tr>
<td>Education level</td>
<td>Diploma Degree</td>
<td>56</td>
</tr>
<tr>
<td></td>
<td>Bachelor Degree</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Bachelor Degree/ profession</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>Master’s Degree/ specialist</td>
<td>12</td>
</tr>
<tr>
<td>Occupation</td>
<td>Doctor</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>Specialist Doctor</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Physician</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Pharmacist</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Pharmacy technical staff</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>Pharmaceutical administration</td>
<td>3</td>
</tr>
</tbody>
</table>

3.2 Instrument

The research questionnaire used a multi-item scale (Likert scale) adapted and developed from the Technology Acceptance Model (TAM) to assess the e-prescribing system's acceptance. All items were structurally evaluated using a Likert scale ranging from "Strongly Disagree" to
"Strongly Agree," and several items were constructed using negative sentences. Before testing the instrument, an initial test was conducted on 35 respondents. The results of the respondents' responses were then used to carry out the instrument test.

3.3 Data analysis

In accordance with the research objectives, which are e-prescribing system acceptance analysis using the Technology Acceptance Model (TAM), path analysis and estimating model parameters, SEM-PLS is used with the aim of avoiding the limitations of using covariance-based SEM such as data distribution, small sample size, complex models with a big number of indicators, as well as model development and testing [13].

4 Results and Discussions

In the initial stage of the analysis, the researcher tested the normality of the data from the respondents’ survey results. The results showed that the data were not normally distributed because the results indicated the significance value was smaller than the significance level that the researcher used i.e. 0.05. Prior to testing the hypothesis that the latent variables in the structural model are related, the first evaluation measurement model for verification indicators and latent variables can be further tested. The measurement/outer model analysis is carried out by taking into account the constructs used [14] In this study, a reflective construct was used, so that in analyzing the calculation results of Cronbach’s Alpha, convergent validity, discriminant validity, and reliability were used [15].

A reliability indicator identifies the latent variable that accounts for the indicator's variance. When the loading value (λ) is less than 0.4, a reflective indicator should be eliminated (omitted) from the measurement model. The following are the results of the loading value (λ) obtained after the loading factor was reduced to less than 0.4. The elimination result shows in Figure 2 that each occult variable can explain the variance of each indicator measuring more than 60%. The next criteria which measure are the value of composite reliability and convergent validity (AVE). The result of the composite reliability value can be seen in Table 2, which indicates that the Composite Reliability (CR) of three latent variables is greater than 0.6. This means that all three measurement models are reliable because each contract variable is very well measured on predetermined indicators. The greater correlation between the indicators that comprise a construct, the more favorable the convergent validity value. The AVE value in Table 2 indicates that all three latent variables have a minimum AVE value of 0.5, indicating that the convergent validity measure is satisfactory or that the convergent validity criteria are met. Discriminant validity is the next test. Correlations between constructs and the AVE root were compared in this test. The result of correlation among latent variables shows in Table 3 and the AVE root value and discriminant validity for each latent variable show in Table 4.
Table 2. Value of Composite Reliability and AVE of the Measurement Model

<table>
<thead>
<tr>
<th>Variable</th>
<th>Composite Reliability</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1</td>
<td>0.877</td>
<td>0.511</td>
</tr>
<tr>
<td>X2</td>
<td>0.964</td>
<td>0.727</td>
</tr>
<tr>
<td>Y</td>
<td>0.839</td>
<td>0.569</td>
</tr>
</tbody>
</table>

Table 3. Correlation among Latent Variables

<table>
<thead>
<tr>
<th></th>
<th>X1</th>
<th>X2</th>
<th>Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1</td>
<td>1</td>
<td>0.629</td>
<td>0.864</td>
</tr>
<tr>
<td>X2</td>
<td>0.629</td>
<td>1</td>
<td>0.750</td>
</tr>
<tr>
<td>Y</td>
<td>0.864</td>
<td>0.750</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 4. AVE Root Value and Discriminant Validity for Each Latent Variable

<table>
<thead>
<tr>
<th>Variable</th>
<th>AVE Root</th>
<th>Discriminant Validity</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1</td>
<td>0.715</td>
<td>Qualify</td>
</tr>
<tr>
<td>X2</td>
<td>0.852</td>
<td>Qualify</td>
</tr>
<tr>
<td>Y</td>
<td>0.754</td>
<td>Qualify</td>
</tr>
</tbody>
</table>

Table 5. Research Hypothesis Testing

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Instruction</th>
<th>T-count</th>
<th>P-Value</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>H_1</td>
<td>Perceived Ease of Use ≥ Intention to use</td>
<td>4.371</td>
<td>0.000</td>
<td>Accepted</td>
</tr>
<tr>
<td>H_2</td>
<td>Perceived Usefulness ≥ Intention to use</td>
<td>3.352</td>
<td>0.001</td>
<td>Accepted</td>
</tr>
</tbody>
</table>
After testing the hypothesis, it is followed by an assessment of the coefficient of determination which aims to see the level of the relationship between latent variables / exogenous constructs to latent variables / endogenous constructs. The higher of the coefficient determination is the better relationship between the latent / construct variables.

<table>
<thead>
<tr>
<th>Latent Variable / Construct</th>
<th>R square</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intention to Use</td>
<td>0.584</td>
<td>58.4% variance of Intention to use is typically due to Perceived Ease of use and Perceived Usefulness</td>
</tr>
</tbody>
</table>

This study was conducted to see the acceptance of the e-prescribing system from its users. The model used in this study has been tested using PLS-SEM. PLS-SEM is used because it is suitable to be applied to complex models [13]. The PLS calculations reveal that exogenous variables, specifically Perceived Usefulness and Perceived Ease of Use, influence the measure of variance or predictive power of the endogenous latent variable path model Intention to Use by 58.4 percent (Table 6). In addition to examining the R-Square, the effect of endogenous variables on known exogenous variables was examined, as indicated by the effect size $f^2$ in the following Table 7.

<table>
<thead>
<tr>
<th>Variable</th>
<th>$f$-Square</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived ease of used</td>
<td>0.370</td>
<td>Strong</td>
</tr>
<tr>
<td>Perceived Usefulness</td>
<td>0.250</td>
<td>Medium</td>
</tr>
</tbody>
</table>

4 Conclusion

The acceptance of the e-prescribing system in hospitals in Palembang is influenced by perceptions of usage on the ease of use of the system. In this case, the parties using the e-prescribing system have the perception that the e-prescribing system is easy to use so that they can accept the e-prescribing system and continue to use it in their work. The acceptance of the e-prescribing system in hospitals in Palembang is also influenced by perceptions of the
usefulness of the system. In this case, the user's perception of the usefulness of the e-prescribing system will affect the acceptance of the system. According to the bootstrap estimation results, the variables Perceived Ease of Use and Perceived Usefulness had a significant effect on Intention to Use (p = 0.000). This indicates that both perceived ease of use and perceived usefulness influenced acceptance of the electronic prescribing system. Users of the e-prescribing system report that it is simple to use and beneficial to their work.

Acknowledgments

We would like to express our gratitude to the Ministry of Research, Technology, and Higher Education for funding this research, as well as to the Higher Education Service Institute (LLDIKTI) Region 2 for supervising the Research Institute. We would like to express our gratitude to Charitas Hospital Palembang and Charitas Hospital at Kilometer 7 Palembang for allowing us to conduct research on the e-prescribing system.

References

Integrating Religious Moderation Value through Learning Process in Islamic Higher Education (An Analysis to the Lecturer’s Perspective)

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Abstract. Islamic Higher Education are required to develop religious moderation throughout all campus components, especially for the students by integrating the values of religious moderation in the learning process. therefore, it is important to see how the lecturer’s perceptions are and how the strategies they use to integrate religious moderation in the learning process. This study used a qualitative descriptive approach through observation and interviews to the lecturers at Islamic institute of Muhammadiyah Sinjai. The researcher found the fact that most of the lecturers had read the literature about religious moderation, only a small part who had never read it, most had not applied it to the learning process and a small proportion had begun to integrate it into the learning syllabus and integrated it into the courses that they taught. For the institution it can be a reference to provide a wider understanding of religious moderation in Islamic higher education, and for lecturers it become a motivation to always study and understand religious moderation and to try to make innovation and integrate certain values in the learning process.

Keywords: Religious moderation, learning process, lecturer’s perspective

1 Introduction

University as the centre of knowledge transformation and also the place for the forging of future national leaders of the nation is always demanded to be dynamic. Differences in understanding and thinking are common. There are many study groups both scientific and religious. The student period is a period of independence in thinking, maturing and self-discovery. However, we cannot deny that the student period and the campus world are the times when they will build their frame of mind by reading various realities on campus. Various social phenomena either in the form of conflict or political momentum will automatically shape their mindset [1]. Therefore it needs a clear framework and orientation in carrying out various policies that must be supported by all campus components, one of which is the contribution and perception of lecturers in giving lessons in class, so that students are not easily exposed to various extreme ideologies that are not in line with the values of diversity that must be implemented in Indonesia as a country with a diverse population [2].

Recently, the world of higher education has been shocked by the results of research which states that some campuses in Indonesia and their students are exposed to radicalism. Setara Institut mentions that 10 well-known state universities are exposed to radicalism. The ten
universities include UI Jakarta, IPB, ITB, UGM Yogyakarta, UNY, Unibraw Malang, Unair, Unram, UIN Jakarta and UIN Bandung. The highest level occurred at IPB and ITB. Meanwhile, in UIN Jakarta and UIN Bandung. Another news that added to the impression of exposure to the campus world was conveyed, R Ryamizard Ryacudu, when he was still the Minister of Defense, who said 23.4% of Indonesian students were exposed to radicalism [3].

The religious moderation promoted by the Ministry of Religion today aims to think inclusively and restore our spirit of mutual cooperation as members of society. The values of religious moderation, as in the book published by the Ministry of Religion's Research and Development and Training Agency entitled Religious Moderation (2019), state that there are 4 main values that are at the core of the religious moderation movement, namely national commitment, harmony, anti-violence and wisdom towards local culture [4].

Several studies on religious moderation for the millennial generation were also conducted outside Jakarta. One of them is in Central Sulawesi (Palu). A Professor of IAIN Palu, Zainal Abidin, said that there are six principles that need to be developed in religious moderation education, namely humanistic, realistic, inclusive, fair, cooperative and tolerant attitudes. He also offers four steps to develop religious moderation for the millennial generation [5]. First, the benefits of the development of social media technology in spreading religious moderation; second, involving the millennial generation in positive activities in society; third, there needs to be adequate space for dialogue for the millennial generation both in educational institutions, at home and in society; fourth, optimizing the function of the family as a positive character building institution.

Implementing student thoughts that are in accordance with the expectations of the nation and in line with the concept of religious moderation initiated by the Ministry of Religion is not easy. It takes the efforts of the entire academic community to make this happen. Apart from the policies of the policy makers, that great hope is also on the shoulders of the teaching staff or lecturers [6]. Lecturers are professional educators and scientists with the main task of transforming, developing, and disseminating science, technology, and arts through education, research, and community service [7]. The opportunity for lecturers to construct students' minds is enormous, because every week they face students directly. Therefore, it is important for lecturers to understand the concept of religious moderation.

On this case, the authors are interested in conducting research on the Integration of the Value of Religious Moderation through the Learning Process in Islamic Higher Education which. The objective of the research is analysing the lecturer’s perspective toward the concept of religious moderation in the learning process and how they try to integrate it in the course.

2 Method

This research used qualitative approach which was intended to understand the phenomena experienced by research subjects. This research produces descriptive data in the form of words in spoken and written form from people and their observed behaviour. This research was descriptive qualitative in nature, namely analysing and describing objectively and accurately about the activities, events and circumstances of the research [8]. In order to be appropriate the researcher used research instruments to obtain information as expected and produce reliable data. As for the main instruments in this study are the researchers themselves and various media such as observation guidelines, interviews and documentation tools.
The methods that researchers used in data analysis techniques in this study are the interactive models of Miles and Huberman, namely data analysis is carried out when data collection is taking place, and after data collection in a certain period is by data reduction, namely summarizing and selecting the main things and focusing on the important things and looking for themes that are considered important and relevant. Then the display or data presentation is a form of short descriptions, charts, and the like which is a continuation after the data is reduced and through the presentation of the data, the data is organized, arranged in a relationship pattern, so that it will be easier to understand. The last is verification or conclusion is the conclusion that after the data is patterned, focused and arranged systematically in a narrative form, then through the induction method, the data is concluded. So that the meaning of the data can be found in the form of interpretations and arguments. Conclusions were also verified throughout the study. Conclusions drawn if there are deficiencies will be added.

3 Results and Discussion

3.1 Lecturer’s Perceptions toward the Concept of Religious Moderation

The results of the research to the lecturer of IAIM Sinjai, the researcher found several facts that the concept of religious moderation is not a new issue. Generally, they have got the concept of religious moderation from a book published by the ministry of religion and others literature. There are also those who understand the concept of religious moderation from symposium, journals, newspapers and social media. The lecturers basically agreed with the concept of religious moderation. They gave their view that the concept of religious moderation is a solution to the current state of the nation, which has many potential conflicts in the name of religion. Indonesian is a pluralistic nation in the form of a unitary state in which consist of many ethnic groups, races and religions.

Nurhasana, one of the IAIM Sinjai lecturers, gave the view that there are three things that become benchmarks for religious moderation. First, return to the main core of religious teachings, namely human values. Every religion, the core of its teachings, invites to respect and protect the dignity of humanity. "If there are religious teachings that contradict the core teachings of religion then this is excessive and extreme. Second, mutual agreement. Humans still have limitations. That is why God presents diversity, so that one another can perfect each other. Diversity is God's will. Diverse human beings need agreement. In Islamic teachings it is known as a very strong bond. The main essence of religious teachings is how people with various backgrounds can live together in an orderly manner. "The purpose of religion is presented in order to create public order in the midst of various shared lives. In addition, Amran stated that the concept of religious moderation is an important thing that must be understood together, so that everybody will not easily judge one another when they have different understandings in religion.

The pluralism of the Indonesia requires a mature concept to be applied so that there is no friction between religions. This is in line with the opinion of a lecturer who said that if understood properly, the concept of religious moderation is in accordance with the pluralistic conditions of Indonesian society [9]. The concept of religious moderation is good, because of the tolerance no organization is mutually marginalized.

Religious moderation is also interpreted as a concept of understanding religion in a balanced manner. Syamsir one of senior lecturer in IAIM said that the concept of religious
moderation is good because it teaches us to understand religious teachings in a fair and balanced manner so as to minimize the occurrence of practice behaviour that is not in accordance with religious teachings, in order to avoid extreme or excessive behaviour when implementing it. Apart from that, religious moderation is also considered capable for preventing extreme and radical understandings, this was conveyed by several lecturers. Ashar and Nurwahida conveyed their similar perception that the concept of religious moderation is necessary so that extreme and radical understanding of religion can decrease. Religious moderation is a concept in which our perspective on religion is moderate, namely understanding and practicing religious teachings without being extreme and not excessive. Religious moderation can be used as a forum as well as efforts to prevent various attitudes and practices from radical religious understandings, which have the potential to become disturbance to religious harmony.

In essence, the concept of religious moderation is considered very well in accordance with what is perceived by Hamka, saying that religious moderation is very good today, because it guides followers of religions, especially Islam, to address issues wisely, so that they always take the middle path on the phenomenon of political life in particular. In Indonesia. Even so, a concept certainly gets different views from all circles as conveyed by Laily Qadrianti, the concept of religious moderation in Indonesia has not been going well because there is still some discrimination in the name of religion. There are different perceptions of religious moderation, of course, this is based on the views and social realities that occur around them. However, this does not become an obstacle to realizing the concept of religious moderation in Indonesia.

3.2 Integration of the Concept of Religious Moderation in the Learning Process

Based on data collected from this research, some of the lecturers at IAIM Sinjai have applied various methods or ways to integrate the concept of religious moderation in the learning process. As stated by Muhammad Ikbal and Muhammad Azhar Nur:

"How to integrate the concept of religious moderation in the learning process by integrating empirical studies of Islam before, during, or after learning, for example examining verses, sirah nabawiyah which concerns how Islam views and treats people in social interaction"

"The way to integrate the concept of religious moderation in the learning process is to provide an example or explanation of the importance of religious moderation so that there is no misinterpretation of taking attitudes in religion because sometimes extreme and radical attitudes in religion deviate far from the teachings of religion itself. It can even lead to conflict in religion.

In general, the integration of religious moderation must be supported by all relevant stakeholders, especially in the context of a multicultural society. First, making educational institutions as the basis for religious moderation laboratories. Educational institutions are very appropriate to be laboratories for religious moderation [10]. As it is understood, the Indonesian nation is a nation that has various ethnicities and religions. Indonesia has its own unique characteristics, but it is full of challenges. As for its strategic steps; 1) Religious moderation must be the government's concern in making the narrative of the National Long-Term Development Plan (RPJPN); 2) Involving educational institutions: Pesantren, madrasah and schools and other non-formal institutions in strengthening human values, values of religious harmony, and religious moderation; 3) Developing religious literacy and interfaith education; 4) Schools must multiply the practice of different religious experiences so that they can establish cooperation between religious adherents. Second, the socio-religious moderation approach in religion and state [3].
Meanwhile, according to Meisaraswaty, Amran, Nurwahida, S.H.I., ME, and Hamka mention that the way to integrate religious moderation can be started in a simple instruction in the classroom, for example:

"Always linking learning materials related to religious moderation or at the end of learning provides an understanding of moderation."

"How to implement / integrate religious moderation in learning by instilling Islamic religious values in students."

"Integrating with the learning process is more on entrusting Islamic values which are rahmatan lilalamin limakani wa zamani, where Islam was born to provide peace on earth anywhere and anytime. So that educators are obliged to educate their students at least the historical values of the Prophet, who never overreacted to repay the injustices he experienced, instead responding with peace, emotional closeness to the perpetrator, even helping him. These values must always be reminded to students by the learning process."

In the book Moderation of Religion written by the Indonesian Ministry of Religion Balitbang Team, it is explained that moderation is not only taught by Islam, but also by other religions [11]. In principle, a fair and balanced attitude inherent in the principle of religious moderation can shape a person to have three main characters, namely wisdom, purity, and courage. In other words, being moderate in religion, always choosing the middle way, will be easier to realize if someone has an adequate breadth of religious knowledge so that they can act wisely, resist temptation so that they can be sincere without being burdened, and not selfish with their own interpretation of the truth so they dare to admit interpretation of the truth of others [12].

In an effort to create harmony in the life of the nation and religion, it requires religious moderation, which is a religious attitude that is being or is in the middle and not excessive. Does not claim to be the most correct person or group, does not use extreme theological legitimacy, does not use force let alone violence, and is neutral and does not have any affiliation with certain political interests or forces. This attitude of moderation needs to be socialized, educated, and cultivated by the role models of religious educators. A different matter was stated by Husnaini Jamil, Nurhasanah. They said that:

"The way to integrate the concept of religious moderation in the learning process is by using the discussion method without coercing an opinion on a matter can be an example of religious moderation."

"As an educational institution as well as an institution under the auspices of the Ministry of Religion, it must contribute in spreading the value of moderation to students through learning. Fiqh learning can be a forum for planting the value of Islamic moderation by presenting the concept of Problem Based Learning which requires students to open broad and open insights about the differences in Islamic law applied in society so that they are able to position themselves to be in the middle and act moderately in responding to existing differences. By cultivating moderate values, it is hoped that PTKIN can prepare Indonesian citizens who are Muslim while maintaining the values of wisdom, tolerance and non-radicalism."

Each lecturer has a very important role in promoting religious moderation in various ways according to the conditions and interests of the class. But the most important thing is how their understanding and perceptions are related to moderation, if the lecturers as the spearhead of planting religious moderation values within the scope of higher education have a comprehensive understanding, the value transformation process can be carried out at any time and in any momentum, including in the learning process in class. Another important thing is the synergy between all institutional components in implementing the value of religious moderation.
4 Conclusion

The understanding of the concept of religious moderation is not new in Islamic universities, since it was promoted by the Ministry of Religion as one of the priority programs, information and literature on this subject has been widely available, both in the form of religious moderation guidebooks, journals, and even on social media. Therefore, the lecturers at Islamic institute of Muhammadiyah Sinjai, basically already understand the concept of religious moderation and understand its essence. As with interviews with several lecturers, it can be concluded that Islamic higher education plays an important role in spreading the values of religious moderation and the parties who fight the most in this case are the lecturers who have the responsibility of transforming knowledge and value inside and outside the classroom. Religious subjects are not only about Islamic subjects but also general subjects, making lecturers integrate religious moderation in the learning process with different methods. This really depends on the conditions and interests of the students they teach. Therefore, a general framework is needed in integrating the value of religious moderation in the learning process. In addition, the synergy of the entire campus will also greatly support the process of cultivating the value of religious moderation.

References

Environmental Sense of Gen Z in Online Communities: Exploring the Roles of Sharing Knowledge and Social Movement on Instagram

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Abstract. Although various studies have addressed environmental concerns, few studies use the cohort perspective to address them, mainly Gen Z online communities. The future of the earth is reflected in the awareness, thoughts, and actions of young people towards the environment. This article analyzes interaction, online community formation and examines knowledge sharing and social movement on Instagram among Gen Z in various countries. The online survey results revealed that Gen Z Instagram users (n = 258) interacted online to discuss environmental sustainability, SDGs, and the 'save the earth' campaign as a form of knowledge sharing and social movement. The research sample was taken from social media-based environmental care communities on Instagram with an age range between 19 to 29 years in various countries. The analysis was conducted empirically with descriptive statistics that describe Gen Z's attitudes, actions, and engagement in social movements. Research also shows the environmental sense among Gen Z regarding SDGs issues such as good health and well-being, poverty reduction, environmental sustainability, biodiversity conservation, and plastic litter oceans. Gen Z shows a relatively deep concern for the earth's future because they associate it with themselves and humans' future. Most of Gen Z show deep concern about the negative implications of a development that exploits nature, unbalanced ecosystems, and the human ignorance of environmental sustainability. The implication of this research is to provide recommendations for future research in a multidisciplinary manner, examining the need for Gen Z leadership in building sustainability development from one generation to the next.

Keywords: Environmental sense, Gen Z, Instagram, Online community, Sharing knowledge, Social movement

1 Introduction

The attention of citizens and leaders of countries to realize sustainable development is getting more intense. This is reflected in the shared awareness within the United Nations (UN) to place sustainable development as a goal in all countries. Even though this noble goal has faced challenges and resistance from several developed countries, the desire to realize the SDGs is powerful and becomes a global message to every generation.

UN conducts knowledge sharing to citizens of the world through global media, especially the internet. Meanwhile, each country's government conducts campaigns to switch to a development strategy that pays attention to sustainability. Economic development policies run in synergy with environmental protection and maintenance. This message must be understood
and practiced in everyday life by every citizen. Development and being environmentally friendly are the norms in government administration in various countries by involving the community. Implementation through economic development must be in line with human development and environmental sustainability. Environmental issues and the future of planet earth are significant in that the United Nations places the SDGs as an obligation that must be implemented in every country.

The context of the future of the earth must be associated with the younger generation. The youngest cohort, Gen Z, can be said to determine the future of the earth. Each generation has different characteristics and behavior, including Gen Z with distinctive characters and is different from the more senior generations. The issue of global warming due to the exploration of natural resources can be said to result from the senior generation’s policies and actions. Therefore, the previous generation who exploits resources must pay attention to the future of the earth. Gen Z knowledge and experience are built through capacity building by senior generations who care about the environment. This research paper is important because it examines the sensitivity of Gen Z to eco-friendly issues. This article’s discussion seeks to find a link between Gen Z’s characteristics, values, current lifestyle, and future lifestyle. In the end, it is also a test for Gen Z environmental care and knowledge.

Environmental sense can be different in each generation because they have different experiences and situations with their environment. Many previous studies discuss sustainable development and environmental care. Likewise, they discuss the characteristics and roles of peer groups and their communities. However, there are scarce concerns relating to the role of a cohort to environmental sense. Therefore, this research article takes a position to fill in the gaps in Gen Z’s attention to environmental sense.

Gen Z's expression and activities are offline and online. With a character that has a stronger relationship with the digital and online world, Gen Z works through social media to form a community, especially on Instagram. The concept of convergence culture by Jenkins mentions the four aspects of convergence - economic, technological, social, and cultural. However, this research found one more aspect: digitally environmental, because concern for the environment must have a place as part of the youth’s expression and visual culture. Leaver et al. [21] identify Instagram as a visual social media culture, while this article also highlights the consequences of shared perceptions of young people in global networks or global youth communicating online [16].

The Gen Z lifestyle is formed from the experiences of young people with seniors from different cohorts. Opinions, lifestyles, and experiences are formed from the habits of individuals influenced by the social groups in which they live their daily lives, such as in a family, school, and peer groups. However, lifestyle is also influenced by trends promoted by the media, especially online media and people's interactions through social media.

Gen Z's character and daily habits are reflected in social media such as on Instagram, Facebook, YouTube, Line, and Whatsapp. Gen Z interaction and communication demonstrates the socio-demographic group's attention to issues of interest. Gen Z's interactions and conversations about an issue arise from experiences and formal education in schools, colleges, and workplaces. Environmental issues are one of Gen Z's concerns by forming communities among peer groups for environmental concerns.

An online community may not be significant if it does not contain messages to form collective understanding and action in various countries. Therefore, expression and social movement became the focus of discussion by examining Gen Z's attention to eco-friendly awareness, thoughts, and actions [37]. Meanwhile, other elements, such as online interaction, community formation, and knowledge sharing [26], are also a concern in this research paper.
The movement of young people worldwide requires a political and social movement environment on Instagram [6]. In this article, the shortcomings of the above theories and concepts that can still be completed are answered in this article by linking the interconnected factors.

Classrooms no longer dominate education and experience sharing in formal environmental education but with social media such as Instagram-Facebook, or Google-YouTube. Young people seek and learn information, knowledge, and experiences of other individuals and socially through Internet conversations. Social media is a channel for sharing knowledge and experience. From the community sprang up the initiators and pioneers to make more tremendous efforts for their peer groups. Instagram is used as a channel to promote environmental care. Social ideas and movements were started and built through Instagram. Gen Z makes Instagram a worldwide communication channel where local communities can be reached into a global network.

This research article discusses several variables that were not considered by various previous studies, such as the characteristics of Gen Z associated with their awareness of sustainable development in general, the structure of the values they have as part of a community group. The attention of this article is focused on Gen Z's current lifestyle, their knowledge and experience sharing activities, and their experience of making Instagram a channel to sharpen social movements related to eco-friendliness, and finally, a commitment to Gen Z future of environmental care.

Gen Z character is essential to be studied as a basis for discussing their concern for the environment. In various works of literature, identified characters are present at each cohort layer. According to Eder [12], characters can be analyzed as artifacts, fictional forms, symbols, and symptoms. Real or fictional life can reflect the character of a group of people, as in movies and social media, so the movement of the four aspects of the character eventually becomes focused on one or more of these aspects. However, a survey is necessary as social media activities such as Instagram are not sufficient to show the character of Gen Z related to environmental care. The IG community is assumed to be a part of everyday life so that their conversations and interactions reflect Gen Z's daily life and characteristics.

Koulopoulos and Keldsen [20] mention that Gen Z characters are related to technology; they break generations, hyper connecting, slingshotting, shifting from affluence to influence, adapting the worlds as their classroom, and lifehacking.

This research article reveals the importance of values structure as one factor that determines how Gen Z has a perspective on themselves, their environment, and their commitments in the future. Schwartz’s values theory has become a reference because it has been validated in many countries and is one of the most widely used models for describing value at the individual level. These concepts and theories distinguish between individualistic and collectivist values, which are united in several value dimensions. The two dimensions on the self-improvement vs self-transcendence axis organize values according to the degree to which they motivate people to follow their interests or surpass them for others’ sake.

Furthermore, the other two dimensions on the openness to change vs. conservatism axis organize values according to the degree to which they motivate people to go in uncertain directions vs. to keep them safe [34][35].

This research paper also highlights current lifestyle factors that want to explore Gen Z's thoughts, actions, and behavior in everyday life in real terms. Lifestyle includes the spirit of learning about their environment, the future, their food consumption habits, shopping, use of transportation, use of leisure time, and their network of friends. Networking of friends in various activities is sharing knowledge and experience among Gen Z. Thus, the knowledge sharing factor is also considered as one of the variables in this research paper. The environmental sense
of Gen Z can finally be a whole in Gen Z's thinking and actions related to all environmental issues today and in the future as their form of commitment.

Compared to several previous studies, this research article focuses more on examining the environmental sense, which is very important to analyze the expression, actions, and commitments of Gen Z today and in the future. Therefore, the main research question is what determinant factors influence Gen Z's thought and action commitments to their environmental sustainability concern. This research article aims to examine Gen Z community, its values structure, current lifestyle, knowledge sharing, social movement, and environmental care.

2 Literature Review

2.1 Environmental Communication

The perspective of the communication discipline is used as the basis for discussing limited environmental issues in the Gen Z cohort’s sociological-demographic community. It covers topics that focus on communication and human relations with the environment. The word environment reflects anthropocentric, or human-centered, cultural views of and relations with the living earth. Environmental communication focuses explicitly on the way people interact and communicate about the natural both during regular and human-caused environmental crises. The emphasis is on understanding and articulating environmental copresence, as explained by Milstein [27] who mentions the essence of environmental communication in mediating human-nature relations.

2.2 Cohort and Identity

The cohort concept was first put forward by Ryder [32], who analyzed social change based on age groups. According to him, this sociology-demographic approach provides opportunities for social transformation. Each birth group derives coherence and continuity from its constituents’ specific development and its persistent macro analytic features. Peer groups or demographic groups are formed from the environment when they grow, up from children, adolescents to young adults, including experiences, technology environment, and formal education. Generations experience a peer group socialization process, formed by unique or most memorable historical experiences when they grow up. According to Ryder [32], the young adult cohort stands out in a significant social event such as war, revolution, immigration, urbanization, and technological change because peer groups are used to achieve structural transformation. The cohort manifests the consequences in ways that are typical for social change and group identification.

Furthermore, identity is defined as an image of cultural, social, relational, and individual self-conception, and a combined identity which has implications for group membership, interpersonal, and individual self-reflection. Apart from that, identity is also considered as a colorful kaleidoscope with stable and dynamic characteristics. The communication studies view identity as both a challenge and a benefit to understanding how individuals define themselves and how others define them for various reasons. Interaction and communication occur with other people of different cultures as part of interpersonal interactions.

Cho, Bonn, and Han [7] were also interested in researching generation Z's sustainable volunteering by placing the variables of motivation, attitudes, and job performance related to
this concern. According to him, four Gen Z motives such as "values," "career," "learning." and "self-esteem" significantly influence attitudes. Moreover, the 'social' motive had no significant effect on their attitudes towards volunteerism. As a comparison, Gen Y or Millennials are cohorts one level above Gen Z, who also have concern for the environment. Johnson [19] analyzed Gen Y’s lifestyles and environmental concerns when choosing products related to the environment. However, millennials show a lack of support for future preventive measures [15].

Regarding identity and values, Scholz and Rennig [33] provide insight into the feelings and values of Gen Z, which are grouped into five values such as 1) less concerned for others, 2) more selfish than previous generations, 3) less tolerant, 4) less traditional, and 5) stability of relationships is less important. This dimension is considered in understanding Gen Z characters in association with environmentally friendly issues.

2.3 Gen Z and Social Movement

Gen Z and social movements are inseparable, as do other senior cohorts in different contexts. Gen Z has an environmental care social movement, especially since Greta Thunberg started protesting against climate policy in Sweden in August 2018. Demonstrations were forms of protest to the senior generation, which controls the policy throughout the world, causing public discourse global impact of Gen Z’s specific involvement in their opinions and actions on climate change. Global social movement news gained sympathy and followers and became trending on social media. Many young people around the world have accepted Thunberg’s social movement to care for the environment by joining in climate protests such as the Fridays For Future (FFF) movement on March 15, 2019, where more than 1.6 million people from 133 countries took climate action on streets in protest against the thoughts and policies of their senior generation [3].

The cohort characteristics, on the other hand, are reflected in their consumer behavior. In this context, there have been many previous studies that only discuss from the consumer side but rarely discuss it from social movements. Courtney's [9] study of Gen Z's environmental concerns and its effects was on their purchasing behavior. The findings of Dabija, Chebeň, and Lančarič [11] showed that Millennial and Generation X consumers in Romania and Slovakia believe that international clothing, footwear, and sportswear retailers are less concerned about environmentally responsible behavior and the need to sell environmentally friendly products. Older cohorts like the Baby Boomers are more sensitive to these aspects and choose retailers carefully according to their environment.

However, Gen Z considers personal values as in natural beauty products; personal values drive their intention to buy. Ahmad [2] explain that currently, Gen Z consumers are one of the most persuasive market segments because this age group has digital-savvy characteristics, and they are easily identified through their preferences, choices, views, tendencies, and unique behaviors.

2.4 Environmental Sense

Knowledge and experience regarding environmental concerns and the earth's future are sources of Gen Z's sensitivity when dealing with environmental damage and pollution issues. Modern life in urban and suburban areas and traditional life in rural areas both shape the experience and knowledge of dealing with nature and human health directly and indirectly.

Gen Z sense is then expressed in online communities and in their peer group chats and responses to events on the ground or through the media. Even opinions are embodied in a social
movement that is developed online on Instagram. Tadaki et al\[39\] put forward making sense of environmental values as a priority concept that provides a way to describe individual priorities for a wider population.

### 2.5 Gen Z in Online Communities

The concept of community is about people who live together geographically. However, another sharper meaning is a term of reference for a discrete set of people who share a culturally marked identity. Tracy explains the concept of community from the second definition above, which refers to groups that have been marginalized or stigmatized by the broader community in several ways. In comparison, an online community is a group of people who have the same interests or activities, opinions, and thoughts on issues such as attention to avoiding environmental damage, anti-pollution, and overall environmental care.

Gen Z can be identified with Instagram users because in its era, Instagram emerged and grew expansively, as Facebook was identified with its senior cohorts such as Millennials and Gen X. Various studies on the Instagram community discuss Gen Z's behavior as consumers and active content fillers. Jacobsen and Barnes \[17\] discuss the online life and behavior of Gen Z as consumers on social media, especially Instagram, that "made them do it."

### 2.6 Sharing Knowledge

Knowledge is always related to one's experience. In a formal sense, knowledge is always seen as one of the primary strategic resources that can produce a long-term sustainable competitive advantage \[13\]. So, knowledge is identical to a person, group, or organization’s ability to understand and act effectively on a problem. Knowledge can be obtained from one's own experience or the experience of others and after going through the institutionalization process, which becomes a resource for everyone to practice it and re-test it continuously.

Sharing knowledge is the transfer or exchange of experience and knowledge from one individual to another. Sharing itself is a process that involves interpersonal, group, organization, or a community \[1\]. Furthermore, Ma and Chan have defined knowledge sharing as "communication of knowledge from sources in such a way that it is learned and applied by the recipient". The experience becomes knowledge in the form of "providing information tasks and knowledge to help others and to collaborate with others to solve problems, develop new ideas, or implement policies and procedures." A suitable and inexpensive medium for sharing knowledge is social media, and for Gen Z the preferred social media is Instagram. With Instagram, Gen Z activities make it an effective channel of knowledge sharing to convey ideas, actions, promotions, invitations, campaigns, and even social movements.

### 2.7 Social Movement

The definition of social movement is related to social psychology which studies a group of people’s collective behavior. American Sociology describes it as a whole spectrum of behavioral types from panic to fashion changes, from crowd behavior to revolution. Much empirical research on the various ways people behave in groups has developed and supports such theories. The study of collective behavior is thus a mandatory point of reference; but, at the same time, they point to the limitations of an approach that finds the key to the explanation
of behavior in the beliefs of actors and which, above all, places phenomena at the same level whose structural significance varies greatly, for example in panic and revolution.

Repetitive actions by people who have the same characteristics or collective behavior is defined by Melluci as an ensemble of various types of conflict-based behavior in a social system. Collective action implies a struggle between two actors for the appropriation and orientation of social values and resources, each of which is characterized by some solidarity. This general definition denotes first-order collective action. To be complete, it requires a second condition, which also determines the second level of collective action.

Collective action also includes all types of behavior that violate the institutionalized norms of social roles, go beyond the political system’s rules, and attack the structure of class relations in society.

3 Method

3.1 Survey Research

Survey research is conducted directly and via a google form. This study population was young people aged 15 to 25 years in several universities and high schools through a direct online survey [38]. Because the population is spread across the Greater Jakarta metropolitan area, the population size is unknown. Therefore, the number of samples is taken purposively for the age of respondents. The number of samples in this study was 258 persons, with the distribution in urban and suburban areas. Sampling was purposive because the Gen Z age group (15-25 years) tends to have homogeneous characteristics [10]. Forty-seventh percent of respondents were female and 53 percent male, 21 percent aged 15-17 years, 27 percent aged 18-20 years, 33 percent aged 21-23 years, and 19 percent aged 24-26 years.

3.2 Measures

Several variables in this study adopt measurement elements from the character inventory Luby et al [24] to understand the character of Gen Z and relate it to environmental issues in their experiences, knowledge, and actions. Specifically, several elements concerning the current values of Gen Z, Maloni [25] were also adopted to understand their attitude and behavior as part of a lifestyle.

Furthermore, constructs for understanding interaction activities to exchange ideas, discussion, and efforts to build shared perceptions are adopted from knowledge sharing [31]. Likewise, the dynamics that occur with the same opinion and determination to think about the future of the earth are adopted and become the social movement elements [42] that allow the community movement to care about the environment. Elements of the environmental care dimension [40] were eventually adopted to determine Gen Z's commitment to the Future Eco-Friendly [41]. All dimensions were constructed for a coherent and well-organized questionnaire and were formulated with useful sentences that were easy for the participants to understand.

3.3 Path Analysis

Path Analysis is a statistical technique that allows users to investigate patterns of effect within a system of variables [23]. It is one of the general linear models that examine the impact of a set of predictor variables on multiple dependent variables. Path analysis is similar to
multiple regression in that the effect of multiple predictors on a criterion variable can be assessed. However, it differs from multiple regression in that two or more criterion variables can be examined at the same time.

Figure 1 illustrates the factors that we test in a course or path by examining each variable. We started with the Gen Z IG Community, which reflects their familiar character whether there is any impact on Values and Current Lifestyle. Furthermore, the two factors were tested whether they impacted Sharing Knowledge on Instagram, which in the end they had the spirit to carry out Social Movements in the environmental sector, which showed Gen Z's concern about the earth’s future or Environmental Care. The impact of a set of predictor variables (IG habit and Community activities, Values, Lifestyle) on multiple dependent variables (includes Sharing Knowledge, Social Movement, and Environmental Care). Figure 1 show the Path Analysis of Research Framework.

![Fig. 1. Path Analysis of Research Framework](image)

4 Result and Discussion

4.1 Sustainable Development

Most of the respondents (71 percent) understand sustainable development in nature utilization for the human benefit economic growth. Gen Z also understands the details of various concepts or terms related to sustainable development as a demand trend in the human lifestyle, and it shows that the environmental sense among Gen Z is relatively high. Gen Z has also understood several derived concepts related to SDG issues such as good health and well-being, poverty reduction, environmental sustainability, biodiversity conservation, and plastic litter in the oceans.

This research generally found several things in the various factors analyzed, such as "Save the Earth", a more popular concept in their interactions and expressions of sustainable development that is understood by the younger generation on Instagram. Gen Z is environmentally friendly and has a relatively deep concern for the future of the earth because they associate it with themselves and the humanity’s future. Campaigns on social media are a place to exchange information and knowledge with fellow Gen Z and their senior cohorts.

The results of the IG Community variable show that among several types of social media that are identified for them, IG is Gen Z's preference in interaction and expression.
Gen Z has values built from its seniors, the technology environment, and embedded interactivity with peer groups. Values dimension based on cohort concern becomes the value structure that influences Gen Z to communicate knowledge sharing among its peers and even across generations. Gen Z's daily lives reflect the path for a future goal. Likewise, Current Lifestyle also influences Gen Z to share experience and knowledge with fellow Gen Z and their communities. The lifestyle of young people has changed compared to their seniors because they care more about the environment. They obtain their knowledge and lifestyle from the retailing industry, campaigns on Instagram, and school materials. Environmentally friendly is one of the Gen Z lifestyle identities because most of Gen Z show deep concern about the negative implications of a development that exploits nature, unbalanced ecosystems, and the human ignorance of environmental sustainability.

4.2 IG Community

Many communities appear on social media such as Instagram, including Gen Z. The community makes Instagram the base or the main “home” where they interact with their peer group. IG is Gen Z’s preferred social media for daily activities. Often, their offline and online activities are not differentiated because everything is shared on live streaming or delayed content on YouTube and Facebook. YouTube content and live streaming are options and are always shared through IG and discussed by the community.

The community builds cognition, affection, action, and behavior on an issue that develops in society or follows conversation trends in the world. The eco-friendly issue and its shared experiences have been discussed and are continuously maintained. Environmental care continues to be discussed and practiced by peer groups because of Gen Z cohesiveness within the community.

4.3 Values Structure

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>IGC</th>
<th>VST</th>
<th>CLF</th>
<th>SKL</th>
<th>SMV</th>
<th>EVC</th>
</tr>
</thead>
<tbody>
<tr>
<td>IGC</td>
<td>5.9</td>
<td>2.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VST</td>
<td>13.1</td>
<td>6.9</td>
<td>.10*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CLF</td>
<td>61.2</td>
<td>18.7</td>
<td>.17**</td>
<td>.76***</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SKL</td>
<td>53.2</td>
<td>18.9</td>
<td>.22**</td>
<td>.52***</td>
<td>.41***</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>SMV</td>
<td>37.9</td>
<td>13.2</td>
<td>.52***</td>
<td>.47***</td>
<td>.38***</td>
<td>.51***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EVC</td>
<td>81.7</td>
<td>11.9</td>
<td>.59***</td>
<td>.87***</td>
<td>.78***</td>
<td>.67***</td>
<td>.78***</td>
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</tr>
</tbody>
</table>

Note: IGC = Gen Z IG habits; VST = Values Structure; CLF = Current Lifestyle; SKL = Sharing Knowledge; SMV = Social Movement; EVC = Environmental Care

Each generation’s value structure is formed from experiences with families, peer groups, schools, communities, and the media. Gen Z derives knowledge from the same sources as its senior generation. Habits and discipline taught by families and schools, in particular, make Gen Z has a consistent attitude to always care about environmental issues. Some of the values structure’s elementary habits are awareness of reducing pollution and preserving nature, giving the message that people care about reducing waste, and desire to have fun in beautiful and sustainable nature. These statements significantly became the structure of the values for Gen Z's
thoughts, actions, and behavior. In table 1 shows that several factors or variables under study are examined for their correlation with one another as shown in the previous Figure 1.

4.4 Discussion

These results are compared with various previous studies, and the findings are discussed. In several previous studies, there was a mutual confirming finding. Among other things, the results of this research are in line with the findings of Niaura [28] who used the theory of planned behavior to investigate the determinants of environmental behavior among youth. In addition, the findings of this research also support previous research by Blythe & Harré [5] which focuses on inspiring youth sustainability leadership, in which Gen Z acts as the leader.

This study’s findings also reinforce the interrelated concept of environmental concerns such as the factors of lifestyles, mobility-related attitudes, and young adults’ adoption of technology as researched by Circella et al. [8] which explored the impact of various factors, including personal attitudes and preferences (e.g., regarding travel, technology adoption, adoption of alternative fuel vehicles, social, economic, and environmental issues), lifestyle, urban forms, individual living arrangements, peer influence, and online social networks.

The Gen Z lifestyle that considers consuming an environmentally friendly product has similarities with Millennials. The differences are in that Gen Z is more accustomed to being concerned due to the increasing trends driven by local government policies such as on the retail industry. This study is in line with the findings of Öz et al. [30], discussing consumer attitudes toward genetically modified food in the United States. Likewise, the findings of Liobikienė et al. [22] previously suggested that policymakers should use different tools that promote eco-friendly purchasing behavior among young people.

Mutual confirming finding between the results of this study and previous research is more in environmentally friendly product consumption practices. However, current lifestyle practices are also seen as a form of Gen Z’s commitment to eco-friendliness. Song et al. [36] found a relatively similar finding by exploring the theoretical relationship between product attributes and environmental awareness in the context of green marketing to Gen Z consumers in China. The findings of this research are also in line with Yu et al. [43] in Taiwan, who examined the pro-environmental behavioral Gen Z intention towards green products in the fight against climate change. Likewise, Genoveva and Syahrivar [14], despite researching Millennials, found a green lifestyle among Indonesian millennials in a comparative study between Asia and Europe.

Although there are differences in the findings of this research regarding social movement for environmental concerns, the recommendation regarding the need for volunteer groups to drive environmental care activities is a mutually confirming finding. Binder and Blankenberg [4] show that environmental awareness also leads to an increased tendency to volunteer and that volunteering is positively associated with well-being, but only for those who care deeply about the environment. The findings of this study are consistent with the Jerome et al. [18] recommendations who stated the importance of re-defining the characteristics of environmental volunteering. Because one way to involve the community with green infrastructure is as an environmental volunteer, this research also confirms Ojedokun's findings [29] that personality traits of openness and agreeableness were more related with eco-initiatives and eco-helping.

The results of this study get a different place compared to various previous studies. The new finding in this research provides insight into the importance of capacity building in young cohorts for environmental care. This research enriches previous findings by exploring aspects of eco-psychology and eco-sociology to formulate a youth commitment, especially Gen Z, to a future development that pays attention to preserving resources and green earth.
5 Conclusion

Based on the findings above, we conclude several essential points; first, the Environmental Sense of Gen Z is reflected in their current lifestyle, values, and character as their identity. Second, Instagram is Gen Z's preference to reflect their thoughts and actions in paying attention to the environment by forming communities. Third, there is a significant influence between Values and Lifestyle on Sharing knowledge on Instagram social media, and fourth, there is a significant influence between Values and Lifestyle on Knowledge Sharing, Eco-Friendly Social Movement, and Environmental Care among Gen Z through Instagram.

The implication of this research is to provide recommendations for future research in a multidisciplinary manner, examining the need for Gen Z leadership in building sustainability development from one generation to the next.

References


Health Communication Issues of the People in Street Situation during Pandemic Covid-19

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Abstract. People living on the streets is a phenomenon that occurs in a number of cities throughout Indonesia. Yogyakarta, like other cities, faces the same issue. People on the streets face an even greater challenge during pandemics. This raises additional concerns, including the threat of homelessness, poverty, and insufficient health care access. The purpose of this study is to examine the health communication issues confronting people on the street during the Covid-19 pandemic. This study employs a qualitative approach with a phenomenological orientation. Age growth has an effect on and affects the welfare of people living on the street. Individuals living on the street face new challenges such as health concerns, family conflicts, sexually transmitted infections (STIs), and unplanned pregnancy (KTD). The situation in Covid-19 has resulted in street people having difficulty accessing health care. The actors involved must develop interpersonal trust with the people they encounter on the street. To gain the trust of strangers on the street, informal communication can be used. Particularly on issues concerning health communication.

Keywords: People in the street situation, pandemic covid-19, health communication issues

1 Introduction

Street children are a current occurrence in a number of cities throughout Indonesia. Numerous factors contribute to children's preference for street life. As with other cities, Yogyakarta faces the same issue of street children. One of the most difficult aspects of achieving children's rights, particularly on the streets, is that the majority of them still lack a distinct identity [1]. Children living on the streets are not limited to nomads or the homeless. However, street children are also included in disadvantaged communities located in the suburbs of urban villages.

The streets are synonymous with deplorable conditions and hazardous areas. Children on the street are classified as being in a bad situation [2]. Numerous factors contribute to children's involvement in street situations, including an unfavorable home climate, poverty, the allure of freedom, drugs, and uncontrollable space for adults [3]. This is also what motivates some Yogyakarta children to choose the street as their alternative living space. Children's problems in street situations remain the same, namely education, economics, and health. However, funding for children living on the streets is primarily directed toward education and economic development. The health component is frequently overlooked by the stakeholders.

The issue becomes more complicated because street children are socially connected to a variety of different elements, including their parents, the Social Service, the Police, non-governmental organizations (NGOs), the Open Houses, the Chief Coordinator, and peers who
are not only children but also adults. This ambiguity clouds the policy regarding street children. [4]. The complexity of poverty necessitates that individual take an inventive step to assist the government in alleviating poverty. Social entrepreneurship is one strategy for addressing this issue [5].

Children as a young generation, potential and future generations with unique ambitions and characteristics must be protected from all forms of inhumane treatment that result in human rights violations, according to the act 35/2014. Children's rights are an integral part of the human rights that pertain to the State's position, and as such, each nation should protect, fulfill, and respect children's rights [6].

According to the National Socio-Economic Survey (SUSENAS), there are approximately 4.8 million street children in the United States. Two years later, this percentage increased to 8.4 percent, bringing the total number of street children to 9.1 million. The Yogyakarta Special Area has a total of 2076 street children (BPSRI 2012). This number continues to rise year after year. In the Yogyakarta Special Region (DIY), a critical issue for street children is a lack of personal and social skills [4].

The Yogyakarta City Government has announced a series of measures aimed at reducing children's height in street situations. Apart from conducting raids and social rehabilitation, the Government of the Yogyakarta Special Region issued Regional Regulation No. 1 of 2014 on the Treatment of Homeless and Beggars for Control. However, some parties believe that these laws fall short of resolving and protecting children in street situations. The Yogyakarta City Government's strategy of excluding children from roads through special education programs that combine informal and non-formal education is also not ideal [7].

The majority of children living on the streets rely on their daily earnings. Economic concerns are one of the most impacted. The majority of street children rely on their daily earnings. Street children face an even greater threat in the event of a pandemic. This raises additional concerns, such as the threat of homelessness, hunger, and a lack of means of subsistence.

According to the findings of a survey conducted by the Yogyakarta Legal Aid Institute (LBH), the majority of street children have shifted from begging or selling crackers to street singers as a result of the homework (WFH) policy and social distancing [8]. Additionally, children living on the streets are becoming increasingly depressed as a result of Yogyakarta's implementation of curfews during the Covid-19 pandemic. This situation has gotten worse as prices for basic commodities such as sugar, eggs, cooking oil, and rice have increased. Children living on the streets have few avenues for requesting assistance in resolving their problems during the Covid-19 Pandemic. The purpose of this study is to examine the health communication challenges encountered by people on the street during the Covid-19 Pandemic.

2 Method

This research uses a qualitative descriptive method with a phenomenological approach. The phenomenological approach in the study of communication means enabling anything to be as authentic as possible without placing categories of researchers on the subject under investigation. The topics studied were the population of street people who were accompanied by the Harapan Fian Association. The Harapan Fian Association (HF) is an organization concerned with promoting human rights in street situations. This study's data collection
approach was applied in two ways by in-depth interviewing and observation techniques. An interpretative phenomenological analysis is the data analysis approach used (IPA).

There are three steps in the qualitative research process. The first stage is orientation; at this stage, the researcher will find the phenomenon studied. Second, the reduction stage is when the researcher chooses exciting and essential data to categorize. The third stage is the selection stage; at this stage, the data has been classified, then analyzed, and presented in more detail. The IPA stages consist of Reading and Reading, Initial Notes, Looking for Connections Across Emergent Theme, Moving Next Cases, and Searching for Patterns Across Cases.

3 Results and Discussions

The study of health communication has shifted away from an objective model toward a subjective one. This condition is exacerbated by the complexities of people's lives, as they become increasingly aware that understanding the opposing viewpoint on a subject is critical for effective, empathic communication [9]. Subjectively, the study aims to see if people's impressions of street conditions during the Covid-19 Pandemic have operated. Data on people's health contact problems in street situations during the Covid-19 Pandemic have been extracted from this personal experience. Based on the supported data from Harapan Fian, the issues faced by people in street situations before the Covid-19 Pandemic are as follows Figure 1.

![Fig. 1. Case Handled by Harapan Fian in 2018-2019 (Source: Perkumpulan Harapan Fian)](image)

The problem of health contact for people in street situations is affected by several factors, including age, the social atmosphere, and the family. During the Covid-19 Pandemic, people in street circumstances were among the most vulnerable and at risk. The following a Figure 1, illustrating the health contact problems faced by people in street circumstances during the Covid-19 Pandemic as follow Figure 2.
Age growth defines and affects health problems for people living in street conditions. People in the street face several new health issues when they enter the adolescent phase. Among the reproductive health issues are family conflict and sexually transmitted infections (STIs) in unplanned pregnancy (KTD). During a pandemic, women and children are the most vulnerable segments of the street population.

The Covid-19 pandemic resulted in an increase in the unplanned birth rate in the community of people in street situations. This study found two adolescent girls who experienced an unplanned pregnancy (KTD) and a baby's birth from three women who experienced KTD. Besides, there were also two cases of malnourished babies and ten babies who were susceptible to disease because they had not received immunization services. Women in street situations also have difficulty accessing contraceptive services due to limited access to health services such as Puskesmas. The Covid-19 pandemic makes it difficult for children and women to get proper and comprehensive health services in street situations. Many reproductive health services are not running because health care currently focuses on dealing with the pandemic.

People in street situations who are female have a more nuanced burden on reproductive health issues. Maternal and Child Health Problems (KIA) are also crucial issues facing people in street circumstances. During the Covid-19 Pandemic, they were forced to monitor the healthy development of their children independently. They will need to track the nutritional status of their children to prevent stunting ability. Children living on the streets have few opportunities to seek assistance in resolving their health problems. The study also found that there were not enough health centers and facilities to offer health care to people living in street circumstances. This is due to the small number of health units that can promote and provide primary health care for disadvantaged groups, such as those on the street.

Government protection agencies must approach street children's protection from a street child's perspective, enabling them to leave the streets [10]. But, Assistance to street children focuses more on education and economic development [11]. As a result of the effects of the Covid-19 Pandemic, people's activities in street situations have been restricted, along with the introduction of the Large-Scale Social Restrictions (PSBB) program. This affects their daily economic activities. As a result, there are few people in the street situation. The Covid-19

Fig. 2. Health Communication Issues of the People in Street Situation During Pandemic Covid-19
pandemic has exacerbated people's condition in street circumstances due to the difficulties of accessing health care facilities. People in street circumstances have trouble accessing free health facilities due to a lack of identification. So regular check-ups are challenging to do where this disease can cause different kinds of other health issues. The current assistance focuses only on children in street conditions that are under the age of 17. Children in adolescent situations have received little additional support from relevant stakeholders. In reality, adolescents who live on the streets face more complicated health issues.

4 Conclusion

The health aspects of people in street situations need to be of grave concern to the relevant stakeholders responsible for coping with this problem. The Covid-19 pandemic has exacerbated people's condition in street circumstances due to the difficulties of accessing health care facilities. People living in street conditions, as a disadvantaged community, need assistance in obtaining appropriate health services. Not only did it apply to the health issues discussed earlier, but it also pointed to how to avoid such health conditions from occurring. Individuals living on the street do not have many options for coping with the person they are confronted with—particularly when it comes to issues of wellbeing. Therefore, qualified health professionals who explicitly provide health services to community people in street situations, particularly during the Covid-19 Pandemic, are required.

Acknowledgments

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References


How Do People Manage of Their Unused Medicines at Home?

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Abstract. This study aims to determine how the people in Magelang manage drugs especially stored and disposed drugs. This research is an observational study using simple random sampling method. Questionnaires containing drug disposal sites, types of drugs stored, beliefs about where to dispose of drugs and who should be responsible for drug waste were distributed using google form and directly visited people in the Magelang. Respondents who took part in this study amounted to 202 people. The results obtained in this study were that most people kept tablets / capsules (63.87%) as drug supplies (66.80%) with indications for colds and coughs (28.81%). The public believes (54%) that unused drugs can be disposed of in the trash (61.80%). The conclusion of this study is that many people (65%) have never received socialization about how to properly dispose of drugs so that many people dispose of drugs such as disposing of household waste in general, and people agree (43.1%) if the medicine / container those that are not used are returned to the health facility. By disposing of drug waste in health facilities will prevent counterfeit drugs, illegal drugs and environmental damage.

Keywords: Dispose of Drugs, drug storage, and belief in throwing medicine

1 Introduction

Indonesia is a developing country with a population of 267 million people [1]. The results of the 2013 Basic Health Research stated that as many as 35.2% of households in Indonesia performed self-medication as first aid in caring for themselves and their immediate environment [2]. The purpose of self-medication will be achieved by supporting factors, including how to store the drugs that have been purchased and how to dispose of drugs that are no longer used and how people get them. The results of the study stated that 65.01% of Indonesians performed self-medication if they were sick, this could be an indication that every house has a drug store so that each individual must know how to manage drugs properly and correctly [3]. One example of the negative impact that can occur if a drug is disposed of carelessly is environmental pollution by drugs [4]. Disposing of medical or medicinal waste is not the same as disposing of household waste. The form of the drug to be disposed of must be different from the original form research conducted in Sleman Yogyakarta found that 56.97% of drug waste was disposed of in the form of tablets or solids and 37.88% in the form of liquid medicine packaging [5]. In Serang Public Health Center, 87.5% had poor medical waste disposal, due to the absence of definite guidelines for drug processing and limited funds to exterminate third parties [6]. Apart from polluting the environment, the negative impact that can occur is the opportunity for drug abuse to occur. This can happen because they do not get the medicine through official health facilities such as pharmacies, hospitals or clinics. The drugs that are widely abused are narcotics,
psychotropic substances and other addictive substances (NAPZA) because certain individuals feel the side effects of the side effects. Improper disposal of drugs can result in drug reconditioning, because certain individuals experience these side effects. Improper disposal of drugs can lead to drug reconditioning, meaning that drugs that are no longer used/damaged/expired by improving their condition can be useful again. Drug waste that is not properly disposed of will be reprocessed (reconditioned) by irresponsible people so that the goal of treatment will not be achieved, it will cause undesirable things if consumed. Based on the description above, the researcher wants to know how people store and dispose of unused/damaged/expired drugs in order to minimize the negative impacts that will occur related to drug disposal and can support government programs, especially in the health sector (GERMAS).

2 Method

This research is a qualitative descriptive study conducted observational using a simple random sampling method. The questionnaire used is the adoption questionnaire [7], which contains variables of the respondent's personal data, drug dumps, forms and indications of stored drugs, beliefs about drug disposal sites and who should be responsible for drug waste. Primary data obtained by distributing questionnaires via google form and visiting people in the City and District of Magelang directly. Respondent data obtained as many as 202 people.

3 Results and Discussion

Most respondents in this study were women aged 23-27 years who were married and worked as housewives. According to data [8] in Magelang, Central Java, the group most economically inactive are those who work as housewives. This research is right on target with the dominant target being housewives. Housewives work 24 hours a day at home to take care of the house and their families, one of which is being the first person to manage medicines if someone is sick at home. Table 1 shows the data on the characteristics of the respondents.

Table 1. The characteristics of the respondents.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>74%</td>
</tr>
<tr>
<td>Married</td>
<td>57.43%</td>
</tr>
<tr>
<td>Age 23-27 Year old</td>
<td>32.67%</td>
</tr>
<tr>
<td>Housewives Job</td>
<td>41.09%</td>
</tr>
<tr>
<td>Income per Month &lt; Rp. 2.000.000,-</td>
<td>58.42%</td>
</tr>
<tr>
<td>The average cost of buying drugs &lt; Rp100.000</td>
<td>84.16%</td>
</tr>
</tbody>
</table>

The results showed that people in Magelang kept more than one type of medicine at home and most of them were in the form of tablets/capsules (63.87%). The tablet/capsule form is more widely used by the public. This is because it is practical for consumption, available in various dosage strengths, can be stored for a long time and is easy to swallow [9]. The second-largest dose of medicine stored in the household was syrup/liquid (20.17%). Both of them are oral medications that are widely consumed by the public, both adults and children because liquid
preparations are more likely for children because they are easy for children to consume and taste sweet. In Table 2, there are various forms of medicinal dosage stored at home:

**Table 2. The stored dosage form of the medicine**

<table>
<thead>
<tr>
<th>No</th>
<th>Dosage Form</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tablet / Capsule</td>
<td>152</td>
<td>63.87</td>
</tr>
<tr>
<td>2</td>
<td>Liquid/Syrup</td>
<td>48</td>
<td>20.17</td>
</tr>
<tr>
<td>3</td>
<td>Cream/Zalf</td>
<td>33</td>
<td>13.87</td>
</tr>
<tr>
<td>4</td>
<td>Powder</td>
<td>2</td>
<td>8.4</td>
</tr>
<tr>
<td>5</td>
<td>Others</td>
<td>3</td>
<td>1.26</td>
</tr>
</tbody>
</table>

This dosage form is directly proportional to the indication of the medicine most kept by household, are cough and flu (28.81%). Research conducted in Bantul stated that flu and cough are among the top three diseases that people do themselves without a doctor's prescription [10]. This could be due to previous experience taking medication, or getting recommendations from pharmacists and commercials on television. Other indications for drugs that people keep at home are analgesics and antipyretics. This class of drugs ranks first for non-prescription drugs purchased by people in Bantul, Yogyakarta [10]. In contrast to the results of this study, in Magelang, this group ranks second after flu and cough. Different climatic and environmental conditions, disease trends and treatment among individuals also vary. The Table 3 presents data on drug storage based on the indication.

**Table 3. Indication for Medicines Stored at home**

<table>
<thead>
<tr>
<th>No</th>
<th>Indication</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Flu and Cough</td>
<td>104</td>
<td>28.81</td>
</tr>
<tr>
<td>2</td>
<td>Headache</td>
<td>85</td>
<td>23.55</td>
</tr>
<tr>
<td>3</td>
<td>Fever</td>
<td>60</td>
<td>16.62</td>
</tr>
<tr>
<td>4</td>
<td>others</td>
<td>29</td>
<td>8.03</td>
</tr>
<tr>
<td>5</td>
<td>Pain</td>
<td>26</td>
<td>7.20</td>
</tr>
<tr>
<td>6</td>
<td>Eye/nose/ear pain</td>
<td>14</td>
<td>3.88</td>
</tr>
<tr>
<td>7</td>
<td>Hypertension</td>
<td>7</td>
<td>1.94</td>
</tr>
<tr>
<td>8</td>
<td>Diabetes</td>
<td>2</td>
<td>0.55</td>
</tr>
</tbody>
</table>

Most of the people keep their medicines so that they can using again on another day (61%) and as supplies (66.80%). Drug storage requires special attention. Because if not true it can damage and decrease its effectiveness so that the expected effect is not achieved. Other than that, it can cause poisoning when consumed, so drug storage needs to pay attention to the instructions listed on the packaging [11]. Most of the reasons for storing medicines at home can be due to changes in the diagnosis of the disease so that the medicine has also changed, and then there are side effects of the drug, changes in dosage, expired drugs, and patient non-compliance in taking them. Medicine [12]. Storage must adjust to the characteristics of each drug so that the quality remains good at the time of consumption. Improper drug storage can decrease the stability of the drug which has an impact on the effectiveness of the drug in providing a therapeutic effect in each person [13]. Research conducted in China states that when people store medicine only pay attention to the expiration date, they do not pay attention to other things, for example about the stability and temperature-humidity of the drug [14]. This is also, in line with what is happening in our immediate community. When buying medicine, they look at the
name of the medicine, and then ask for the price and the expiration date. When the expiration date still long, they can store the drug freely, without considering other factors. The negligible length of time and storage temperature may lead to different estimates of the toxicity impact of the drug [15]. The location for storing medicines at home is also important to note. As many as 55.27% of people in Magelang store their medicines on the dining table. This can occur because of the ease in reaching the drug at the time of consumption it was easier for them to remember when they took the medicine before or after eating, or at the same time as eating, so they put the medicine on the table.

Ease of access to drugs is in accordance with the basic guidelines for drug storage; however, the negative impact if the medicine is on the dining table is easy for children to reach. It will be fatal if the placed drug has a narrow therapeutic index so that it can cause a sentinel event otherwise consume accordingly to the purpose and dose. Medicines to have at home be stored in one container, for example, a medicine box (P3K Box) so that it is easy to find when needed. Medicine city should be stored in a dry place away from light, heat and humidity. The kitchen or bathroom room is not suitable for storing medicine because the room conditions are usually hot and humid so that it quickly destroys the drug [16]. In the community service activities carried out in Cilacap, there was an increase in people's attitudes and knowledge of about 10% in terms of drug management, one of which is the proper and correct storage of medicines in the household. This situation occurs after training and mentoring by pharmacists [17]. Table 4 below shows the location for storing medicines at home.

### Table 4. Location of Storing Medicine At home

<table>
<thead>
<tr>
<th>No</th>
<th>Location</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>in the closet</td>
<td>113</td>
<td>36.10</td>
</tr>
<tr>
<td>2</td>
<td>in the refrigerator</td>
<td>19</td>
<td>6.07</td>
</tr>
<tr>
<td>3</td>
<td>on the dining table</td>
<td>173</td>
<td>55.27</td>
</tr>
<tr>
<td>4</td>
<td>in the drawer</td>
<td>3</td>
<td>0.96</td>
</tr>
<tr>
<td>5</td>
<td>in the bedroom</td>
<td>1</td>
<td>0.32</td>
</tr>
<tr>
<td>6</td>
<td>in the medicine box</td>
<td>1</td>
<td>0.32</td>
</tr>
<tr>
<td>7</td>
<td>hung on the wall</td>
<td>3</td>
<td>0.96</td>
</tr>
</tbody>
</table>

Most of the respondents disposed of the medicine in the form of tablets (61.80%), then ointment/cream (60.96%), powder (57.62%) and suppositories (52.40) by throwing them directly into the trash. without giving treatment first. This is because replacing damaged or expired drugs from their original form can reduce the quality, safety and efficacy of the drug. In addition, because pharmaceutical preparations or drugs are included in as hazardous and toxic waste, they are dangerous if disposed of carelessly. The long-term effects of this can be devastating the environment, which affects humans, plants and animals, as well as open opportunities individuals to abuse medicinal waste. For syrup processing, people destroy it by first throwing the contents into the sink (33.84%). It is also inappropriate to do this because drugs are chemicals that can harm living things.

According to the FDA, it is not permissible to flush medication down the toilet or sink unless specifically instructed [18]. A study conducted in China stated that only about 12.3% of people thought that eradication of drugs in the country required the most attention and 14.7% of the special culling process did not attract the attention of the local population [14]. Since 2010, the United States has implemented dropboxes as an official collection point for medicines that are not used in health facilities such as hospitals, pharmacies and clinics, thereby ensuring the safety of medicines that are no longer used in the community [19]. Dispose of the medicine
and its packaging in the trash as long as they are not disposed of in their original form, so mixing the drug with soil is one way to do it before throwing it away. This prevents drug abuse or drug repackaging and minimizes environmental damage. This is also in line with the program that has been implemented by the National Food and Drug Agency (BPOM) since 2019, namely the Eradication of Drugs and Drug Abuse (POIPO) in order to create Superior HR for Advanced Indonesia [20].

The data on how to destroy drugs is directly proportional to the public belief that throwing unused or expired drugs into the trash (54%) and burning it with other waste (43.1%) is the right thing. Therefore, there is a need for intensive information and the Government through the Health Office and from related associations (Indonesian Pharmacist Association) can provide training that. Research that has been conducted on pharmacy students and nurses in Saudi Arabia show that 91.9% and 81.8% accept that the improper disposal of unused and expired drugs can affect the environment and health [21]. Figure 1 shows how to dispose of medicinal waste in households.

![Figure 1. How to dispose of drug waste in the household.](image)

The results of this study, the community stated that they had never (65%) received any training or information regarding the storage and disposal of drugs from anyone. They should be able to get information and training from the relevant government because 38.1% of respondents agree that the government is responsible. As much as 21.3% said that important events like this are the responsibility of all parties because if it were only the responsibility of the government, the scope would not be broad due to limited human resources in the government. The community agreed (43.1) and strongly agreed (24.3%) if packages or medicines that were not used/damaged/expired at home could be thrown away or returned to the nearest health facility. If drug waste management runs in an organized manner at the nearest health facility, then it can maintain the safety of the environment and living things around it and minimizes the reprocessing of drugs or fake or illegal drugs. Figure 2 shows about belief in taking out the unused medicine in household.
The government, through the National Food and Drug Supervisory Agency (BPOM), has announced the proper disposal of drug waste. Starting October 11, 2019, people can destroy or dispose of unused/expired/damaged drugs at the nearest pharmacy, because BPOM has distributed 1000 boxes of drug waste in 15 cities in Indonesia with the aim of minimizing the occurrence of drug and illegal drug abuse. In Indonesia. However, not all cities have received this program, for example in Magelang, so the health office as an extension of the government can provide socialization and training in advance in the regions.

4 Conclusion

The conclusion of this study is that as many as 54% of people in Magelang believe that it is the right thing to throw unused or expired drugs in the trash (65%) like other household waste. This can happen because many people (65%) have never been able to socialize about the correct way to dispose of drugs. this can result in the community not knowing the risks or impacts that will occur in the future. The community hopes that the government or its representatives (BPOM) can reach small areas so that they can participate in the “how to properly dispose of drug waste” program. Besides that, cooperation between the Government and related professional associations is very necessary. For example, to provide training and outreach on how to manage medicines at home, especially in the proper storage and disposal of medicines to the community.

References


Learning Construction of Students of Prospective Teacher Based on Digital Literacy in the Era of Pandemic Covid-19

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Abstract. This article aims at building literacy-based learning for students of prospective teacher. Empirical problems sound that the effect of Covid-19 pandemic has affected education in various countries, including Indonesia. As a result, learning interactions are reduced due to a limited movement and access to learning, parental support, and significant changes in the new normal era, while conditions require life skills. This requires students of prospective teacher to have digital literacy skill as the competence of 21st century. It is very important to pay attention to them through integrative and adaptive learning constructs. There are various suggestions for studying in the era of pandemics. Qualitative methods focus on learning case strategies, students of prospective teacher, and lecturer to participate in this study. The data were collected and analyzed. Students of prospective teacher are digital media users in learning activities, while digital literacy skills demonstrate personal and social competencies and interventions from internal and external circumstances. Learning construction should pay attention to adaptive, participatory, integrative action, guidance, example, friendliness, and control of humanist movements. It is expected to improve professionalism and encourage the success of future prospective teachers in their profession.

Keywords: Learning construction, student-teacher candidates, digital literacy.

1 Introduction

The era of the industrial revolution 4.0 has been marked by the digitalization of various fields, especially education. Meanwhile, the vision of 21st century education requires the younger generation to able to contribute on global level. Meanwhile, the Covid-19 Pandemic has disrupted the education sector for 9 (nine) months, resulting in significant structure and learning patterns. The Indonesian government has set an emergency policy so that learning adapts to the digital-based learning environment due to social limitations and physical distance; thus, teachers and students must learn and master digital media online. However, in fact various online learning problems have been arisen.

The extension of the distance learning period is contained in a circular letter from the Ministry of Religion of the Republic of Indonesia, Ministry of National Education, PP Muhammadiyah Diktilitbang Council, Governor of South Sulawesi Province, Regent of Sinjai, and Rector of IAIM on the importance of online learning during the Covid-19 Pandemic. Meanwhile, the records of the Database and Bureau of IAIM Sinjai in the even academic year 2019-2020 and odd 2020-2021, indicates that students of prospective teacher of the Faculty of
Tarbiyah and Teacher Training have been involved in a distance learning. However, there are barriers such as internet networking, effectiveness and learning outcomes, organizing scientific assignments, presenting ideas, analyzing information content, and understanding scientific terms. This indicates that students' digital literacy skills are still low. However, the fact is that digital devices use is classified as massive among students and university students. The wide range of uses of information services, social media, games, and entertainment should improve literacy skills. Studies have shown that that teachers' familiarity with digital media does not guarantee teachers' competence in functional and pedagogical digital-based classroom learning [1].

In contrast, the intensity of smartphone use has a significant influence towards communication behavior but has a negative impact on users [2]. Attention tends be unproductive matters and is unable to use technology in writing scientific papers accurately [3]. Students' perceptions during online learning are constraints on digital facilities, networks, and support devices [4]. Many colleges have difficulty establishing an online infrastructure, which hinders learning effectiveness [5]. This is because teachers do not understand the essence of online learning, and student’s lack of freedom to learn [6]. Factors of ownership influence the gap in students' digital literacy skills, communication costs, and age initially using ICT [7].

The college student paradigm on online-based learning tends to be burdensome and does not accommodate learning interest. As a result, learning only accommodates teachers in completing teaching assignments, and participants are less successful. The Ministry of Education and Culture in 2017 has intensified the National Literacy Movement as part of the implementation of Permendikbud No. 23 of 2015 [8]. This movement target includes literacy culture in family, school, and wider community education. The educational ecosystem plays an important role in activating students' literacy culture, including in higher education. Meanwhile, the World Economic Forum 2015 determined six basic literacies, such as literacy, numeracy, science, finance, culture, citizenship, and digital literacy to develop 21st century life skills.

Thus, integrative learning based on digital literacy can be an alternative through pedagogical and constructive approaches. Since the students of prospective teacher are “digital natives” born from 2000 to 2010, they have personal way of acquiring knowledge through digital. Studies show that digital understanding of literacy has psychological effects on children and adolescents [9]. Meanwhile, digital literacy learning teachers in early childhood classes have offered digital resources that promote literacy learning for playing, scaffolding, and exploration [10]. The Final Report on the Assessment Criteria for the Level of Media Literacy in 2009 by the European Commission proposed the concept of determining the competence of individual competencies in digital literacy, such as using and utilizing, producing, analyzing, and delivering messages through the media [11].

Prospective teachers need to be equipped with adequate digital literacy skills as future learning interactions become increasingly complex and competitive. This means the demand to prepare prospective teachers' professional identity is ready to be competitive because learning has been integrated with technology [12]. The practice of digital literacy essentially forms creative, innovative, and contemporary education [13], [14] to demonstrate successful performance and achieve better learning outcomes [15]. Students with digital literacy skills will evaluate and use technology critically, information, and communication [16], become skilled digital citizens by adopting critical, multi-capital, and interdisciplinary pedagogical approaches [17].

Also, there is a paradigm shift in society if the teaching profession promises future success [18]. Therefore, the widespread use of digital media for students of prospective teachers should enhance literacy skills further. This study aims at determining the implementation of online
learning based on digital media during the Covid-19 pandemic, the digital literacy skills of prospective teacher teachers, factors influencing digital literacy skills, and building student learning through digital media literacy.

2 Method

This study utilized a qualitative type case approach, which considered and tried to constructively comprehend the learning cases of students of prospective teachers during Covid-19 Pandemic. The subjects of study were lecturers and students of prospective teacher of Faculty of Tarbiyah and Teacher’s Training of IAIM Sinjai in the odd academic year 2019-2020 and 2020-2021 by considering the purposive sampling. The criteria of participant criteria were the subjects’ heterogeneity comes from the Bugis and Khonjo tribes and languages with different dialects. The majority of subjects live in Sinjai and Bones hinterland with a moderate economy family background. Data collection utilized various techniques, such as offline and online learning observations (Zoom, Google Meet, and WhatsApp), interview with lecturers, and students of prospective teacher. There were 12 lecturers (PD) and 12 students who participated (PM), in addition to using audiovisual recordings [19], [20]. Researchers equip themselves with observation and interview instruments. The validity of the discovery data has taken into account the measures of credibility (presenting the data and proving it in twice), transferability (describing the data), reliability (repetition of the study), and validation (conveying the results to the informants). Data analysis using conditional, conditional, exposure and validation / conclusion models [21].

3 Results and Discussion

3.1 Overview of Digital-Based Online Learning

Digital-based online learning for students of prospective teachers takes several forms; (1). YouTube media in “Research Methodology” course of Islamic Religious Education Study Program, Teacher Education Madrasah Ibtidaiyah, and English Language Education utilized by Mr. Ismail. Meanwhile, Mr. Danial applied “Algebra” lesson to the Mathematics Education Studies Program. Lecturers create video content material, which is uploaded on the YouTube channel and accessed by the students for learning. (2). Google Class Media utilized by Mrs. Harmilawati on learning “Basic English Structure” in the English Education program. “Bahasa Indonesia” lesson utilized by Mrs. Laeli Qadrianti in the Islamic Religious Education and Arabic Language Education program. Students attend lectures by attending classes according to the code given by the lecturer. Completion of assignments in the form of paper and power points. (3). Media Zoom Meet and Google Meet utilized by Mr. Muhammad Kadir to teach “Diagnostic Learning Difficulty” in the Madrasah Ibtidaiyah Teacher Education program. Students attend those lectures and have face-to-face discussions after receiving the lecturer ID. (4). WhatsApp media group utilized by Mrs. Hasmiati teaches “Educational Management,” “Basic Teaching Skills,” “Kemuhmadiyahah Al-Islam” in the Madrasah Ibtidaiyah Teacher Education Study Program, Islamic Religious Education and Tadris Mathematics. Lecturers distribute assignments through groups, and student’s complete lecturer assignments. (5) Microsoft 365 Media utilized by Mrs. Irmayanti and Mrs. Nurjannah teach “Educational Statistics” in the
Mathematics Education Study Program. Each lecturer teaches materials using a variety of applications according to student preferences.

3.2 Digital Literacy Skills of Students of Prospective Teacher Personal Competencies (Technical Skills and Critical Understanding)

Lecturers and students of prospective teacher delivers argument that smartphones, tablets, and notebooks are used as personal communication media and social information sources. Also, as a medium to find references for lecture assignments. “The majority of students use digital media instead of manuals. Their interactions use social media; many of them great at designing, accessing quality reference sources. However, in learning, the practice of copying and pasting is still commonplace” (PD-2). We currently use smartphone media in learning because of pandemics, and not all of them support skills, as they are used more for communication” (PM-9).

This phenomenon shows that digital media has contributed to learning, such as learning and social media. Immediate service can be a factor of dependence on digital media. Meanwhile, digital literacy and information analysis do not present it as an act of learning, ability, and critical understanding. This situation causes passive learning such as presentation and class discussion; lecturers and students dominate learning are not involved as discussion partners. The digital literacy figure of students of prospective teacher demonstrates technical and cognitive skill by operating digital devices and interaction with computers, smartphones, and the internet in learning and beyond learning activities. In other words, students know, identify, and use digital media functionally and effectively.

3.3 Social Competence (Communicative Ability)

Besides, students of prospective teachers have interactive communication skills and build relationships, such as using social media services via smartphone devices with WhatsApp media services, Google Meet, Google Classroom, and while studying with lecturers. “Generally, social media such as WhatsApp, Facebook prefer to be used for communication between friends, family, and others. There are very few participants who are interested in learning the subject through groups, because there is no reading interest and motivation” (PM-1). “We generally complete the learning task by referring to the internet, as well as the interactive social media used to discuss when lecturers do not have time to teach” (PM-2).

Social competence can be seen through digital tools, especially interactive social media services, surfing the internet to obtain information resources, and online games, both individually and community-based (group). Such activities have demonstrated the ability to communicate and form a broad academic and social network (the ability to collaborate). Producing information content (content creation) is still under control, such as analyzing, presenting oral and written language in a constructive descriptive manner. The results show that digital media learning skills are generally unequal because students have problems using google classroom and searching for indexed journals. Different abilities are due to independent initiative and low learning interest.

3.4 Factors Influencing Digital Literacy Skills Supporting Factors

Students of prospective teachers see their digital literacy skills supported by “good internet network factor” (PM-3). “Adequate performance of digital devices and internet quotas” (PM-
4). “Library book availability and learning” (PM-5). “Advanced digital features for long-distance communication, information, and news” (PM-6). The statements indicated that adequate support facilities and digital media devices can enhance digital literacy skills. Also, “parents do not miss information from various media, so we are also motivated to learn and improve our abilities” (PM-7). “Almost everyone around me uses digital media for information needs nowadays, so we are also expanding ourselves” (PM-8).

This shows an environmental support, personal habits, and social interactions. Parents’ role in family life has created a comfortable learning environment, provided role models and adaptations so that the use of digital tools on a large scale is considered as a major need in learning. On the other side, factors of users’ habituation, social interaction, and communication culture become the supporting factors of literacy skills. The respondents stated, “Learning independence, interaction between students and lecturer should be considered because culture and communication independence will habituate and develop digital literacy skill” (PD-3).

3.5 Inhibiting Factors

Barriers to digital literacy for students of prospective teachers are internal and external factors such as low human resources and interest in learning, cost and digital means, and learning environment. “Knowledge and skills are still low” (PM-9), “it is difficult to understand quality references using foreign languages” (PM-6), “tired of operating digital equipment if the device is often damaged” (PM-11), “poor quality of Wi-Fi and internet network” (PM-10), “inadequate and high-cost internet facilities in the village” (PM-5), and “limited subject books” (PM-7). Furthermore, respondents if students’ digital literacy skills are not getting educational support. “We are still trying to take practical steps to teach internet and digital media skills, usually before teaching lecturers at the beginning of the semester lectures only deliver technical writing articles and refer honestly, but rarely teach the importance of analyzing information” (PD-1). “Many untrustworthy websites are used as a reference for information and writing assignments because we are rarely given the right methods and many more interesting game applications” (PM-12). “Students have dependence, for example, only relying on the internet when the percentage” (PD-3).

3.6 Students Learning Constructions Based on Digital Media Literacy

The interview observations and statements indicated a constructive learning strategy for prospective teacher of digital-based students, such as; (1). Adaptation and participation strategies. Adjust the learning tools used collectively prior to the learning. Lecturers provide media and learning resources such as relevant textbooks and online media platforms to learn independently and attach teaching training and provides online assessment services. Indonesian government program support in providing internet quotas, and students submit phone numbers to get free internet. (2). Guidance strategies and learning habits. Lecturers have been involved as role models, motivators, and rewarders, fostering a comprehensive reading of literature from a variety of sources, sharing reliable and scholarly reading materials, helping to provide information services that stimulate active and independent learning abilities, critical thinking, analysis, and synthesis of developed symptoms. “Directs them to tend to read journals online, especially this semester, so that they can get used to it” (PD-2). “Provide learning support resources such as e-books and links to find open access towards e-journals in lectures” (PD-1). (3). Control strategies. Manage discipline and self-management during online learning, mutual
control agreement, use digital media for communication (social media), entertainment and learning, and provide examples of friendly behavior and ongoing assessment.

This study found that student learning constructs based on prospective teachers’ digital literacy have maintained a theoretical basis. The implementation of online learning has been in line with the current government and institutional policies of the Covid-19 Pandemic. Teachers conducted learning based on mutual agreement by using different platforms such as Zoom, Google Meet, Google Classroom, WhatsApp social media, Facebook, and YouTube that take into account the abilities of learning participants. It supports previous findings that teachers generally have used online learning interactive media, but the weakness is there has not been found teacher evaluation regarding the use of media platforms [22]. Other findings show that Indonesia has provided good online infrastructure, but teachers do not understand the essence of online learning, and students lack the freedom to learn [6].

Platform choices have considered theoretical learning materials using Zoom, Google Meet online, while practical learning tends to be through YouTube videos. This is in line with previous studies’ results if distance learning based on social media is effective for theoretical courses and less effective in practical learning [5]. Therefore, it is important to pay attention to the principles of relevance and meaning, such as effective delivery, adequate support, high participation, and possible planning arrangements [23]. In the basic digital literacy level, student on basic level of digital literacy can implement learning resources, educational sites, and online learning applications [24]. Even early childhood learning offers digital resources that promote literacy in games, scaffolding, and exploration [10], including how to provide information to generation Z [25] effectively. The challenge of using this method is to identify children's participation in learning that requires adult help. Requires critical and constructive analysis skills to understand information. Independent learning and school policies do not accustom students to use digital media devices.

Cultivating digital literacy skills has considered adaptive learning with student-teacher candidates in Indonesia. Instead, countries like India [22], China [26], and South Korea have adaptive digital media relevant to distance learning. These findings also perpetuate theoretical concepts if the participants’ abilities are characterized by personal and social aptitude [11]. Personal competence only shows a part of technical proficiency and does not apply in critical understanding because of the lack of free learning. Meanwhile, social agility only proves the ability to foster social relationships based on digital media and does not promote and produce media content.

Digital literacy skills can be developed if there is free learning factor in individuals carried out meaningfully. Previous studies have suggested the importance of integrating and implementing meaningful learning because it will strengthen digital pedagogy, self-confidence, skills, and professional teachers of the future [27]. Also, other factors indicate the use of “groups/communities” based on digital media and social media to develop literacy skills to provide contribution towards learning and form a solid learning community. Every internal and external situation has affected digital literacy skills; this is important to get individuals and interested parties’ attention.

Digital media literacy in students of prospective teacher is crucial and urgent to consider. It requires unlimited tutoring guidance [28]. The learning constructs of students of prospective teacher offer constructive pedagogy, freedom, and courage to learn and foster meaning in digital literacy. This can respond the doubts about teacher professionalism in the future. It confirmed the previous studies that teachers’ familiarity with digital media did not guarantee teachers’ functional and pedagogical digital-based classroom learning. [1]. However, the learning will be easier if there are qualified teachers in the digital era [29].
Meanwhile, it can guarantee the academic and nonacademic improvement of prospective teachers, and reinforce previous studies if there are impressions of media use to literacy skills, including academic achievement [30]. This research can be a reference towards the development of learning technology in the New Normal era and give a concern towards the importance of different paradigms of inquiry, testing, and study contexts. However, empirical facts have supported that digital media was the last choice in learning during the Covid-19 Pandemic era.

4 Conclusion

The demand of digital media has call on that each individual should not reject anything related to learning issue. Although digital media has contributed much but its use should be adapted and constructed. Learning construct which is based on digital media literacy demand to be considered on students of prospective teacher as the professional entity in transforming learning so that it strengthens competence and social relation. Besides, it is expected that ideal students of prospective teacher are placed on the forefront of digital literacy movement because the activities they undertake are academic and a part of literacy activity. An excellent digital literacy media-based learning will support learning skill and professional prospective teachers in the future.

References

Reception of the Qur’an Based on Muhammadiyah Television Media

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Abstract. Media Information and Communication Technology (ICT) is a new medium used to perceive the Qur’an. In this case, Muhammadiyah uses television as a practical medium. This research is crucial to find out the typology of the Qur’an receptions that are presented. Therefore, this type of descriptive analytical qualitative research is an appropriate method of describing and analyzing data. The data was collected from program broadcast on TvMu and furthermore it was analyzed using data condensation, reduction, presentation, and conclusion drawing. The result indicates three typologies of the Qur'an receptions were found, namely hermeneutical, aesthetic, and functional receptions. This confirms that Muhammadiyah, as one of the largest religious organizations in Indonesia exists and is dynamic in its reception practices towards the Al-Qur’an.

Keywords: Qur’anic reception, muhammadiyah television, media

1 Introduction

The era of globalization is marked by the rapid development of media, especially the media of Information and Communication Technology (ICT). The presence of this media facilitates interaction between humans, wherever they are. The other function is the convenience of accessing scientific information without having direct learning. Therefore, when the pandemic has started to spread, it has forces us to limit our activities in crowd (Social Distancing). The existence of Information and Communication Technology (ICT) helps a lot, especially the field of scientific knowledge of Qur’an. Here, the important meaning of Information and Technology (IPTEK) based on Islamic values is presented [1].

Prior to the appearance of media, Muslims perceived the Qur’an using pure oral and written media which certainly had limited distribution. The dissemination of information was far different when the reception of the Qur'an was mediated by the ICT media at present, it had a wide impact. Considering this opportunity, Muhammadiyah as one of the largest religious organizations in Indonesia employs this moment by presenting programs as a reception towards the Qur’an on Muhammadiyah Television (TvMu).

The reception of the Qur'an is not only mediated by television but also internet-based ICT media such as Facebook, YouTube, telegram, and Instagram also give a color to the interaction of a Muslim with his book. One of the qualitative-based studies captured how the interaction occurs on one of the social networks, Facebook. This account owner actively perceives the Qur'an by presenting two types of receptions, such as aesthetic and hermeneutical receptions [2]. Aesthetic receptions appear on the recitation of the Qur'an. Meanwhile, the interpretation
of the Al-Qur'an is part of the hermeneutical reception. Another reception comes in the form of Khataman Al-Qur'an which is simultaneously performed through telegram media as a form of functional reception [3].

Realizing the importance of interacting with the Qur'an, social networks are widely used. They do not only use Facebook but also YouTube and Instagram as one of the most appropriate media. This diversity of media certainly produces a new reception, one of which is the reading of the Qur'an in murattal and mujawwad as a form of aesthetic reception [4]. It is reinforced by Nafituzzahra’s research that stated new media such as YouTube raises a new classification in interpretation field as audiovisual [5]. The importance of YouTube as a medium for perceiving Al-Qur'an was also recognized by Nouman Ali Khan, a YouTuber who presented the content of Al-Qur'an interpretation in his channel. This hermeneutical reception with youtube mediation was chosen by considering the wide reach of the interpreting audiences [6]. Fahrudin’s research (2020) which highlighted a short film about ghibah on a YouTube channel is also interesting [7]. This show indicates that the reception of Al-Quran is so wide.

Research on some of these social media indicates the extent of the practice of recepting the Al-Qur'an. In addition, the benefits of this reception practice have a wide range. However, another fact shows that the use of paid internet-based media will be difficult for a certain group of people to access because the economic has always been a central issue. People who live far from the accessible area as village has inadequate internet network, inadequacy of some parents who are not able to use social media also become the obstacles of enjoying this type of reception. Therefore, the presence of television media which is daily broadcast on TvMu is a response towards this problem. As it is known that television media is very popular in the community, close to the lives of parents. Here is the untouched area for internet-based reception.

Research on Al-Qur'an receptions based on TvMu media is important to carry out, considering that the Al-Qur'an reception by Muhammadiyah has not been known. It may not because Muhammadiyah doesn’t perceive al-Quran, but the type of reception is not presented. Thus, one of these points will be presented by examining by using reception theory on TvMu program events, which is what reception type is practiced, one by one.

2 Method

This living Qur'an study is categorized as qualitative descriptive analytical research, as carried out by many other researchers [8]. It is intended to study the reception practice presented through TvMu media, then it is fully described and analyzed. The data collection was performed by using observation and documentation techniques. This technique was used to obtain comprehensive data. Observation technique was used to observe in-depth program impressions, while documentation is used to collect all documents, in this case the collected documents are networked (online), through live streaming.

After the data was collected, it was analyzed using the flow of data condensation analysis, data reduction, data presentation, and drawing conclusions [9]. Data condensation analysis was useful for explaining all things related to the reception of the Qur'an from TvMu program broadcasts. After that, the data was categorized according to their fields. This categorization utilized the reception theory, whether the program was included in the reception category of hermeneutical, aesthetic, or functional. Furthermore, the data was presented systematically and closed with a conclusion.
3 Results and Discussion

3.1 Result

The results of research on Al-Qur'an receptions based on Muhammadiyah television media are described in the following Table 1. There are three important comments, such as: 1) Information related to the name of the television program which contains the reception of the Al-Qur'an; 2) A brief description of the program; 3) The conclusion is the determination of the type of Al-Qur'an reception obtained from the analysis of the TvMu program.

<table>
<thead>
<tr>
<th>No</th>
<th>Program Name</th>
<th>Short Description</th>
<th>Type of Reception</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Selected Verses</td>
<td>This program broadcasts an ustadz who describes the interpretation of the Al-Quran verses. The verses which are interpreted are selected verses according to the theme of the study.</td>
<td>Hermeneutical Reception</td>
</tr>
<tr>
<td>2</td>
<td>Advanced Islamic Studies</td>
<td>This program presents an Islamic study which takes a main theme from the Al-Qur'an.</td>
<td>Hermeneutical Reception</td>
</tr>
<tr>
<td>3</td>
<td>Divine Revelation</td>
<td>This program features the reciters who recite the holy verses of the Qur'an in a recitation style.</td>
<td>Aesthetic Reception</td>
</tr>
<tr>
<td>4</td>
<td>Religious Music Zone</td>
<td>This program features singers who sing religious songs, in which the lyrics contain religious sentences.</td>
<td>Aesthetic Reception</td>
</tr>
<tr>
<td>5</td>
<td>Al-Qur'an Therapy</td>
<td>This program is presented by a presenter and a resource person who is an expert in the field of Islamic medicine, which is treatment based on the principle that the Qur'an is a medicine (Syifa') so that it can cure all diseases.</td>
<td>Functional Reception</td>
</tr>
</tbody>
</table>

3.2 Discussion

A Muslim and another or a Muslim group and another Muslim group has their own way to express their reception towards Al-Quran. Any method utilized to perceive Al-Quran is the expression of the people’s love [10]. One of groups that succeeded in expressing their love was the Muhammadiyah Organization through TvMu media.

As the result of the previous mapping regarding the forms of the Qur'an receptions, the program on TvMu fulfills all the elements of a reception typology. The following will describe the classification:

3.2.1 Hermeneutical Reception

The Selected Verses Program and the Advanced Islamic Study Program are among the TvMu programs which are the practice of hermeneutical receptions. This reception is actually the first reception in the history of Muslims, namely a reception in the form of interpreting Al-Qur'an verses [11]. Likewise, this program also interprets the verses as the center of its study.
These two programs do not directly interpret the Qur'an in the sense of producing a product of interpretation, such as the complete interpretation of Imam Ath-Tabari or Hamka in Indonesia. However, this program features discussions adapted from the interpretation of the ulama. So even though we don't interpret the Qur'an in its true meaning, the study in this program contributes to the interpretation of the verse which is the main point in the reception of this model.

The practice of hermeneutical reception in TvMu media offers two types of interpretation, such as thematic and contextual. First, the thematic presentation is the study of the verses of the Qur'an following the procedures of thematic interpretation, which is the interpretation of the verse based on the determination of the selected theme [12]. Even in this search, the thematic study carried out has two thematic types, the thematic surah and the thematic terms [13]. The thematic surah is depicted in the Selected Verses program, in which an ustadz in delivering his study of interpretation chooses one surah and then it is studied comprehensively. Furthermore, the thematic terms are illustrated in the Progressing Islamic Studies program, namely in delivering a commentary on the interpretation departing from one of the terms in the Al-Qur'an, as in this program featuring the terms Fastabiqul Khairat and Amal Shaleh (Good deeds) as the theme of the study. Second, Contextual is an interpretation commentary that brings to the present space. As an example of a review of the two terms above, in which the two terms are integrated with the foundation of advancement of Muslims today.

3.2.2 Aesthetic Reception

Divine Revelation and Zone of Religious Music are two programs with different genres, but they both display a touch of beauty. That is why these two programs fall into the aesthetic category, where it is generally understood that the basic meaning of aesthetics is emphasizing the aspect of beauty. This type of reception is also included in receptions in the oral form because it relies on the indifference of the voice [14].

In relation to the reception of the Qur'an, the program of Wahyu Ilahi shows a reciter reading the Qur'an in the recitation (tilawah) model, which emphasize on the art of reading the Qur'an. This recitation model is included in the aesthetic reception category [15]. Reading the Qur'an in a melodious voice gives a special nuance for those who read and listen to it. There are three effects for the readers and listeners of the Qur'an. First, the heart trembles hearing the chanting of the verse, QS. al-Zumar; 23. Second, weep when listening to His verses, QS. al-Maidah; 83. Third, the explanation of what was heard from the Qur'an creates a close relationship between feelings and the moral condition of those who believed in them [16].

While the program of the Religious Music Zone displays a singer with religious lyrics. The chanted verse sounds serene and contains a deep religious message. Among the verses contain the message of death as sung by Ibn the Jenggot. Perhaps those verses with religious meaning act as a form of reception from the recitation of the Al-Qur'an, in which the verses of the Qur'an discuss a lot about death, as in QS. an-Nahl: 61, QS. al-Mulk; 2, and QS. al-Waqi'ah: 60.

3.2.3 Functional Reception

Al-Quran proclaims itself that it is a healer (syifa'), QS. al-Isra': 82. Historical records also showed that the Prophet Muhammad used the Qur'an as medicine, including the surah al-Fatihah [17]. On this basis, it is not wrong if the Qur'an verses are used as an alternative therapy for healing a disease [18]. In line with that, TvMu has a program called Al-Qur'an Therapy. This program shows an interaction about the miracle of the Qur'an verses as the healer. This program
is not a part of the direct field practice carried out by individuals or groups of people, but the interpretations delivered in the broadcast lead to the reception of the Qur'an as a healer, which becomes the thinking basis in future actions. Thus, this type of reception is called functional.

The presence of the Qur'an which is perceived in its functional form reaffirms that the Qur'an is not only a text that is read, but also as a medium of treatment [19]. Here it can be seen that the Qur'an occupies an important function in the life of the Muslim community, so it is true that Esack (2002) view emphasizes that a Muslim cannot be separated from the Al-Qur'an [20].

4 Conclusion

Through the TvMu media, it can be concluded that the Muhammadiyah organization practices receptions towards the Qur'an. The reception typology that is practiced includes hermeneutical, aesthetic, and functional receptions. Hermeneutical reception is reflected in the program of Selected Verses and Advanced Islamic Studies program, while aesthetic receptions are seen in the Divine Revelation Program and the Religious Music Zone. While functional receptions are shown in the Divine Therapy program. This discovery also enriched the treasures of Qur'an studies. Furthermore, this research is expected to become a reference in living quran research, especially in Muhammadiyah.

References


Exploring Conceptual Debates toward Non-Traditional Security: Searching for Indonesian Democratic Policing

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Abstract. This research is a fundamental study of the non-traditional security conceptual debates that have occurred for decades in various places around the world. The non-traditional security dimension highlights many aspects of human security, including aspects of food security, economy, social, energy, natural resources and the environment with an emphasis on aspects of community participation so that it accommodates democratic values in it. The debate over the concept to be explored is an "extension" to the concept of security outside the traditional security arena which leaves many aspects of security techniques. This includes a closer look at the implementation of democratic policing in Indonesia.

Keywords: Non-traditional security; democratic policing; human security

1 Introduction

The wave of world democratization is no longer inevitable. In the implementation of a democratic state, state administrators must be able to ensure that the process of interaction between citizens runs well and productively but while maintaining balance and order at the same time. The task is certainly not easy. In the one hand, it must be able to guarantee law and order enforcement, on the other hands it must be able to realize a very friendly, not scary appearance and mingle with others. The biggest task is formally on the shoulders of the police as representatives of state administrators in the field of order and security [1]-[4].

The book Former Indonesian National Police Chief, Police General Tito Karnavian along with Prof. Hermawan Sulistyowith the title Democratic Policing with a focus and context of Indonesia is not enough in emphasizing on the theoretical basis and root of an epistemology. Where and how of the concepts of democracy and policing come is understood and referred to, and in the context of what democratic policing is like. The intensity of the very high interaction between the police and citizens has made the national police become the most concrete and powerful representation in the country. Therefore, it is very significant to be able to re-examine the support of the philosophy and theoretical bases. Research on the theoretical basis of the process and implementation of democratic policing in Indonesia is a strategic step. To do that, it becomes very important to provide a discussion space on various perspectives of democratic policing to get adequate reviews.

Through this basic study, it is expected that readers will be able to help in mapping out various ideas and types that characterize the notions of democratic policing, especially in the
temporary context in Indonesia. In several discussions at the police training center for middle officers (Sespimen) and police training for high-ranking officers (Sespimti) in Lembang, West Java, quite a number of fundamental questions and inquiries about the basis of theory and traces of the scientific debate. They are more attractive to the downstream side, namely the forms of policing practices that have been carried out and then given the name democratic policing.

From the above phenomenon, there are gaps in the epistemology of the series of intersectional debates about policing and security, and the not-so-explicit roots of the axiom. At the theoretical and philosophical level, the inter-sectarian debates still continue dialectically and have not reached maximum points [6]-[8] and has not been absorbed much in the implementation of democratic police governance in Indonesia.

Policing basically is a process or a form of trained institutions or individuals who will serve and whose existence is aimed at whose interests, whether for the interests of the state, society, individuals or interests of capital owners and even elite interests from outside the country that has special interests. How the policing process is carried out so that it does not violate human rights with their authority to manage violence in creating social order [9]. The basic concept to be used is the concept of policing, democracy, human rights, orderly and social control, and security framework.

The conceptual variables are the functions and roles of democratic policing that can be controlled by the community in a participatory manner. There are two major variables of democracy and policing in the trajectory of changing the socio-political structure of society. By paying attention to the variety of thoughts and traditions of democracy (at least populist traditions, communitarian, libertarian, procedural and agonistic) [11]-[14], which traditions during does this imply when referring to the concepts and practices of 'democracy' around security issues? Which of these traditions is the most relevant to apply in contemporary life?

This research will provide renewal in the tradition of academic research that includes basic research while providing a strong conceptual understanding of the phenomenon of holistic security studies. The results of this research will provide solid foundation and argumentation and legitimacy for the implementation of democratic policing that is being carried out by the National Police through the PROMOTER police jargon (Professional, Modern, and Reliable). So that it will provide confidence in practical implementation and also provide adequate referrals in practices in the field. Including can provide various arguments and answers to critical questions about the work and enterprising of the police in Indonesia.

Democratic policing (DP) today is a widely used approach to policing not only in Western societies but increasingly around the world. It has been widely adopted in democratic countries since the Cold War, between the Western bloc which was driven by the USA and the Eastern Bloc which was driven by the Union of Soviet. However, individually some countries have tried to run it first. The DP is a concept that refers generally to the processes of implementing and seeking security through democratic corridors and processes [10][15].

There is a general acceptance by academics, international development agencies, nongovernmental organizations, and "transnational policing regimes" that reforms must establish structures of public policing that are not only "culturally appropriate but also democratic and respectful of fundamental human rights". It also consists of several principles such as accountability, participation and transparency [4][10].

The objectives of democratic police services and forces; the importance of their commitment to the rule of law, policing ethics, and human rights standards; the essential nature of police accountability to the law and to the society they serve; as well as the need for their cooperation with the communities, recognizing that effective policing requires partnership with the communities being served. Furthermore, the DP elaborates on structural and managerial
aspects within the police which are considered necessary to achieve and sustain democratic policing [15].

Democratic policing as a paradigm of policing in the democratic era builds a philosophical foundation on policing that respects human rights and ECOSOC rights as one of the human rights covenants which emphasize the basic economic, social and cultural rights of every human being. Therefore, the authors interpret democratic policing as a policing concept that refers to the main orientation of rule of law and respect for human rights [5][16][17].

A willingness to conform to the principles of democratic policing in post-authoritarian and transitional states is important to prevent human rights abuses, provide a minimal level of citizen security, and so forth—but also because fair and effective policing contributes to the very foundations of political order upon which democratic freedoms so often depend. The democratic policing is supposed to look like is one thing; translating these into practice on the ground is another matter entirely, given that there very often exists a disjuncture between what the reform process is supposed to achieve in general terms and what is actually achieved in regard to implementation [18].

Referring to Karnavian & Sulistyo, 2017 [5], the concept of modern policing is rooted in tradition in England in maintaining its security which began in pre-Victorian times, when Sir Robert Peel (1778-1850) began organizing police in London at that time. Peel organized the security guards very distinctively using black jackets and high wool hats and armed with short sticks and whistles. They patrol on foot [19]. The developing policing dimension is the basic question of who the police are in the dimensions of political sociology and how the police manage the authority given to them. The issue of managing coercive authority in the hands of the police is how to account for it as well as how it remains within the human rights corridor [2][5][20].

In security studies, particularly policing, the terminology of democracy provides a new perspective on conventional understanding; security is closely related to coercive power, the iron fist of an authoritarian government, and subjugation of society. Labeling 'Democratic' has lowered the dimension of arbitrariness because it is required to carry out accountability and transparency directly [9][21]. In addition, public service standards in policing are increasingly high and measurable and are getting closer to the human rights standard, increasingly making the practice of policing and security implementation more dependent on democratically legitimated power and also prioritizing the participation and interests of the people themselves [22][15]. Essentially, democratic security means viewing certain limits on human rights as more substantial threats to security than threats that could arise in case those rights are not limited and abused by the state.

Democratic policing that are visualized as a part of democratic security place security apparatus as a party that facilitates the creation of safety and also a sense of security for citizens [23]-[26], rather than the hand of the ruler who arbitrarily silenced the people under the pretext of 'national security'. The securitization theory developed by the Copenhagen School of Security elaborated the concept of securitization politics and securitization actors. In simple terms, securitization of the process of decision-making and policy in the field of defense, which is related to the distribution of power, authority, capacity, and capability of the military, as well as the handling of real ideological polarization. Terrorism is a security problem that not only threatens a country's sovereignty but also threatens human life. For this, a comprehensive security approach is needed to understand the problem of terrorism itself.

Barry Buzan defines security as "all efforts to pursue security from threats." Buzan added, there are three levels and five security sectors that are the focus of contemporary security studies. The three levels of security are individual, state and international. Meanwhile, the five
security sectors referred to by Buzan are political security, military security, economic security, social security, and environmental security [27].

In general, security studies and policing have two traditions, first focusing on macro, and state, regional, international dynamics. The second tradition highlights more about the functions and standards of security. Non-traditional security then provides an extension of various "sectoral" issues and resource safety, including human resources. The gap that needs to be bridged through this research is a wider rather comprehensive conceptual review that involves more citizen participation and includes gender dimensions in security discussions. Local dimensions such as the involvement of indigenous groups, especially to maintain the security of their main resources such as land and forests, have not been explored much in the debate over temporary security conceptions [17][5].

2 Method

This study is a desk study that conducts a meta-analysis of various secondary sources in the form of journals, research reports, systematic reviews and literature surveys. First, it will be used to curate the literature along with curatorial notes from various journals and secondary sources that can be accessed through various means, online, literature and secondary data from official institutions that are published. Second, classify and group the results of curatorial records and third do the meta-analysis of the results of the notes made. Then proceed by comparing and making an analysis based on periodic events. Meta-analysis is continued by comparing various cases that have been reported through various scientific journals. The process of information triangulation is done by comparing information and analysis obtained with more than 2 different sources that discuss the same issue or issue.

3 Results and Discussion

3.1 Result

Borrowing the idea of John Rawls [28], that policing is a kind of redistributive mechanism resting on notions of trust, equality, and legitimacy. Policing is about the management of uncertainties and rests on compliance and mutual trust. The main duties of the police are to maintain public tranquility, law, and order; to protect the individual's fundamental rights and freedoms – particularly life –; to prevent and detect crime; to reduce fear, and to provide assistance and services to the public. Progress towards democratic policing is made when there is a shift "from a control-oriented approach to a more service-oriented approach", where the primary concern of law enforcement remains focused on proactive crime prevention.

Classic summaries of democratic theory and democracy have little or nothing to say about the role of policing in developing or sustaining democracy [10][12]. Democratic police develop and implement their activities according to the needs of the public and the State and emphasize assistance to those members of the community in need of immediate help. The police must be responsive to the community as a whole and strive to deliver their services promptly, and in an equal and unbiased manner. Through their activities, the police should be part of society's common efforts to promote legal protection.
Indonesia is currently having a myriad of problems that still follow it. These issues include:
(1) receiving the impact of increasingly intensive mobilization and globalization; (2) the threat of terrorists and fundamentalist movements; mass demonstrations of various social, economic and political problems, labor movements and other security disturbances; (3) increasing demands on improving the quality of public services; (4) sharpening socio-economic inequality in access to resource allocation; (5) the threat of national disintegration, and (6) poverty, and ignorance. The entire problems above have the potential to become a crime that harms citizens and the state if not the right solution. In its handling by the National Police, it is categorized into 4 categories of crime, namely: (1) conventional crime; (2) transnational crime; (3) crimes related to state wealth, and (4) crimes that have implications for contingency.

Real problems are every day facing the Indonesian government is more threats non-traditional. Not much different from Indonesia, in the Asian region a threat Non-Traditional is considered the main issue that threatens security region. This threat consists of the issue of terrorism, smuggling light weapons, armed separatism, sales of women and children, forest fires, piracy, money laundering, drugs trafficking. Despite threats Non-Traditional is a major issue in the Asian region but is a threat traditional still has the potential to cause conflict in the Asian region in general, including border disputes such as border issues Indonesia-Malaysia on the issue of Ambalat, Indonesia and the Philippines about the Miangas Islands problem, contingent landing boundary issues between Malaysia and Singapore.

Indonesia, the threat of terrorism has become a serious problem that must be faced by countries in the ASEAN region especially after the September 11, 2001, WTC event. Must admittedly, modernization and globalization have in a sense affected the nature of terrorism becomes more complex and complicated. Group of terrorists no longer move in an isolated situation. Space and opportunities that terrorist groups have to carry out their actions are increasingly widespread. This makes the phenomenon of terrorism relatively difficult predicted to determine when and where terrorist groups are will do the action. The facts also show that at present terrorism is difficult to separate from the development of crime organizations transnational organized crime in various ways variety and shape. Starting from money laundering crime, illegal drug trafficking and also trade in firearms illegally. The response to this problem has given birth to a new battle map global politics and has become a symptom of the restructuring of the political system and security in many countries.

In Indonesia, the starting point of the history of democratization began in the 1998 reformation. This reform has resulted in demands for the National Police to make changes at the level of the system, structure, and culture of the Indonesian Police institution, which became known as the National Police Reformation. This reform aims to change the image of the National Police from militaristic to civilian police in a democratic era that upholds human rights and civil society, as well as professional and accountable.

In the context of a democratic country, the police as a state instrument in the field of law enforcement and the maintenance of security and order of society require harmony with the social structure so that the role of the National Police is in line with the needs of the community. In this framework, the concept of policing in the era of democracy refers to the orientation of policing based on law enforcement and policing based on human rights. The status of the National Police as a civil institution is in line with universal norms contained in UN Resolution Number 143 dated July 14, 1960, concerning Non-Combatant Police. With this status, all norms or rules in the civil society apply to all members of the National Police.

The other issue of security is the international landscape of terrorist threat now with new trends. In terms of the global landscape, terrorism would be divided into two waves. Terrorism is basically the use of force or threat use of force against civilian or noncombatant for political
and ideological perspective. So, violence against the military is not terrorism, and economically, rather than ideological, motivated violence is not terrorism. So, terrorism is a very general term, crossing a lot of differences such as religion, ethnicity, nations, etc. We also have many types of terrorism; it can be ethnic-nationalist, such as separatism in Sri Lanka, Papua, and Southern Philippines. There is also terrorism motivated by a single issue. The other example is anti-abortion movement in the USA using violence. But it can be also religion-related, we call it religiously motivated terrorism.

It can be imagined how heavy the task of the Indonesian National Police in anticipating and maintaining public security and order over the socio-economic and political impacts that occur in Indonesia today as identified above. Of course, it needs to be considered further how the POLRI can carry out its duties strategically by involving citizen participation in the concept of community policing or POLMAS. Because what is certain is that the ratio of the number of police to the population and area of the Republic of Indonesia is very unbalanced.

Within the framework of counterterrorism, the British government and the German government have used the concept of community policing, specifically to obtain information about the movements and maps of terrorists who enter one of their regions. The British government uses community intelligence systematically to ward off security disturbances there. In his analysis, Inees Martin stated that the involvement of people in the UK in maintaining security and public order in their regions could reduce the incidence of terrorism and make potential terrorists not feel a place to breed their fundamentalist ideas or carry out acts of terror. The community automatically provides “intelligence” information to the UK police for every new person who comes to their territory. Intelligence information is conveyed electronically to their data centers without sacrificing the rights of migrants. Monitoring becomes routine, especially to monitor the behavior of new people, as well as their own citizens when doing something suspicious.

3.2 Discussion

In a democratic state, the system is an obligation for all security actors, not just the military, to submit and obey the political authorities who have been elected through general elections. At the legislative level, the government has several new legislations in the field of defense security namely the Law on National Defense No. 3/2002, UU TNI No. 34/2004, UU Polri no 2/2002 and Intelligence Law no. 17 of 2011 as a legal basis in strengthening security systems. Before a number of laws and regulations it was also formed by TAP MPR No.VI/2000 and TAP MPR No.VII / 2000 which became the initial step in making changes in the security sector during the reform era. Admittedly formed some of these rules are positive achievements of sector reform security.

In a democratic, the basic foundation of the policing concept cannot avoid the principles of human rights in carrying out the duties and functions of the police. The basic foundation of human rights is used as a benchmark for accountability both to the external and internal parties of the police themselves. The National Police, in this case, is required to have a match between the functions of policing and human rights principles. Law enforcement through the function of policing in order to create security conditions must be balanced with freedom of human rights. Moreover, ECOSOC rights are also a concern of the function of policing in the era of democracy. The democratic policing paradigm that describes as the importance of paying attention to the dimensions of human rights, ECOSOC rights and respect for civil society as a paradigm of policing in a democracy. The basic foundation of human rights is used as a benchmark for accountability both to the external and internal parties of the police themselves.
Thus, the National Police, in this case, is required to have a match between the functions of policing and human rights principles. Thus, law enforcement through the function of policing in order to create security conditions must be balanced with freedom of human rights.

4 Conclusion

In the Indonesian context, the implementation of the concept of democratic policing has been embodied by the police of the Republic of Indonesia in various forms. First, the changes to rank levels of police carrier that it not the same as the military ones and changes in the police education curriculum. Attention to women and children and gender dimensions have become an inseparable part of POLRI's work practices. Likewise, very detailed regulations have been made regarding the use of weapons and other means of violence.

Basically, the concept of democratic policing is an integral part of the basic conception that it’s provides space for citizens’ democracy and maintains it as democratic mechanism, where the main task of the police is to keep those rules still workable within people's lives in Indonesia running without coercion. The implementation of police work must reflect the application of the basic principles of democracy in every action it takes. If there is a process of violence that must be used by the police in certain matters, then the policing actions that must be carried out remain in their corridor to face these dangers through measurable police actions and still in line with standard operating procedures of the police. Then bring all perpetrators of crime and users of violence to the applicable legal mechanisms. So, the action of policing is an action for law enforcement, not killing or eradicating threats to the country's sovereignty.

The debate about the concept and strategy of implementing democratic policing which still needs to have sufficient space is how far they can be clearly distinguished from the role of the army tasked with safeguarding state sovereignty.

References

Internalization of Ecopreneurship Values through the Development of Poetry Anthology in Primary School

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Abstract. Covid-19 is an indicator of the ecological system imbalance. Indonesia is one of many countries affected by Covid-19 when there are many problems that occur today. Based on the result of Global Competitive Index, there are three main problems in Indonesia: economic, environmental, and primary education. The ecopreneurship concept is considered as a solution to solve the problems faced by Indonesia. Thus, there needs to be a comprehensive effort to implement ecopreneurship concept in various fields. One of the interpretations of ecopreneurship concept in primary education sector can be implemented through Developing Poetry Anthology Based on Ecopreneurship Values. Therefore, this research aims to develop Poetry Anthology Based on Ecopreneurship Values to antisipative effort to face the main problems in Indonesia. The research method was a research and development (R&D) involving lecturers, teachers, and students in college and Primary School. This research described the process of designing poetry anthology and the result of trials proving the anthology can be used as an alternative teaching material in primary school in term of language, content, pedagogical characteristics, conformity to ecopreneurship concept, and layout or images. The results of this research are expected to provide benefits to various parties, especially primary school teachers in developing innovative and creative teaching materials.

Keywords: Ecopreneurship, poetry, covid-19

1 Introduction

The Covid-19 pandemic has an unexpected policy impact in every area [1][2]. Various efforts have been done and one of the curative efforts that began to be implemented is the implementation of the "New Normal" era to anticipate problems that often occur during the Covid-19 period, especially in the sector of economy, social, environment, and education [3]. Covid-19 should make Indonesians do a reflection because this disaster is strongly related to the behaviour of Indonesians who are not environmentally friendly. Although Indonesia is believed to have excellent demographic potential and is expected to experience the golden age in 2045 [4], the way Indonesia deals with this pandemic seems to clearly show that Indonesia should continue to improve and seek better preventive and curative solutions to overcome problems that occur [5]. According to the Global Competitive Index, Indonesia ranked 38 out of 139 countries. Considering the huge demographics of Indonesia, this achievement was far from excellent. Indonesia is currently facing three types of problems, namely, (a) economic problems
caused by low productive behaviour and high consumptive behaviour; (b) environmental problems that lead to poor health system; and (c) educational problems, especially related to segregation and lack of inclusive education issues [6][7]. These three problems should be solved first in this Covid-19 pandemic. Moreover, Indonesia is believed to have a potential demographic with the population mostly coming from millennials or Gen Y. In Indonesia 2015, Gen-Y or the Millennial Generation amounted to about 137.9 million people, according to Central Statistics Agency [8][9].

Ecopreneurship is regarded as a solution that can be used to solve the three main problems faced by Indonesia today. Conceptually, ecopreneurship is the integration of ecoliteracy and entrepreneurship concepts. The concept was first developed by Schaper who defines the ecopreneurship as a form of entrepreneurship that is environmentally friendly [10]-[12]. At first, the concept was implemented in the economic world and has not been massively adopted in various fields, including the field of education.

Every primary school teacher should be able to initiate an internalization of ecopreneurship values in all creative learning activities. One of the learning activities that could be chosen to internalize values and characters in students is poetry learning. Poetry is believed to be the appropriate method for internalizing humanitarian values and related to the nature of education that aims to humanize human [6]. Through poetry, children will be internalized events in their surrounding environment. Poetry provides a life experience meaning a child's experience is unearthed through his or her experience when reading poetry. In addition, literary texts teach characters without having to patronize. But unfortunately, the research and availability of children's literature reading materials in primary school is still limited let alone poetry containing the values of ecopreneurship. Therefore, the results of this study describe the process of developing an anthology of children's poetry based on ecopreneurship covering the stage of (1) preliminary study; (2) design; (3) trials; and (4) validation, so that the anthology of poetry can actually be utilized by any primary school.

The results of this study are also expected to be a comprehensive effort in improving literacy and writing skill in primary schools. Moreover, literacy reading and writing in Indonesia is still relatively low and requires the attention of all the community, especially teachers in primary schools [13]-[15]. The results of this study are an alternative to the creation of useful teaching materials in primary school.

2 Method

This study is a research and development (R&D) study with a model referring to the model proposed by Borg and Gall (1989) according to [9] adapted to the field of education. The main stages of this research in Figure 1.
The results describe the process of developing an anthology of children's poetry based on ecopreneurship covering the stage of (1) preliminary study; (2) design; (3) trials; and (4) validation, so that the anthology of poetry can actually be utilized by any primary school. The data then were analysed through the following four stages: (1) the collection of the relevant data in accordance with research variables (2) the presentation of the data collected (3) the reduction and cataloguing of the data (4) the conclusion drawing based on the results of valid and reliable data verification [9].

3 Results and Discussion

This research is one of the efforts to develop teaching materials of children's literature interpreted in the form of Anthology of Children's Poetry Based ecopreneurship with the theme/topic about Covid-19. The reason for the selection of covid-19 topic is expected to be one of anticipatory efforts to face the negative impact of the Covid-19 Pandemic so that the values of ecopreneurship internalized in each poem are expected to be the guideline of students in addressing various possible problems that occur today and future. Moreover, the values of ecopreneurship are believed to be the right step in preparing the Golden Generation in 2045 and are expected to accommodate three problems of Indonesia today, including the economy, environment, and basic education.

This research uses research and development (R&D) design with a model that refers to the opinions of Borg and Gall (1989) tailored to the field of basic education and needs. There are four main stages performed in this study, including: (1) Preliminary study stage; (2) design; (3) trials; and (4) validation. Here's an overview of the research that has been done.

3.1 Preliminary Study

There are two important stages performed in preliminary study, including:

1. The Literature Study

The study of literature that researchers have interpreted through the search activities of relevant theories in the development of anthology of children's poetry based on ecopreneurship as a conceptual foundation to develop an anthology of poetry that is representative with the characteristics and needs of primary school students and relevant theories that have been collected by researchers include: (1) The basic framework of the concept of ecopreneurship; (2)
internalization of ecopreneurship values to anticipate the disruptive era during covid-19 pandemic; (3) children’s poetry.

2. Previous Research

Some of relevant research to development of an anthology of children's poetry based on ecopreneurship has not been done. At first the concept of ecopreneurship existed only in economics and has not yet penetrated in the field of education, but the values contained in the concept of ecopreneurship are considered important to be taught in the context of education. Researchers conducted the study as a part of ecopreneurship concept framework in education. The concept of ecopreneurship began to be reviewed specifically in primary school [16], the study that had been done gives a concept of ecopreneurship although there has never been any research specifically on the development of teaching materials based on ecopreneurship. As for the development of teaching materials that Andriani has developed (2019) only discusses the concept of ecoliteration. Therefore, this study was conducted as an effort to develop teaching materials in the form of literary anthologies based on ecopreneurship in primary school that are considered never done by other researchers.

3.2 Design

1. Formulating the Purpose of Book Development

The anthology of poetry developed is aimed at grade IV students as a manifestation of the internalization of ecopreneurship values that are expected to support the thematic learning process in Grade IV Primary School Environmental Themes.

Here is a list of Basic Competencies selected and used in Theme 1 (Me and My Dreams) and Theme 3 (Caring for the Environment) based on the curriculum which is a reference to the development of an anthology of children's poetry based on ecopreneurship contained in Table 1.

<table>
<thead>
<tr>
<th>Basic Competencies</th>
<th>Indonesian Language</th>
<th>Natural Sciences</th>
<th>Social Sciences</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2 Acknowledge and thank god almighty for the existence of environment and natural resources, modern and traditional technological tools, technological developments, social, and social problems.</td>
<td>1.1 Increasing his faith by realizing the relationship of regularity and complexity of nature and the universe to the greatness of God who created it, and making it happen in the practice of religious teachings he embraced.</td>
<td>3.5 Understanding humans in the dynamics of interaction with the natural, social, cultural, and economic environments.</td>
<td></td>
</tr>
<tr>
<td>2.4 Have concern for the environment and natural resources through the utilization of Indonesian language.</td>
<td>2.1 Demonstrate scientific behavior (being curious; objective; honest; conscientious; conscientious; diligent; caring; responsible; open; and environmentally caring) in daily activities as a form of implementation of attitudes in conducting scientific inquisitions and discussing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.6 dig into the contents and mandate of poems presented orally and written for pleasure</td>
<td>3.7 Describe the relationship between natural resources and the environment, technology, and society</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.6 Write personal poems with proper pronunciation, intonation, and expression as self-expression.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Based on these three basic concepts, the purpose of developing this poetry anthology is to provide alternative teaching materials through the internalization of ecopreneurship values in poetry. Moreover, the topics or themes created are based on contextual conditions related to the Covid-19 Pandemic Topic.

2. Anthology Design/Prototype

The design of an anthology of ecopreneurship-based poetry has reached 98% and has been tested limited and validated by expert judgement. The design of poetry is based on 18 values of ecopreneurship and in its development, the values of ecopreneurship internalized in this poetry anthology are each interpreted in at least two poems for each grade, so it is hoped that primary school students can find differences in grades in each of them and can benefit from the values highlighted to be consoled in daily behavior. One of examples of poems that have been composed in Table 2.

<table>
<thead>
<tr>
<th>Poetry</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aku bisa Sendiri</td>
<td>I can be alone</td>
</tr>
<tr>
<td>Aku tak buta kamu ada</td>
<td>I'm not blind</td>
</tr>
<tr>
<td>Aku tak tuli kamu meracuni</td>
<td>I'm not deaf</td>
</tr>
<tr>
<td>Aku tak bisa kamu meracau</td>
<td>I'm not dumb</td>
</tr>
<tr>
<td>Aku tak diam kamu bergeriliya</td>
<td>I'm not silent</td>
</tr>
<tr>
<td>Kenapa kamu hadir? Takdir?</td>
<td>Why are you present? Destiny?</td>
</tr>
<tr>
<td>Tak ada yang tahu dan aku tak mau tahu</td>
<td>Nobody knows and I don't want to know.</td>
</tr>
<tr>
<td>Corona...</td>
<td></td>
</tr>
<tr>
<td>Karena mu aku tak bisa mendaki gunung</td>
<td>Because of you, I can't climb a mountain.</td>
</tr>
<tr>
<td>Karena mu aku tak bisa berselancar lepas di pantai</td>
<td>Because of you I can't surf offshore.</td>
</tr>
<tr>
<td>Karena mu aku tak bisa melihat indahnya kampung halaman</td>
<td>Because of you, I can't see the beauty of your hometown.</td>
</tr>
<tr>
<td>Karena mu aku tak bisa merasakan hangatnya dekapan orang tersayang</td>
<td>Because of you, I can't feel the warm ness of my Lovely</td>
</tr>
<tr>
<td>Tapi itu dulu!</td>
<td>But that was it!</td>
</tr>
<tr>
<td>Saat aku tidur dan kini terbangun</td>
<td>When I went to bed and now I wake up.</td>
</tr>
<tr>
<td>Tak ada lagi keluhan, tangisan, dan air mata</td>
<td>No more complaints, cries and tears</td>
</tr>
<tr>
<td>Tak ada lagi drama dan jebakan diorama</td>
<td>No more drama and trap dioramas</td>
</tr>
<tr>
<td>Aku bisa bangkit sendiri dan tak ingin bergantung</td>
<td>I can rise up on my own and i don't want to rely.</td>
</tr>
<tr>
<td>Saatnya kembali ceria dan mendapatkan untung</td>
<td>It's time to get back to cheering and profiting</td>
</tr>
<tr>
<td>Bersahabat dengan alam</td>
<td>Friendly with nature</td>
</tr>
<tr>
<td>Menciptakan karya dan usaha!</td>
<td>Create a work and effort!</td>
</tr>
</tbody>
</table>

The design of the poem anthology above is based on aspects of language and the concept of ecopreneurship that is expected to be truly representative.

3.3 Trial
The trial was conducted through limited tests and extensive tests conducted at SDN Teluk Pucung 1 Bekasi City, initially trials will be conducted in two schools but due to the Covid-19 Pandemic not all schools can accept research activities even though both schools are lip ubhara jaya partner schools, without reducing the intent and purpose of the research amid the limited impact of Covid-19 trials conducted only at SDN Teluk Pucung 1 Bekasi city by engaging research subjects or respondents of teachers and students in grade IV of SDN Teluk Pucung 1 Bekasi City.

The trials conducted during this study were limited to 10 students. Based on the level of read ability and understanding in the anthology of poetry can be seen through Table 3.

### Table 3. Student Limited Trial Results.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Percentage</th>
<th>yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Content</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poetry anthology illustrates themes based on entrepreneurial values</td>
<td>100%</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td><strong>Diction and Language Style</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poetry anthology uses easy-to-understand words</td>
<td>80%</td>
<td>20%</td>
<td></td>
</tr>
<tr>
<td>Poetry anthology pays attention to rhymes and rhythms accordingly</td>
<td>100%</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td><strong>Assessment</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Visual impressions</td>
<td>100%</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>Auditive impressions</td>
<td>90%</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>Tactile impressions</td>
<td>70%</td>
<td>30%</td>
<td></td>
</tr>
<tr>
<td><strong>Meaning of The Word</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poetry anthologies create a broad and unscpiteive wording that is rich in emotional disclosure</td>
<td>100%</td>
<td>0%</td>
<td></td>
</tr>
</tbody>
</table>

The limited test results in Table 3 show students' responses to anthologies made in line with researchers’ expectations, but these results should be retested in broader testing.

### 3.4 Validation

Validation is done through construct validation where the poetry anthology that has been tested is limited then validated by several validators who are experts in the field. The following construct validation results can be viewed in Table 4.

### Table 4. The Result of Construct Validation.

<table>
<thead>
<tr>
<th>Aspects</th>
<th>Description</th>
</tr>
</thead>
</table>
| Language and Content  | The language used in this anthology is considered to have represented the characteristics of grade IV primary school students by describing several characteristics, including:  
1. Language expression is simpler judging by the elements of diction, structure, expression, and possible inclusion  
2. The language and depowering of various expressions, imagery and various depictions is still limited to the reach of the child |
3. The emotional aspect is always in line with the divorce of the senses

| Ecopreneurship Concept Conformity | Each poem already represents 18 values of ecopreneurship, although each value is manifested only in two poems. But every depiction of the value in each poem is considered in accordance with the values of ecopreneurship. |
| Pedagogical Characteristics/ Children's Books | Poetry anthology arranged deserves to be used as a supporting material for thematic learning, especially for theme 1 and theme 3 |
| Illustrations and Layouts | The layout, color selection, and illustration image in the cover already illustrate the characteristics of Grade IV primary school children. |

4 Conclusion

The development of a poetry anthology based on ecopreneurship that has been composed reached 98% and has been carried out a limited test process for teachers and students in SD Teluk Pucung 1 Bekasi City. The limited test results showed that the anthology developed was considered to represent the needs of elementary school students, this was confirmed through constructed validation from expert judgement which revealed that the anthology of poems composed already meets the elements of learning materials in elementary school from various aspects including: language, content, ecopreneurship concept conformity, pedagogical characteristics/ children's books, illustrations and layouts. The next step to improve the results of this study will be to conduct more extensive tests on teachers and students. Therefore, the results of this study are expected to be a reference for teachers and other researchers in developing grade-based teaching materials in primary school.

References

Parent Rearing Practice, Sex, and Child’s Social Adjustment in Magelang, Indonesia

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Abstract. This article emphasizes studies to: (1) examine the effect of authoritarian, democratic, and permissive parenting on children's social adjustment, and (2) examine the ability of social adjustment from a gender perspective. The study subjects were 240, consisting of 120 boys and 120 girls. The method of collecting data on children's social adjustment used observation with time sampling techniques, while the data on parent rearing practice used a questionnaire. The analysis technique in this research used Structural Equation Modeling (SEM) with the Partial Least Square (PLS) technique with the help of the SmartPLS 2.0 application program. The results showed that the children's social adjustment can be explained jointly by the parenting style of authoritarian, democratic, and permissive parents by 78.5%. Authoritarian parenting has an effect on children's social adjustment as indicated by the t value of 2.685 (p <0.05), democratic parenting of 8.043 (p <0.05), and permissive parenting of 1.990 (p <0.05). The effective contribution of democratic parenting to children's adjustment is the highest compared to authoritarian and democratic parenting (Effective contribution of democratic parenting: 48.6%, authoritarian parenting 16.1%, and permissive parenting 13.8%).

Keywords: Rearing parent practice, Sex and child’s social adjustment

1 Introduction

According to Calhoun and Accolle, adjustment is defined as a person's continuous interaction with himself, with other people, and with his environment [1]. Based on the opinion of Calhoun and Accocella, it can be argued that adjustment to other people is a social adjustment and social adjustment is an aspect of self-settlement. Hurlock said social adjustment is a mental and behavioral process that encourages a person to adjust to desires that come from within oneself that can be accepted by the environment [2].

The child’s success in doing the social adjustment can give happiness to the child and will raise adaptive behavior. On the contrary, child who is less capable or fail in the social adjustment will raise problems for the child and the environment. The research conducted by Ahmad & Naqvi (2016), showed that social adjustment has a relation with problematic behavior on adolescent [3]. Before this research, the research conducted by Setyaningsih, et al. (2006) found that social adjustment and the ability to solve the problem has a relation with delinquent behavior tendency [4].

The aggressive behavior characterized by always hurting other people physically and psychologically is one of the indicators of the child’s inability to make social adjustment with the environment. There are lots of child behavior that showed the inability to make social adjustment such as: always bothering their friends while playing, snatching their friends’
playing tools, quarreling/fighting, do not want to sit still, always walking and running when the learning process takes place and so on. The research results conducted by Purwati et al. (2017) on preschool children in the Early Childhood Education (ECE) Institution in Magelang City are: (1) fighting (54%), (2) kicking (48%), (3) hitting (34%), (4) snatching toys (27%), and (5) throwing things (15%) [5]. Another researcher, Campbell (in Singh, Dhania, Sharma, & Jaiwal, 2007) showed that more than 14% preschool children showed deviant behavior [6]. Preliminary study is conducted to know the social behavior of early childhood in the Early Childhood Education (ECE) Institution Menayu Village Muntilan Sub-District, from 34 children it was found that 45% showed the always snatching their friends’ toys behavior, 25% do not want to be left by their parents or nanny behavior, 24% crying not wanting to play with their friends, and the rest is showing a cannot be silent behavior, do not want to sit still.

Child social behavior is a manifest of the child’s ability to adjust socially with the environment. The child’s social ability is formed and conditioned by the environment, namely family, community and school environment. The effect of family environment through parental care has a big role in the child’s ability to adjust socially. Scharf, Wiseman, and Farah [7] stated that parents play the important role on child’s social adjustment. The parenting style of parents has a big effect in the child’s social behavior and will affect in the further development [8][9]. According to Whittaker and Cornthwaite [10], the parental care can support the level of child’s social development and will be brought into the further development. Whereas according Williams et al. [11], the parenting style of parents will affect the child’s attitude broadly. This showed that it is not impossible that it can affect the child’s social attitude while interacting with friends or other people.

The early childhood period is a critical period in the human life span, that will affect life in the future. The experience and knowledge in the early age period especially in the socialization and social interaction with the environment are very important [12]. The quality of parenting, the relationship and relation with peers and groups, contributes to the child’s social development [13]. The parental care for child in the family environment are: authoritarian, authoritative or democratic and permissive [14].

This research tries to know the correlation between parenting style and gender with the child’s social adjustment especially in school. The research is conducted in the Early Childhood Education Institution in Magelang City. Furthermore, this research that conducted by researcher produce the relationship between parents rearing and child’s gender on social adjustment on social environment, which kind of parenting that has highest contribution on social adjustment. This is essential for parents and educator, so they can implement the best, conducive parenting and give the comfortable atmosphere in the child, so child able to make fine social adjustment.

2 Method

This research aims to know the correlation between parenting style and gender with the child’s social adjustment especially in school. The research design is correlational with two independent variables namely parenting style and gender, and one dependent variable namely child’s social adjustment. In this case, the parenting style is seen from the parents’ perception. The research subject is children in the the Early Childhood Education (ECE) Institution with an age range of 4-6 years as well as their parents consist of: 1) parents with the total of 80, and 2) children with the total of 80 consisting of 40 boys and 40 girls. The students’ sample collection
The technique used is purposive sampling. The instruments used in the research are: 1) parenting style questionnaire given and filled by parents, 2) child’s social adjustment scale. The data collection methods used questionnaire and observation with the “time sampling” or “interval sampling” approach [15]. The analysis technique used in the research is Structural Equation Modeling (SEM) approach with Partial Least Square (PLS) technique with the support of SmartPLS 2.0 application program.

3 Results and Discussion

3.1 Fit Model Evaluation

The data analysis results by using SmartPLS 2.0 program are as follows:

3.1.1 The assessment of outer model or measurement model

The outer model testing can be conducted by testing the discriminant validity. Discriminant validity can be conducted by comparing the AVE root value of each construct or variable with the correlation of each construct or variable. More details can be seen in the Table 1.

<table>
<thead>
<tr>
<th>Latent Variable Correlations &amp; Akar AVE</th>
<th>Democratic</th>
<th>Authoritarian</th>
<th>Permissive</th>
<th>Social Adjustment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Democratic</td>
<td>1.000</td>
<td>0.628</td>
<td>0.843</td>
<td>0.722</td>
</tr>
<tr>
<td>Authoritarian</td>
<td></td>
<td>1.000</td>
<td>0.736</td>
<td>0.740</td>
</tr>
<tr>
<td>Permissive</td>
<td>0.676</td>
<td>0.736</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>Social Adjustment</td>
<td>0.843</td>
<td>0.722</td>
<td>0.740</td>
<td>1.000</td>
</tr>
</tbody>
</table>

Source: SmartPLS Output

Based on Table 1, showed that the AVE root value (the diagonal number in the table) is higher than the correlation between one construct, or variable with others, therefore it can be concluded that each construct met the good discriminant validity.

3.1.2 Structural model (inner model) testing

The inner model or structural model testing is conducted to see the correlation between variable, significance value, and R-square from the research model. Structural model is evaluated by using the R-square for the construct or dependent variable, t test, and the value of structural path parameter coefficients show in Figure 1.
The model assessment with PLS is started by seeing the R-square for each dependent latent variable. The change in the R-square value can be used to assess the effect of certain independent latent variable to the dependent latent variable whether it has a substantive effect. Table 2 showed the R-square estimation results by using SmartPLS.

Table 2. R-Square Value

<table>
<thead>
<tr>
<th>Latent Construct</th>
<th>R Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Democratic</td>
<td>0.784676</td>
</tr>
<tr>
<td>Authoritarian</td>
<td></td>
</tr>
<tr>
<td>Social Adjustment</td>
<td>0.784676</td>
</tr>
<tr>
<td>Permissive</td>
<td></td>
</tr>
</tbody>
</table>

Source: SmartPLS Output

Based on the Table above showed that the R-square value for the social adjustment variable of 0.785 which means that the social adjustment variable is explained by the authoritarian, authoritative, democratic and permissive together as many as 78.5%. The construct model evaluation is then conducted by calculating the Q-square predictive relevance as follows:

\[ Q^2 = 1 - (1 - R^2_{PLS}) \]
\[ = 1 - (1 - 0.785) \]
\[ = 1 - 0.215 \]
\[ = 0.785 \]

Based on the calculation, the \( Q^2 \) value obtained is 0.785 which showed that the created model is good.

3.2 Hypotheses testing

The assessment to the inner weight can be conducted by seeing the correlation between latent construct by paying attention to the path parameter coefficient estimation result and the
significance level. Inner weight also showed the hypotheses testing results. To test the proposed hypotheses, we can see the t-statistic value. If the t statistic value > t table, then the hypothesis will be accepted. The t-statistic estimation results can be seen in the result for inner weight presented in Table 3.

<table>
<thead>
<tr>
<th>Table 3. Path Coefficients (Mean, STDEV, T-Values)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Democratic Adjustments</strong> (%)</td>
</tr>
<tr>
<td>Democratic Adjustments</td>
</tr>
<tr>
<td>Authoritarian Adjustments</td>
</tr>
<tr>
<td>Permissive Adjustments</td>
</tr>
</tbody>
</table>

Based on the Table 3, the testing to the research hypotheses can be conducted. The hypotheses testing used 5% significance level with t table of 1.990 (N=80).

**H1: The Effect of Authoritarian Parenting Style to the Social Adjustment**

The parameter coefficient test results between authoritarian parenting style with the social adjustment showed the coefficient value of 0.222 and t count value of 2.685. In the significance level (α) = 0.05, the t count value is higher compared to the t table of 1.990. This showed that the authoritarian parenting style has an effect to the social adjustment.

**H2: The Effect of Democratic Parenting Style to the Social Adjustment**

The parameter coefficient test results between democratic parenting style with the social adjustment showed the coefficient value of 0.577 and t count value of 8.043. In the significance level (α) = 0.05, the t count value is higher compared to the t table of 1.990. This showed that the democratic parenting style has an effect to the social adjustment.

**H3: The Effect of Permissive Parenting Style to the Social Adjustment**

The parameter coefficient test results between permissive parenting style with the social adjustment showed the coefficient value of 0.816 and t count value of 2.297. In the significance level (α) = 0.05, the t count value is higher compared to the t table of 1.990. This showed that the permissive parenting style has an effect to the social adjustment.

**Effective Contribution (EC) dan Relative Contribution (RC)**

Effective Contribution = coefficient value*correlation coefficient*100%
Relative Contribution = (Effective Contribution/Total Effective Contribution) *100%
Table 4. Effective Contribution (EC) dan Relative Contribution (RC)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient Value (Original Sample)</th>
<th>Correlation Coefficient</th>
<th>EC</th>
<th>RC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Democratic -&gt; Social Adjustment</td>
<td>0.577</td>
<td>0.843</td>
<td>48.6%</td>
<td>62.0%</td>
</tr>
<tr>
<td>Authoritarian -&gt; Social Adjustment</td>
<td>0.222</td>
<td>0.722</td>
<td>16.1%</td>
<td>20.4%</td>
</tr>
<tr>
<td>Permissive -&gt; Social Adjustment</td>
<td>0.186</td>
<td>0.740</td>
<td>13.8%</td>
<td>17.6%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>78.5%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 4 showed that the effective contribution of democratic (parenting style) variable to the social adjustment is 48.6%, whereas for the authoritarian (parenting style) variable to the social adjustment is 16.1%, and the permissive (parenting style) variable to the social adjustment is 13.8%. This means that the most influential variable to the social adjustment is the democratic (parenting style) variable, then authoritarian and the last is permissive.

Table 5. T-Test Independent Sample t-test Results (Social Adjustment Variable Based On gender)

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Adjustment</td>
<td>Girls</td>
<td>40</td>
<td>5.6500</td>
<td>.48305</td>
</tr>
<tr>
<td>Social Adjustment</td>
<td>Boys</td>
<td>40</td>
<td>4.0000</td>
<td>.75107</td>
</tr>
</tbody>
</table>

Based on Table 5 the average value of social adjustment from the male gender is 4.000 and the average value of social adjustment from the female gender is 5.650 with the obtained sig value of 0.000 and t_count score of 11.686. The t_count score for df=78 and significance level of 5% is 1.991. Because the obtained sig value is smaller than 0.05 (p<0.05) and the t_count score > t_table, it can be concluded that there is a difference in the average value of social adjustment based on gender with the average value of social adjustment of girls is higher than the boys.

3.3 Discussion

The research result shows that parenting rearing consisting of democratic, authoritarian, and permissive parenting together has an influence on children’s social adjustment. This result is consistent with Baumrid’s statement (1971, 1989, 1991); Steinberg, Dornbusch, & Brown...
that parenting rearing provides children with basic experience to optimally balance to choose (marked with self-assertion, independence, and wisely personal interest) with partnership (marked with social engagement, cooperation and moral concern for another person interest) [16]. The results of the research parallel with the results of research by Noorjanah [23] and Ahmad, et al. [24], shows a positive relationship between parenting styles and students' social adjustment. The results of the study are also in line with the research of Domitrovic, and Bierman [25], who found parenting practices are related to social behavior reported by peers, peer dislike, and children's social problem-solving. Children's perceptions of their parenting experiences are linked to solving social problems and their social pressures. These findings are related to the importance of the family and peer domains for children's social development and the influence of children's perceptions on psychological well-being. There is a difference in the social adjustment ability of girls and boys as shown by the t value of 11.686 with sig p <0.05 and the social adjustment ability of girls is higher than that of girls as shown by the mean value of adjustment for girls' social adjustment of 5.650, while the average for boys is 4.00. Research by Scharf, Wiseman, and Farah [26] found that gender had significantly the parenting group, girls in the violent parenting group showed greater parental loneliness and affinity for loneliness, while boys- men show more loneliness regarding their peers.

The authoritarian parenting style has an effect to the child’s social adjustment showed by the t value of 2.685 (p<0.05); The democratic parenting style has an effect to the child’s social adjustment by 8.043 (p<0.05), whereas the permissive parenting style has an effect to the child’s social adjustment by 1.990 (p<0.05). The effective contribution of democratic parenting style to the child’s adjustment is the highest compared to the authoritarian and permissive parenting style (The effective contribution of democratic parenting style: 48,6%, authoritarian parenting style 16,1%, and permissive parenting style 13,8%).

From the data analysis results showed that the democratic parenting style has the highest effect on the child’s social adjustment then followed with authoritarian parenting style and the last is the effect of permissive parenting style. The results are not much different from the results of other research that discussed about the parenting style with social adjustment such as. The research results by Indah obtained that the democratic parenting style is 33 (82,5%) people, the permissive parenting style is 7 (17,5%) people and none of the parents have authoritarian parenting style [22]. Parents that have independent child 32 (80,0%) people, and parents that have less independent child is 8 (20,0%) people. There is a significant correlation between parenting style and child’s independence. Moreover, Research results by Ela (2013) obtained that the parenting style is 31 (77,5%) people in the democratic category, whereas for the toilet learning success of toddler age children in the success category is 31 (77,5%) people [21]. According to Baumrind, authoritative parenting, provides a warm atmosphere to children, the attitude of parents can firmly and optimally control children's behavior. This parenting can guide and support prosocial and adaptive behavior in children. (Baumrind, 1991). Enforcement with a high authoritarian level, high discipline implementation will also affect the low level of empathy and high guilt in children [17].

There is a difference in the girls and boy’s social adjustment ability as showed by the t value of 11,686 with sig p <0.05 and the girls social adjustment ability is higher than the boys as showed by the average value of girl’s social adjustment is 5,650, whereas the boys average is 4.00. According to Skaalvik & Skaalvik [18]; there are sex differences between girls and boys in academic and social adjustment. Meanwhile, according to Graham et.al. [19], boys are more prominent in their aggressive behavior for school dropouts. Lopaz and DuBois [20] girls are greater in social acceptance than boys.
4 Conclusions

Based on the description and data analysis above, it can be concluded that the early childhood social adjustment especially in schools is affected by the parenting style and gender. The democratic parenting style has the greatest contribution in the child’s social adjustment, followed by authoritarian and permissive parenting style.

Girls have higher social adjustment than boys. The educators in the Early Childhood Education (ECE) Institution have to give stimulation to the social-emotional development aspect of children maximally that will be a provision in treading life in the future. Parents should be able to implement parent rearing that can form child’s character, so child can socially adapt to the environment. Democratic parenting has high effect to the children social adjustment, followed by authoritarian parenting and lastly permissive parenting.

Acknowledgment

The author would like to thank the Management of Early Childhood Education Institute, Headmaster, Teachers/Educators, Parents, all teams of data collector which I cannot mention one by one, who have participated and facilitated for the continuity in the research process.

References


Optimization of Expert System for Agriculture Development of Zalacca Tree in Srumbung: A Literature Study

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Abstract. The people of Srumbung need knowledge in determining the suitability of land for planting salak plants. This is due to the lack of information on determining the suitability of land for planting salak plants and the limited knowledge of the Srumbung community. So, we need a system that can help the community in determining the land for the development of zalacca plants. In this research, an expert system will be built that can help determine the suitability of land for zalacca plants. The method used is literature study, namely by analyzing the literature that has been selected from various sources through an online database. Based on the results of a review of several literature, it was found that an expert system of land adjustment for zalacca plants. The development of this expert system is expected to be a solution to community problems in determining the land to be used for planting zalacca.

Keywords: Expert system, land suitability, salak plants

1 Introduction

Zalacca plants are native to Indonesia, which are scattered in several provinces such as DKI Jakarta, West Java, Yogyakarta, East Java, North Sumatra, Maluku, Bali, NTB and Central Java. This plant is popular with Indonesians because the zalacca plant is a fruit commodity have good prospects to be cultivated. Zalacca cultivation in Central Java has been developed in Srumbung District, Magelang Regency.

Srumbung District is a strategic area with lowland to highland topography. Geographically, this district is located on the slopes of Mount Merapi so that it supports the cultivation of salak because the soil conditions contain lots of organic matter, are able to store water but are not easily flooded and the soil acidity level is neutral. Salak trees are suitable for planting with a soil height of 0-700 meters above sea level with a tolerance for increasing altitude of up to 200 meters above sea level, if planted at an altitude above 900 meters above sea level, then the barking plant will be difficult to bear fruit.

Srumbung district has a land area of 2,337 m² and 1000 m² of land area used for the development of salak plants with an altitude of 501 masl. Most of the people work as salak farmers who develop salak pondoh and honey salak as superior products. Salak honey is one of the fruits with high productivity, good quality, thick flesh with a soft texture and sweet taste. Likewise, with the salak pondoh plant which is one of the cultivars developed in the 1980s. Salak pondoh is characterized by sweet, crunchy, and not as healthy flesh as when it was young.
Based on this, more people of srumbung plant salak pondoh because it has better quality so that the level of sale is relatively higher than that of honey zalacca.

However, there are several criteria for land that can be planted with salak trees in Srumbung District, so it needs a land suitability analysis that can help the Srumbung community to determine suitable land for the development of salak plants. The analysis of this research will determine the level of soil pH, soil moisture and soil height in accordance with the suitability of the land for the development of salak plants.

Research conducted [1] related to soil with land suitability for salak plants aims to evaluate quantitatively and qualitatively the soil used for planting salak trees. The data collection process was carried out by interviewing and observing the salak tree growers and developers. Respondent farmers were randomly assigned, in addition to conducting interviews and discussions with agricultural officers. In determining land suitability, data from experts is also needed as material for calculating land adjustment. Therefore, this literature study provides an overview of land suitability analysis to make it easier for salak farmers to determine the land for planting salak plants in order to obtain good results.

2 Method

Method used in writing this research is literature study. This study is the result of an analysis of the literature related to land suitability expert systems in plants. This method is used to collect data from various sources through online databases such as google scholar in the form of journals and articles at national seminars, ranging from 2000-2020 as many as 9 journals. The data obtained is then processed as research material [2]. The articles used in this research are articles that discuss "expert systems", "salak", "land", "land suitability" and also the methods used in making expert systems.

3 Results and Discussion

The analysis carried out in 15 journals showed 3 journals about expert systems for disease detection in animals, 10 journals on expert systems for land suitability for plants and 1 journal on the effectiveness of using methods forward chaining and backward chaining in making expert systems and 1 journal about expert systems for controllers’ gas. The method used in these research journals is dominated by using the forward chaining method and others using the method backward chaining.

The method forward chaining will work best when pooling information and then looking for conclusions drawn from the information that has been collected. This allows the system not to recognize some facts that are more important than others. Meanwhile, the backward chaining method provides a more accurate diagnosis because it aims to guide decisions based on reasoning. However, this method is less efficient when applied in the system, because if the rules are not met, the hypothesis cannot be determined.

Expert systems that have been created provide accuracy results ranging from 70-85% accurate. This shows that the expert system is suitable for community use. The results of the expert system can help the community to determine which plants to plant and on suitable land. The suitability of the land to its crops will also provide better crop yields with better product quality.
The weakness of this expert system is the use of few parameters of comparison so that it can affect the accuracy of the results of the expert system. The test data used in the Bayes method shows some data that cannot be tolerated so that it gives less than optimal results. Then the selection of methods must be tailored to the system requirements and the targets to be achieved. Table 1 show the details of the journal results of the main choice for literature study.

Table 1. Details of the journal results of the main choice for literature study.

<table>
<thead>
<tr>
<th>No</th>
<th>Author / Years</th>
<th>Research Objectives Research</th>
<th>Methods</th>
<th>Strengths</th>
<th>Weaknesses</th>
<th>Research Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Yuli Syafitri / 2020 [3]</td>
<td>Early detection of disease in broiler chickens is done with an expert system that can find out the symptoms and how to treat diseases that occur in chickens</td>
<td>Certainty Factor</td>
<td>The community can find solutions to diseases that attack chicken livestock and can find out how to raise chickens properly.</td>
<td>The rules used in the system are general rules in the forward chaining method, no rules from the expert system have been implemented yet.</td>
<td>Broiler Chicken Disease Diagnosis Expert System</td>
</tr>
<tr>
<td>2.</td>
<td>Khanan, Sri Kusumadewi, Intan Ruspita / 2020 [4]</td>
<td>The process of determining drugs for dental and oral diseases is not done manually, this process will be taken over by an expert system, so that the drug will be automatically determined by the system.</td>
<td>Backward Chaining</td>
<td>Data for disease diagnosis and medicine are made in detail. The test results are 75% accurate.</td>
<td>In this study, the user input the data consultation separately from the data input medical record. Integration of expert systems required with dental electronic medical records is.</td>
<td>Expert system application for drug selection for patients with dental and oral diseases</td>
</tr>
<tr>
<td>3.</td>
<td>Irvan Muzakkir and Marniyati Husain Botuthe / 2020 [5]</td>
<td>Makes it easy for breeders to diagnose diseases in cows based on symptoms that occur</td>
<td>Case Based Reasoning Method</td>
<td>Calculation results from the CBR method get good results. well. The system logic flow is also very detailed, so that it has a good impact on the CBR calculation results.</td>
<td>The data is only obtained from the problems suffered by the cows, the influence of the environment and the food provided by the cows have not been included in the data for this case calculation.</td>
<td>The results of the diagnosis analysis of the symptoms of the disease suffered by cows</td>
</tr>
<tr>
<td>4.</td>
<td>Heliza Rahmania Hatta</td>
<td>Providing information to farmers to support systems to</td>
<td>The Forward Rule in the expert system is made per application of rules in the system has not</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Author / Years</td>
<td>Research Objectives</td>
<td>Methods</td>
<td>Strengths</td>
<td>Weaknesses</td>
<td>Research Results</td>
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</tr>
<tr>
<td>Septya Maharani, Zainal Arifin, Malik Annisa, Muhammad Rivani Ibrahim, Ramaulvi Muhammad Akhyar / 2017 [6]</td>
<td>determine suitable crops on dry land with decision support system tools</td>
<td>Chaining method</td>
<td>plant with detailed information so that high yield accuracy will be obtained. The tools used in data collection do not yet have a detection area coverage. Another detection tool is needed that can measure the soil water content or other factors that can determine soil fertility.</td>
<td>been tested on land suitability applications</td>
<td>determine suitable types of agricultural plants on dry land</td>
<td></td>
</tr>
<tr>
<td>Ira Zulfa, Richa Septima, Irwin Syah / 2020 [7]</td>
<td>to Determine Soil Fertility Levels in Coffee Plants.</td>
<td>Fuzzy Logic</td>
<td>data retrieval using soil moisture detection tools that are taken coherently based on a certain distance ratio. The data taken then becomes one of the parameters for determining soil fertility, the tools used in data collection do not yet have a detection area coverage. Another detection tool is needed that can measure the soil water content or other factors that can determine soil fertility.</td>
<td>Expert System To Know Soil Fertility Levels In Coffee Plants.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fitriana Susanti, Sri Winiarti / 2013 [8]</td>
<td>system is designed to determine the land for planting fruits based on the suitability of plant needs.</td>
<td>Forward chaining method</td>
<td>with this system, we will find out what diseases attack fruit plants and know how to plant fruit according to the diagnostic results of applying the rules in the new system, tested 1x, so the results are less accurate</td>
<td>Expert system for determining land suitability for fruit plant cultivation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yusuf Priyandari, Roni Zakaria, Abdan Syakura / 2017 [9]</td>
<td>developed a recommendation system for oil palm fertilization based on the facts gathered</td>
<td>Forward Chaining Method</td>
<td>Applications made using VBA in the spreadsheet application can help managers oil palm plantation to find fertilization recommendation</td>
<td>VBA application on a spreadsheet that can help managers oil palm plantation to find fertilizer recommendation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>Author / Years</td>
<td>Research Objectives</td>
<td>Methods</td>
<td>Strengths</td>
<td>Weaknesses</td>
<td>Research Results</td>
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<td>------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>8</td>
<td>Nina Sevani, Marimin, Heru Sukoco / 2009 [10]</td>
<td>determines the land suitability of food crops and is carried out through the determination of expert system that can be accessed online.</td>
<td>Forward Chaining</td>
<td>in this system when testing with the parameter value that exceeds the value determined by the experts, the system will immediately give the conclusion that the land is not suitable for food crops for the parameters used are still lacking, so the result is still less accurate.</td>
<td>System for Marihat plants.</td>
<td>System expert determination suitability of land for food crops.</td>
</tr>
<tr>
<td>9</td>
<td>Ibnu Akil / 2017 [11]</td>
<td>analyzes the suitability of forward chaining and backward chaining methods in designing expert systems</td>
<td>Forward Chaining and Backward Chaining</td>
<td>methods can compare two methods simultaneously. Direct data trial results are still less specific, so the results are less accurate.</td>
<td>Analysis of the effectiveness of the two methods in their use in expert systems.</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Aseh Egasari, Diyah Puspitaningrum, Priyono Prawito / 2017 [2]</td>
<td>assists farmers in determining suitable land for plantation crops using the expert system Bayes Method and Forward Chaining Inference</td>
<td>Bayes Method and Forward Chaining Inference</td>
<td>accuracy of system testing with the calculation method reaches 75%. can be developed with other calculation methods such as fuzzy which can tolerate some data that is considered inaccurate in the Bayes method. This expert system is not functioning in some fields, the decision support system should be an alternative for farmers to determine the land.</td>
<td>The method used is the expert system for identification of land suitability for plantation crops.</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Gilar Hadimuly / 2017</td>
<td>mapped the geographic area</td>
<td>The results of the research are only based on a Geographic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>Author / Years</td>
<td>Research Objectives</td>
<td>Research Methods</td>
<td>Strengths</td>
<td>Weaknesses</td>
<td>Research Results</td>
</tr>
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<tr>
<td>al, Sophia Dwiratna, and Kharistya Amaru / 2015 [12]</td>
<td>of the region according to the needs of the Salak slebong plant</td>
<td>Informatio n System.</td>
<td>precise and detailed which is presented using geographic information. The location survey conducted by researchers, data collection does not use soil texture detection tools, temperature or other parameters used in research, so that the accuracy of the data can easily change</td>
<td>al Informatio n System for areas with the needs of slebong zalacca plants.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Romy Aulia / 2018 [13]</td>
<td>provides information on land suitability with fruit plants that can make it easier for farmers to determine the types of plants to be developed.</td>
<td>Forward Chaining</td>
<td>data used are complete and the rules are made in the system is sufficient to make a decision so that in the form of a decision tree some plants are classified into one type, for example bananas with rambutan are made into one category. It is necessary to reassess the land suitability data for plants that are categorized as the same in this study.</td>
<td>Expert system Determination of tropical fruit planting areas.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R. Nouriana, S. Meysam Mousavib, S. Raissia / 2019 [14]</td>
<td>This research aims to develop a new fuzzy hybrid expert system as a support system decisions to mitigate risks associated with gas transmission stations. Knowledge-based systems designed to incorporate procedural and descriptive rules based on expert judgment to analyze complex relationships between various components of a gas transmission system, for example a regulator</td>
<td>Fuzzy Logic</td>
<td>Based on our knowledge, this is the first research to design and implement ES fuzzy for natural gas pressure reduction stations. The majority of previous research has focused only on certain components of a gas transmission system, for example a regulator or other parameters used in research, so that the accuracy of the data can easily change</td>
<td>a new fuzzy hybrid expert system as a support system decisions to mitigate risks associated with gas transmission stations. The Future studies may discuss fuzzy development ES for more effective control of the other sub-components of CGS. ES designed basic features can be integrated with statistical process control techniques to find more realistic solutions for safety issues. Another area of future research will be</td>
<td></td>
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</table>
The analysis carried out in 15 journals showed 3 journals about expert systems for disease detection in animals, 10 journals on expert systems for land suitability for plants and 1 journal on the effectiveness of using methods forward chaining and backward chaining in making expert

<table>
<thead>
<tr>
<th>Author / Years</th>
<th>Research Objectives</th>
<th>Methods</th>
<th>Strengths</th>
<th>Weaknesses</th>
<th>Research Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Budi Dwi Hartanto, Ketut Sumantra Cokorda Javandira / 2017 [15]</td>
<td>provides an overview of the location of zalacca development by prioritizing the bestland for the type of sugar salak plant.</td>
<td>Scoring</td>
<td>The results obtained from precise and detailed research are presented using geographic information.</td>
<td>This research has not studied the value of land clearing, such as socio-culture, politics and local policies that could be a determining factor for land suitability based on geographic information</td>
<td>Geographic info on the suitability of Salak Gulapasi plantations</td>
</tr>
<tr>
<td>Reza Adelia, Nyoman Dibia Made Mega / 2016 [16]</td>
<td>provides geographic information on areas with suitable land suitability for horticultural crops equipped with limiting factors for the development of plant species.</td>
<td>land suitability evaluation survey method</td>
<td>The results of the study are precise and detailed and are presented using information on land quality</td>
<td>This research only examines a few fruit plants, Suitability of Horticultural and Plantation Plant Land.</td>
<td></td>
</tr>
</tbody>
</table>
systems and 1 journal about expert systems for controllers’ gas. The method used in these research journals is dominated by using the forward chaining method and others using the method backward chaining.

The method forward chaining will work best when pooling information and then looking for conclusions drawn from the information that has been collected. This allows the system not to recognize some facts that are more important than others. Meanwhile, the backward chaining method provides a more accurate diagnosis because it aims to guide decisions based on reasoning. However, this method is less efficient when applied in the system, because if the rules are not met, the hypothesis cannot be determined.

4 Conclusion

Overall, the expert system is able to solve problems in land adjustment and make decisions. The expert system of land adjustment obtained in the journal review is a form of development of an expert system conceptualized to determine the suitability of land to certain plants. The need for plant growth will be adjusted to the availability of soil elements in the area. This land suitability expert system is then applied to the people in Srumbung who work as salak farmers. The system developed is able to assist farmers in determining the land for the development of zalacca plants. The community will certainly find it easier to diagnose suitable land and will get better results. Suggestions for further researchers are to maximize the use of expert systems to help solve problems related to decision making or solutions in determining decisions.

References


The Empowerment of Home Assimilation Reporting Supervision System Application (Sappar) for Correctional Assisted of Child Prisoners Residents

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Faculty of Psychology, Bhayangkara Jakarta Raya University, 17143, Indonesia²
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Faculty of Engineering, Universitas Islam 45 Bekasi, 17113, Indonesia⁶

Abstract. One of the issues in the COVID-19 pandemic is the liberation of prisoners in order to control the spread of the COVID-19 by rescuing the child prisoners through the program of assimilation and integration. This program is under the supervision of the advisor community using the SAPPAR application (System Application for Monitoring and Reporting of the House Assimilation) which has been disseminated by the local office (Kanwil) of ministry of law and human rights (Kemenkumham) in West Java, Indonesia. This study aims to determine the effectiveness of SAPPAR as an assimilation program of the correctional inmates (WBP). This application is used to facilitate the monitoring and supervision of children inmates while performing assimilation in their house. The study of sociological law (socio legal research) was conducted to describe the phenomena of assimilation program during the COVID-19 pandemic for the correctional child prisoners. A qualitative approach and descriptive data analysis were conducted. The study focuses on legal analysis and psychological behavior of the child prisoners during assimilation as well as community behavior analysis when receiving prisoners back to their environment, the interaction between children, and the community assistance.

Keywords: Assimilation, children of assisted residents, SAPPAR applications

1 Introduction

The COVID-19 pandemic has disrupted daily life of people in the world. The World Health Organization (WHO) reports that there have been 44,351,506 confirmed cases of COVID-19, including 1,171,255 deaths [1]. In Indonesia, data gathered on 29 October 2020 showed about 404,048 COVID-19 cases, with 329,778 people were recovered and 13,701 people died [2]-[4].

One issue in this current COVID-19 pandemic situation is the release of prisoners from prisons and detention centers due to overpopulation [5-6]. At the beginning of March 2020, the occupancy rate of correctional institutions and detainees in Indonesia reached 268,919 people, the over-crowded condition of Indonesia's LAPAS reached 102% (ranging from 2-253%) [7].

Overcrowded, congested and cramped are a main problem on most prisons [8]. In some prisons, overcrowding is so acute that prisoners were forced to sleep in shifts. Based on these
conditions, the release of prisoners should be carried out because prisons have a high risk of COVID-19 infection [15].

The Indonesian government finally issued a regulation through the Ministry of Law and Human Rights Number M.HH-19.PK/01.04.04 concerning the release and the freeing of prisoners as well as child prisoners through assimilation and integration in regard to prevent and combat the spread of COVID-19. Child prisoners still have the right to legal protection [9–11]. Therefore, children having met the requirements can obtain the right of assimilation and integration [12].

This research was conducted at the penitentiary (LAPAS) in West Java province, Indonesia. Child prisoners, actually, should be placed in the correctional facility for children (LPKA), however, due to the full capacity of the LPKA, the child prisoners are incarcerated in original prisons and join with adult prisoners. There are show in Table 1.

Table 1. The number of child prisoners in West Java is presented in.

<table>
<thead>
<tr>
<th>Local Office</th>
<th>Period</th>
<th>Detainee</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>AL</td>
<td>AP</td>
<td>AL</td>
<td>AP</td>
<td>AL</td>
<td>AP</td>
<td></td>
</tr>
<tr>
<td>West Java</td>
<td>Januari</td>
<td>37</td>
<td>1</td>
<td>107</td>
<td>1</td>
<td>107</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>February</td>
<td>54</td>
<td>0</td>
<td>92</td>
<td>2</td>
<td>92</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>March</td>
<td>59</td>
<td>0</td>
<td>77</td>
<td>2</td>
<td>77</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>April</td>
<td>29</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>May</td>
<td>30</td>
<td>0</td>
<td>75</td>
<td>1</td>
<td>75</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>June</td>
<td>31</td>
<td>0</td>
<td>70</td>
<td>1</td>
<td>70</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

Table 1 shows that the number of child prisoners and child prisoners is still quite high. Therefore, the West Java LAPAS officers must think about the best efforts for correctional facility for child prisoner, in particular to avoid the spread of COVID-19.

To support the home assimilation program, the West Java Ministry of Law and Human Rights Regional Office launched the Home Assimilation Reporting Application System (SAPPAR). The launch of the SAPPAR application is a strategy for monitoring prisoners and child inmates undergoing a home assimilation program. The SAPPAR application is expected to help carry out the duties and roles of community guidance. In addition, this application is also expected to support the guiding and monitoring assimilated prisoners to avoid repeat criminal offenses (recidivism), obey the law and have an independent life when they return to society.

This paper raises the issue of whether the SAPPAR application can improve the compliance of child prisoners in reporting their condition when home assimilation.

2 Method

The method used in this study is socio-legal with a qualitative approach. According to Wheeler and Thomas in Banakar and Travers’ book, social-legal studies is used as an interdisciplinary alternative and challenges to legal doctrinal studies [13]. 'Socio' in socio-legal studies does not refer to sociology or social science, but represents 'the interface with the context in which the law exists'. That is why, when socio-legal researchers use social theory for analytical purposes, they often tend not to address sociological or other social science issues, but legal issues and legal studies.
Child-prisoners reporting is a form of compliance that is expected by the community supervisor. Legal studies on compliance are carried out through a qualitative and descriptive data analysis approach and focus on the legal analysis and psychological behavior of prisoners undergoing home assimilation through the SAPPAR application.

3 Results and Discussion

The opportunity to assimilate is a basic principle that must be carried out to help prisoners re-socialize with the community. The thing that is most feared by a prisoner is the labeling given by the community. Negative sentiment as a prisoner will interfere the security and they tend to repeat the mistake as well as interfere the mental development of child prisoners. Child prisoners have to work hard to readjust into society and survive outside prisons. The child prisoners need mental and spiritual readiness to be accepted back by society. If they are not ready, as a result, child prisoners will commit violations and do not comply with the rules set during the assimilation process.

In the behaviorist theory, there is an incapacitation theory where punishment must be carried out so that the perpetrator does not repeat the crime and a rehabilitation theory where punishment is carried out to facilitate rehabilitation of the perpetrator. This means that this theory focuses on the behavior of the criminal offender. When the assimilation program is carried out, it means that the behavior of child prisoners has received approval from bureau of correctional facility (BAPAS) whether it is appropriate and complies with the rules.

3.1 SAPPAR Workflow

The assimilation and integration policies during the COVID-19 pandemic must of course be supported by adequate surveillance devices and trained human resources in handling child prisoners. Supervision of house assimilation through the SAPPAR application can currently be accessed by two types of users, namely Community Advisors (PK) and Community Assisted Citizens (WBP). Figure 1 shows the SAPPAR application workflow is outlined in.
PK will set a schedule for WBP to report its activities. Within one week, WBP must make activity reports at least three times a week through the SAPPAR application. The report from WBP contains photos, descriptions, and the actual location of the WBP. Therefore, WBP will completely read the report. The SAPPAR application is also equipped with a reminder feature that can be set by the PK on the SAPPAR application backend. If the WBP does not report its activities, the WBP will be subject to sanctions.

3.2 Survey Result

Based on the survey, what a prisoner most afraid of is the negative sentiment given by the community. Negative sentiment of a prisoner invited a prisoner tends to repeat the crime. Also, this labeling will interfere with the mental development of child prisoners. Child prisoners have to work hard to readjust into society and survive outside prisons. It takes mental and spiritual readiness for a child prisoner to be accepted back by society. If they are not ready, as a result, child prisoners will commit violations and do not comply with the rules set during the assimilation process.

Monitoring of house assimilation through the SAPPAR application is currently accessible to 2 (two) types of users, namely Community Guidance (PK) and Community Assisted Citizens (WBP). Table 2 shows that there are three social controls for child assimilation program, namely: attachment, commitment, and involvement. Parents is the most attachment factor.
Table 2. Social Control of the children of Prisoners.

<table>
<thead>
<tr>
<th>Attachment Factor</th>
<th>Survey Result</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Parents</td>
</tr>
<tr>
<td>Relation to others</td>
<td>91% (20 people)</td>
</tr>
<tr>
<td>Understanding the rule</td>
<td>82% (18 people)</td>
</tr>
<tr>
<td>Doing the crime because of</td>
<td>9% (2 people)</td>
</tr>
<tr>
<td>the influence of others</td>
<td></td>
</tr>
<tr>
<td>Follow</td>
<td>27% (6 people)</td>
</tr>
<tr>
<td>Suggesting</td>
<td></td>
</tr>
<tr>
<td>Avoiding</td>
<td></td>
</tr>
</tbody>
</table>

Survey result shows that it can be explained that parents are the most influence factor of children behavior. This is because of the attachment of children to parents and more or less the cultivation of values from parents to children, but because this attachment is not positively developed so that in the end the children are more involved in activities with group friends or their games so that it eventually grows attachment. Referring to Hirschi’s social control theory, it is clear that deviant behavior increases when the child’s bond with the child weakens, resulting in a lack of peer supervision, good communication patterns and togetherness in warm and positive terms.

Table 3 shows that most child assimilation understand that an activity is a crime. Commitment is an element of social control that can influence children to do criminal acts. Based on survey results, it was found that more children knew enough and even knew about the rules. This is related to the criminal behavior they have committed; they understand that it is a violation of the law and can result in criminal sanctions. Unfortunately, even though they already understand the criminal act is still being committed, it is clear that their commitment to the rules and laws is classified as lacking.

Table 3. Commitment Factor

<table>
<thead>
<tr>
<th>Commitment Factor</th>
<th>Survey Result</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fully Understand</td>
</tr>
<tr>
<td>Understand that an attitude is a crime</td>
<td>41% (9 people)</td>
</tr>
<tr>
<td>Understand that an attitude is related to crime sentence</td>
<td>27% (6 people)</td>
</tr>
</tbody>
</table>

Table 4 shows the most child assimilation active in community as well as activity with parents and friends. Child prisoners are mostly active in participating in positive activities at school and also with family and friends. It means that each child as a criminal offender basically has a different level of activity and has the intention to join in good activities. However, most of them drop out of school and the lack of parents’ control. Hirschi explained that positive activities or activities can minimize children from committing criminal acts because there are no more institutions that supervise or help instill good values.
Table 4. Involvement Factor of Child Prisoners.

<table>
<thead>
<tr>
<th>Attitude</th>
<th>Survey Result</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Very Active</td>
</tr>
<tr>
<td>Involve in school and community activities</td>
<td>50% (11 people)</td>
</tr>
<tr>
<td>Involve in parent and friend activities</td>
<td>41% (9 people)</td>
</tr>
</tbody>
</table>

3.3 SAPPAR Performance

Based on the SAPPAR implementation analysis, several problems were found as follows. First, the application can only be accessed via smartphone with the Android’s operating system. Even though smartphone users with the Android operating system are widely used today, there is still a possibility that WBP does not have a smartphone that complies with the SAPPAR application specifications. Second, the application can only be accessed by using the Internet network (on the network). The internet network has indeed spread in many regions in Indonesia. However, many areas still have internet signal problem but WBP smartphones must be connected to the internet. Therefore, they must have internet quota or have to go to a Wi-fi access location. This internet quota or Wi-fi access certainly requires a fee and this must be taken into account, whether the WBP has the funds to buy the internet quota or not. Third, this application usage practices are vulnerable for being manipulated. Reporting WBP activities through SAPPAR activities is vulnerable to being manipulated because WBP may make false reports that are not according to their circumstances. For example, a WBP reports a certain activity but in fact he is doing other activities and the photos uploaded in the SAPPAR application are only taken for reporting purposes only. In addition, the location of the WBP is not detected in real-time so that the WBP may go past the predetermined parameters.

The compliance is a form of obedience to the law with different qualities for each child prisoner. Obedience characteristic shows that child prisoners will be afraid of the sanctions that will be imposed if they don’t report their condition. Obedience has the identification characteristic. It means that child prisoners will try to carry out the assimilation process as well as possible so that the report can be accepted by the social adviser. Obedience has also had internalization characteristic. It means that a child prisoner is obedient to report his condition because he understands that it is in accordance with the applicable legal rules. If these three characteristics are owned by child prisoners, then it can be ascertained that the SAPPAR application is very helpful in monitoring the assimilation process. On the other hand, if the non-compliance of child prisoners occurs due to difficulties in owning an Android smartphone and the cost to pay the quota, of course, the SAPPAR application cannot be used.

4 Conclusion

SAPPAR application as the child prisoner assimilation can be done optimally by taking into account the points as follows. The ability of child prisoners to provide smartphones with internet access. This situation happens usually because of economic problem (having no job). The compliance of child prisoners to report their condition during assimilation through the SAPPAR
application is a key factor that help community counselors in the assimilation process. To avoid manipulation of the use of the SAPPAR application it is recommended to use a special device on the child's smartphone. This is to ensure that the presence of child prisoners isn’t far from the established parameters.

References


The Impact of Celebrity Endorsement Approach to Halal Cosmetic Purchase: A Qualitative Study

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Universitas Muhammadiyah Surakarta, Indonesia¹,²

Abstract. This study intended to explain the impact of celebrity endorsement on the purchase of halal cosmetics. Researchers used this qualitative research type to find out more specifically about consumers’ beliefs, views, and opinions in purchasing halal cosmetic products. The approach used in this study is a Grounded theory, an analysis of a phenomenon that can explain the phenomenon specifically, from the phenomenon studied utilizing data collection by memoing against the beliefs, views, and ideologies of participants. This study interviewed as many as 12 respondents of halal cosmetic users with more than two years of use. This research indicated that Endorsement Celebrity endorsement has a significant impact on halal cosmetic purchasing decisions regarding external factors, including popularity and attractiveness. The number of social media followers and the ability to become a trendsetter become determining endorsers’ popularity. The attractiveness of endorsers also affects consumers of halal cosmetics in the form of curiosity about their beauty, good looking looks, and Islamic branding attached to her. Social media is an alternative that makes it easy for people to find all the information they want; nowadays, almost all use social media, both young and old. Therefore, celebrity endorsements and social media have a significant impact on marketing a product in order to overgrow.

Keywords: Celebrity endorsement, halal cosmetic products, purchasing decisions

1 Introduction

The cosmetic industry is currently proliferating. Cosmetics are used not for the body but outside the body to increase attractiveness is one example [1]. The increasing public interest has influenced it in the use of halal cosmetics [2]. A company also uses a marketing strategy that attracts potential consumers by choosing Celebrity Endorsement that attracts and reassures the public. The endorsement strategy is a marketing communication strategy using famous figures [2].

Nafi and Hasan [4] researched several variables focused on halal label perception, brand image, and celebrity endorsement influence. The results showed a positive and significant impact on purchasing decisions. Celebrity Endorsement had a positive and significant impact on purchasing decisions.

Aqmarina, Kumadji, and Kusumawati [5] researched several focused variables, namely the influence of celebrity endorsement and the impact on purchasing decisions. The method used by researchers is a quantitative method with a total of 116 respondents. The results in the study the reason for the decision to purchase variable celebrity endorsement is because celebrity endorsement is beautiful. Celebrities can also convince the quality of the product to consumers.
Celebrities can also convince against the benefits of the product to consumers, endorser has its uniqueness in marketing or advertising a product; consumers have the product needs as advertised by celebrity endorsement.

Fitri [6] found that products promoted through celebrity endorsement are not following sharia principles. The research method used by the authors is the Socio-Legal Research method because the author sees from the environment or social conditions of society, the extent to which the public knows about the foundation of the Law on Endorsement. As a result of the research that endorsement practices are still not under the fatwa of DSN MUI No. 24 of 2017, because there are still many prohibitions violated by an influencer. There are still many social media celebrities posting products with models that violate the sharia of Islam and do not comply with the established Fatwa DSN MUI, namely celebrities promoting pornographic objects.

This paper focused on knowing the direct impact of celebrity endorsement and other factors, namely external and internal factors, on the purchase of halal cosmetics.

2 Literature Review

2.1 Celebrity Endorsement

In recent time marketing activities offer a product or service using a celebrity or well-known figure as an endorser. Celebrities are the characters of advertising stars who significantly impact society, such as; actors, entertainers, or athletes [6]. Celebrity images for a consumer are positively affecting and can be measured based on the suitability and ability of celebrities to attract the attention of consumers. Each celebrity has many meanings, including status, class, and gender, age, as well as personality and lifestyle [9].

The way celebrities can influence consumers, and there are three things, namely; compliance, identification, and internalization [10]. Compliance can occur when an individual receives influence from another person or a group because he or she hopes to achieve a favourable reaction from them [11]. Identification can occur when an individual adopts behaviour that comes from another person or group. This behaviour is associated with satisfactory self-definition, the individual is tempted to be like everyone else, which makes the consumer think that if he or she buys the product, it will look like a celebrity. Internalization can occur because when an individual receives influence due to induced behaviour satisfied with its value [12].

Celebrities are used as advocates to make ads more trustworthy and make communication from ads more effective, and other signs of support that celebrities in ads are considered brand ambassadors. Support from celebrities to advertise or promote a product can make it easier for consumers to find what they need or want [13].

Endorsers are ad supporters or known as ad stars to support a product to be. The endorsement is where celebrities act as spokespersons and support the brand with all attributes of popularity, personality, and social status of the celebrity [14]. So this endorsement has an impact on the brand of the product and influences the community. However, that impact can be seen from the popularity, personality, and social status of the celebrity. This endorsement can be said to be a business for celebrities. Besides, being his profession as an actor, entertainer or athlete. Endorsement becomes a side job of the primary profession because it has an impact on the brand of products from the popularity of the celebrity. Endorsers play a central role in the
latter scheme by drawing consumer attention to itself and advertising. Later, the ad became both an image and brand endorser.

The main task of endorsers is to create a good association between endorsers and advertised products until a positive perception emerges from consumers, to create ads with the right image in the eyes of consumers [16]. Endorsement today we can feel its existence. Undeniably, with widespread promotion on social media, endorsements can be one of the advertising strategies that business people rely on through social media.

Celebrity endorsement is used to attract consumers and can increase product awareness [15]. The rise of celebrity endorsements can make an impression on selective consumers in choosing products with what a celebrity uses. The match-up theory which indicates a match between a celebrity endorser and a consumer must be a match between a celebrity and a product, which is to complement each other between celebrities, products, and advertisements. That results in celebrities being sought to influence consumers’ desire to buy. Celebrity endorsers should also be able to promote products that they support, especially in their fans.

Promotion is a marketing mix activity that has a significant impact, broadly the meaning of promotion is activities that are actively carried out by the company (seller) to encourage the interest of consumers to buy goods or products that it offers [17]. Brand Endorsements used to explain endorsements like variations such as endorser who says directly that the celebrity is advertising a product, endorser using an advertised product, and endorser that advises people or potential consumers to use.

Celebrity endorsement has four indicators, namely; trustworthiness, attractiveness, celebrity popularity, and skilled in promoting a product [7]. The popularity of celebrity is very influential in the sale. The well-known celebrities will be more comfortable for the public and have a significant impact on product sales. The latter point is that celebrities must be skilled in promoting a product such as introducing a product, explaining the product, convincing consumers, and making consumers believe in the quality of the product.

2.2 The Impact of Celebrity Endorsement on Interest in Buying Halal Cosmetics

The intense competition of businesses seeks to advance their business by expanding the business network over the internet as one of the most influential media at the moment [18]. Economic growth and technological development in Indonesia, making the internet one of the favourite media by the public. Because the internet has a massive impact on everything, entrepreneurs use social media to promote their products using celebrity endorsement services which have been presented at the first point of discussion.

Cosmetic is one of the purchases that emphasizes emotional closeness or emotional engagement so that the figure of the brand or brand ambassador on a cosmetic advertisement can influence the purchase decisions. The role of celebrity endorsement has to impact in communicating or introducing a product to the brand to the public. In contrast, halal perception in a cosmetic becomes stimulation for consumers to use the product. In this day and age, halal products are very much in demand, mostly cosmetic types, the more the times of society begin to be conscientious in consuming a product. This current lifestyle leads more towards religious and the rise of products labelled halal people prefer halal products.

A halal label is the inclusion of halal writing on the product packaging to indicate that the product is halal [21]. The label is obtained after obtaining a halal certificate. The certificate is a requirement to obtain permission to include halal labels on the packaging of products from an authorized government agency, another condition of halal that is following Islamic [6].
Purchase decision consists of 5 stages, namely; introduction, need, information search, alternative evaluation, purchasing decision, and post-purchase [8]. Customers will know the product from the search for information found on social media that has been celebrity endorsement revealed about the product, which in the end, the consumer decided to buy a product.

Buying interest as a consumer’s tendency to buy a brand or decide on a purchase that can be measured from the level of likelihood of the consumer making a purchase two factors affect internal and external factors. The internal factors are from the consumer in the form of motivation, perception, feelings and emotions. At the same time, external factors are from marketing business and socio-cultural factors [13].

Therefore, after some of the theories presented above, the correlation between celebrity endorsement and purchasing decisions is interconnected, because celebrity endorsements include supporting tools that influence consumers to make purchase decisions. Two internal and external factors are explained that from the internal impulses and outside influences make the consumer benchmark for purchasing decisions because of the encouragement of celebrity endorsement that explains a product that makes the consumer’s perception of the product needed or sought after and imaginable by consumers who are obsessed with the celebrity.

3 Method

This research used qualitative methods as well a library research as support for the analysis of research data. Researchers used the Grounded Theory research approach, which is an analysis of a phenomenon that can explain the phenomenon specifically, from the phenomenon studied utilizing data collection by memoing against the beliefs, views, and ideologies of participants. The subject in this study is consumers of halal cosmetic products who have been using the product for more than two years of use. Sampling is aimed at consumers of halal cosmetic products based on activeness as a research subject to make it easier for researchers to find respondents to interview. The reason for taking the research sample is because researchers need credible data directly from consumers who have been using halal cosmetic products for more than two years of use, this is based on awareness of internal and external factors in every consumer. The description of respondent data is illustrated in Table 1.

<table>
<thead>
<tr>
<th>No.</th>
<th>Gender</th>
<th>Age (year)</th>
<th>Job</th>
<th>Product User Length (year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Women</td>
<td>22</td>
<td>Coeds</td>
<td>± 3</td>
</tr>
<tr>
<td>2.</td>
<td>Women</td>
<td>22</td>
<td>Coeds</td>
<td>± 2</td>
</tr>
<tr>
<td>3.</td>
<td>Women</td>
<td>21</td>
<td>Coeds</td>
<td>± 4</td>
</tr>
<tr>
<td>4.</td>
<td>Women</td>
<td>22</td>
<td>Coeds</td>
<td>± 4</td>
</tr>
<tr>
<td>5.</td>
<td>Women</td>
<td>21</td>
<td>Coeds</td>
<td>± 5</td>
</tr>
<tr>
<td>6.</td>
<td>Women</td>
<td>23</td>
<td>Kindergarten Teacher</td>
<td>± 2</td>
</tr>
<tr>
<td>7.</td>
<td>Women</td>
<td>23</td>
<td>Broadcaster</td>
<td>± 4</td>
</tr>
<tr>
<td>8.</td>
<td>Women</td>
<td>24</td>
<td>Coeds</td>
<td>± 2</td>
</tr>
<tr>
<td>9.</td>
<td>Women</td>
<td>22</td>
<td>Coeds</td>
<td>± 2</td>
</tr>
<tr>
<td>10.</td>
<td>Women</td>
<td>22</td>
<td>Housewives</td>
<td>± 3</td>
</tr>
<tr>
<td>11.</td>
<td>Women</td>
<td>21</td>
<td>Coeds</td>
<td>± 3</td>
</tr>
<tr>
<td>12.</td>
<td>Women</td>
<td>22</td>
<td>Entrepreneurial</td>
<td>± 4</td>
</tr>
</tbody>
</table>
The reason why respondents were chosen is that respondents have been using halal products for more than two years. Besides, those who use halal products are on average students who are 20 years old – 25 years old, because the affordable price is pocketed and worth it at an affordable price, as for other professions that use because of the fit on the product. Researchers contacted respondents based on information that researchers got from the initial question of how long consumers wear halal products.

4 Results and Discussion

4.1 Impact of Celebrity Endorsement and Causative Factor in Halal Cosmetic Purchase Decisions

After conducting data analysis, this study summarizes the findings in Table 2. This summary categorized the findings into internal and external factors. Two kinds of factors are explained that from the internal impulses and outside influences make the consumer benchmark for purchasing decisions.

Table 2. Overview of the Impact of Celebrity Endorsement Halal Cosmetics Purchasing Decisions

<table>
<thead>
<tr>
<th>External Factors</th>
<th>Description</th>
<th>Internal Factors</th>
<th>Description</th>
</tr>
</thead>
</table>
| Popularity      | - Follow many followers.  
                 | - Can influence and give confidence to consumers. | Encouragement to use halal product | - Because it feels safe to use the product.  
                 |                         |                              | - As a Muslim prefers his obvious halal.  |
| Attractiveness  | - Curiosity celebrity beauty endorsers  
                 | - Good looking  
                 | - Islamic Branding | Affordable price | - Affordable by students and workers income |

Nowadays halal products are very much in demand mostly cosmetic types, the more the times of society begin to be conscientious in consuming a product, the lifestyle of the community is now more towards religious and the rise of halal products people prefer halal products. In addition to the low price and fit in the pocket of students from 12 respondents said not to worry about the ingredients used in the cosmetics. The purchase decision consists of 5 stages, namely; introduction, needs, information search, alternative evaluation, purchasing decisions, and post-purchase. Decisions can be measured from the level of likelihood of consumers making purchases. There are two affecting factors, namely; internal and external factors [12].

Celebrity Endorsement had a significant impact on purchasing decisions for consumers, out of 12 respondents mostly concluding that external factors of purchasing decisions on halal cosmetics influenced celebrity endorsement. The opinion of respondent H says:

“Celebrity endorsement can be said as a bridge or intermediary between products advertised with the public. Hence celebrity endorsement is mostly artists or public figures known by many people. Celebrity endorsement is very affecting purchasing decisions.”
The respondent’s statement shows that celebrity endorsement has four indicators, among others; trustworthiness, attractiveness, celebrity popularity, and skill in promoting a product. As respondent I said:

“In order for the product to be well known in society, then a celebrity must have a good popularity and have a large active follower. This makes the influence factor of the product famous in the community. However, celebrities must give confidence when reviewing a product such for example, understand in the world of skincare and makeup, not origin so as not to disappoint manufacturers or brands and consumers.”

Cosmetics is one of the purchases that emphasize emotional closeness or emotional engagement so that the figure of the brand or brand ambassador on a cosmetic advertisement can influence the purchase on the consumer. Therefore, consumers are most interested in what celebrity has said about the product or what is commonly called a product review. The celebrity has its appeal as an example; good looking or pretty. The psychological aspect sometimes influences purchasing decisions on consumers; when viewed psychologically, consumers do not realize it has been indirectly affected by the paras owned by the celebrity. Therefore, many people or people who want to know the beauty secrets of a celebrity when the celebrity promotes the product then indirectly a few per cent of consumers are thrilled and believe in the celebrity’s review of the product he promotes. Respondent A’s opinion of a student:

“There is a celebrity endorsement influence also to buy, when looking at celebrities we wonder if he wears what products can be beautiful? After learning he was using the product I consciously and unknowingly bought the product.”

The respondent’s statement above shows that indirectly interested in the beauty of a celebrity that can influence purchasing decisions. Reviews have given celebrities and beauty owned by the celebrity makes people interested in trying the product.

The theory of how celebrities can influence there are three things, namely; compliance, identification, and internalization. Compliance can occur when an individual receives influence from another person or a group because he or she hopes to achieve a favourable reaction from them. Identification can occur when an individual adopts behaviour that comes from another person or group. Since this behaviour is associated with a satisfactory self-definition, the individual is tempted to be like everyone else, which makes the consumer think that if he or she buys the product, it will look like a celebrity. Internalization can occur because when an individual receives influence due to induced behaviour satisfied with its value.

The theory is valid with what the researchers found, according to the opinion of the US respondents. Then celebrity endorsement has a significant influence on her beauty and trust. In addition, to the theory above that reinforces that about compliance when an individual receives influence from others, this influence aside from celebrities can be influenced themselves, as said by respondent V:

“Because of the influence of celebrity endorsement reviews, another factor that influenced me was the invitation and review of friends.”

Nowadays, it is straightforward to find information through social media; social media can be a potent and influential tool to connect with consumers. Social media is beneficial for consumers to know the review of a product from various celebrities that have different assumptions because it discusses a cosmetic product where everyone or human has a different type of skin. Consumers can know the reviews of several celebrities on social media. They seek information from a celebrity as well as the needs of the consumers.

Celebrity endorsements are used to attract consumers and can increase product awareness levels [3]. The rise of celebrity endorsements can make an impression on selective consumers in choosing products with what a celebrity uses. The match-up theory which indicates a match
between celebrity endorsement and the consumer must be a match between celebrity and product, which is meant to complement each other between celebrities, products and advertisements. That results in celebrities being sought to influence consumers’ desire to buy. Celebrity endorsement should also be able to promote the products it supports primarily in its fans.

Promotion is a marketing mix activity that has a significant impact, broadly the meaning of promotion is activities that are actively carried out by the company (seller) to encourage the interest of consumers to buy goods or products that it offers.

Today’s marketing strategy relies more on celebrity endorsement because it can be said that celebrity endorsement is a strategic thing to advertise a product. Because celebrities have more value and popularity towards marketing products, in addition to the reason celebrity endorsement is very suitable or appropriate as a marketing strategy of a product. Besides, celebrities have a visual appeal, many people know celebrities because of their popularity, and the social media that can be accessed by everyone and everyone to find needed information. Endorsements today can be felt in his presence. Undeniably, with widespread promotion on social media, endorsements can be one of the advertising strategies that business people rely on through social media.

Celebrity endorsements and social media have a significant impact on marketing a product to multiply. How smart to choose a celebrity who can be trusted and make promotions as attractive as possible so that consumers are more confident using the product. As AY respondents said:

“Yes it affects, if there is a new product in the review by trusted celebrity endorsement is also good, especially if it is explained in its ingredients also so I believe.”

Internal factors to the decision to purchase halal cosmetic products, the results of the interview are based on a heart encouragement that takes into account the safety of the composition or content of the cosmetic. Because of the cosmetic product is said to be halal has been tested the feasibility of consumption to obtain halal certification from MUI. This process aims to ensure the product does not contain Illegal elements, as in the theory of halalness of a product when consuming cosmetics is the same as consuming a food ingredient because cosmetics will absorb into the body. As respondent M said:

“During the use of halal products, so do not worry too much about the composition contained in this cosmetic. With halal certification, more believe that this skincare is safe to use and certainly tested quality.”

Therefore, the opinion of respondent M states that today’s consumers prefer halal products because cosmetics can be said to be consumed daily like food. In addition to the encouragement of faith or faith, adulthood is now because Islamic Branding is popular, so religious consumers who understand His prohibitions prefer to use products that are more obviously halal. Increasingly, halal products are growing, and people are starting to go religious, which is more aware of themselves to consume a product. Internal factors not only discuss the impulse of the heart or self-desire and the encouragement of faith that society is currently more towards religious, but some respondents say the price factor is worth it with the product obtained. The opinion of respondent A says:

“Desire in yourself because halal products are safe. Because as Muslims, we are required to use or choose halal products, and also those products are very friendly and affordable for students.”

The US respondent’s statement stated that they were also affected by halal labels because they had a construct of thinking that halal products were guaranteed the safety of the content in those products. Moreover, halal products are also more affordable among students.
Because almost all respondents are students, students prefer products that are worth it with the price offered, price comparison and quality being considered as a student, businessman, and worker. As if respondents said:

“The experience has no effect that gives rise to breakout continues its affordable price for the pockets of students, to be honest, the price is affordable, and there is no effect whatsoever on the face hence the repurchase. A good place to stay.”

5 Conclusion

Celebrity endorsement has a very significant impact on halal cosmetic purchasing decisions in terms of external factors, including popularity and attractiveness. The popularity of endorsers is also determined by the number of social media followers and the ability to become a trendsetter. The attractiveness of endorsers also affects consumers of halal cosmetics in the form of curiosity about beauty, good looking looks, as well as Islamic branding attached to her. Social media is an alternative that makes it easy for people to find all the information they want. Nowadays, almost all use social media, both young and old. Therefore, celebrity endorsement and social media have a significant impact on marketing a product in order to proliferate.

References

The Influence of the Adiwiyata Program on the Curriculum Policy in Basic Education

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⁴Yogyakarta State University⁴

Abstract. The purpose of this study was to determine the effect of curriculum constructs on the Adiwiyata program at the elementary level in order to increase students' knowledge and understanding of environmental themes in the 2013 curriculum, as well as environmentally friendly school services provided to Adiwiyata schools. The constructive theory paradigm is comprised of qualitative and quantitative approaches utilizing descriptive natural methods. This study surveyed 60 respondents with only a high school education. The results indicated a positive correlation between the systematic validity test and the reliable test and normality test, followed by the one-sample Kolmogorov-Smirnov test to determine the significance value. As a result, the Adiwiyata Program and Adiwiyata curriculum policies contribute to the development of sustainable education, particularly at the elementary level.

Keywords: Adiwiyata, curriculum policy, basic education

1 Introduction

The sustainable development program [1] has become a shared commitment and responsibility for the world community to save the earth from damage and destruction caused by development that does not pay attention to environmental sustainability[2][3]. One way to increase capacity in realizing this development is to support environmental protection programs to understand students through the world of education [4][5]. The Adiwiyata program is governed by Minister of Environment Regulation Number 5 of 2013, which establishes the following: 1) Adiwiyata schools are those that care about the environment and have an environmental culture; 2) the Adiwiyata program is one that works to establish such a school through the implementation of three educational, participatory, and sustainable principles. The Adiwiyata program participants must be followed by education, one of which is the primary education level; elementary school (SD) and madrasah Ibtaiyah (MI)[6]. However, schools and madrasahs have not implemented the basic principles of the Adiwiyata program both in the learning curriculum process and in student and teacher activities outside the learning process [4],[7]. This can be seen from the following problems: 1) the curriculum applied in MI / SD on the subject matter with the theme of the environment (LH) has not fully supported the vision, the mandatory mission to implement Adiwiyata school; 2) lack of availability of environmentally friendly supporting infrastructure, 3) lack of awareness of school members (students, teachers, employees, alumni, stakeholders, madrasah committees) in carrying out planned environmental protection and management activities for school residents. The research
objectives are: 1) increasing knowledge and understanding of thematic/environmental themes in the 2013 curriculum content; 2) improving environmentally-friendly school services; 3) increasing good cooperation to realize schools towards Adiwiyata jointly.

2 Literature Review

Adiwiyata is another name for eco-school, but it was more popular in Indonesia as Adiwiyata. Adiwiyata is an endeavor to create a good and ideal program or forum for the purpose of acquiring knowledge and various standards and ethics that can serve as a foundation for human beings in their pursuit of a prosperous life consistent with the ideals of sustainable development. The Adiwiyata program's objective is to develop school members who are responsible for environmental protection and management through sound school governance in order to promote sustainable development [8]. The Adiwiyata program's fundamental principles. The Adiwiyata program is based on two fundamental principles: a) Participatory: The school community is involved in all aspects of school management, including planning, implementation, and evaluation, according to assigned responsibilities and roles; and b) Continuous: All activities must be planned and executed in a systematic and comprehensive manner. The Ministry of Environment regulates the Adiwiyata program, which defines Adiwiyata schools as those that care about the environment and have an environmental culture, while the Adiwiyata program organizers range from Elementary School / Madrasah Ibtidiyah (SD/MI) to Senior High School / Madrasah Aliyah (SMA/MA) as public or private schools [6][9][10].

Environmental education is a description of students’ state of knowledge and attitudes to appreciate and understand the word ecosystem concept. When viewed from the cognitive aspect, environmental education means developing the understanding of the biosphere, namely the layer of the earth as the habitable space for humans and other living things. Lack of human knowledge about the concept of ecology will affect human behavior errors in the environment [11][12]. In 2006, the Ministry of Education and Culture in collaboration with the Minister of Environment established environment-based schools in Indonesia. In Indonesia, the eco-school program is called Adiwiyata, and it aims to develop school members who are responsible for protecting and preserving the environment through schools that promote sustainable development [13].

3 Method

This study uses a constructive paradigm with a qualitative approach, [14][15] descriptive narrative method of data collection techniques with literacy studies, interviews, and questionnaire distribution with the classification of 60 respondents head of MI / SD in Magelang Regency as presented in Table 1.
Table 1. The Numbers of Respondent Based on Status and Origin of School

<table>
<thead>
<tr>
<th>School</th>
<th>Principal/ Vice Principal</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private of MI</td>
<td>43</td>
<td>72</td>
</tr>
<tr>
<td>State of MI</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>Private of Elementary school</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>State of Elementary school</td>
<td>10</td>
<td>17</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>100</td>
</tr>
</tbody>
</table>

3 Results and Discussions

The purpose of this study was to determine the effect of curriculum construct [16] on the Adiwiyata level basic education program to increase knowledge and understanding of environmental themes in the national curriculum [17] in 2013, environmentally friendly school services to Adiwiyata schools. There are two purposes for the Adiwiyata school; 1) adopting an environmental management system as part of educational excellence, 2) changing how students perceive and interact with nature as a form of tolerance [18][19]. This research focuses on two variables: the dependent variable Adiwiyata program and the Adiwiyata curriculum policy's independent variable.

3.1 Validity test

Table 2. The result of validities test-X: Adiwiyata program

<table>
<thead>
<tr>
<th></th>
<th>Concept Adiwiyata program</th>
<th>Guidance program</th>
<th>Adiwiyata program</th>
<th>Learning output program</th>
<th>Vision, mission school</th>
<th>Budget program</th>
<th>Adiwiyata program</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1</td>
<td>Pearson Correlation</td>
<td>0.127</td>
<td>0.235</td>
<td>0.185</td>
<td>0.224</td>
<td>-0.041</td>
<td>0.471**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.332</td>
<td>0.071</td>
<td>0.157</td>
<td>0.085</td>
<td>0.755</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
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<td>60</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>X2</td>
<td>Pearson Correlation</td>
<td>0.127</td>
<td>0.174</td>
<td>0.165</td>
<td>0.100</td>
<td>0.220</td>
<td>0.526**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.332</td>
<td>0.182</td>
<td>0.207</td>
<td>0.447</td>
<td>0.091</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>X3</td>
<td>Pearson Correlation</td>
<td>0.235</td>
<td>0.174</td>
<td>0.718**</td>
<td>0.256*</td>
<td>0.187</td>
<td>0.715**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.071</td>
<td>0.182</td>
<td>0.000</td>
<td>0.049</td>
<td>0.151</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
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<td>60</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>X4</td>
<td>Pearson Correlation</td>
<td>0.185</td>
<td>0.165</td>
<td>0.718**</td>
<td>1</td>
<td>0.303*</td>
<td>0.444**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.157</td>
<td>0.207</td>
<td>0.000</td>
<td>0.019</td>
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<td>60</td>
</tr>
<tr>
<td>X5</td>
<td>Pearson Correlation</td>
<td>0.224</td>
<td>0.100</td>
<td>0.256*</td>
<td>0.303*</td>
<td>1</td>
<td>0.371**</td>
</tr>
<tr>
<td>----</td>
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<td>--------</td>
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</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.085</td>
<td>0.447</td>
<td>0.049</td>
<td>0.019</td>
<td>0.004</td>
<td>0.000</td>
</tr>
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<td>60</td>
<td>60</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>X6</td>
<td>Pearson Correlation</td>
<td>-0.041</td>
<td>0.220</td>
<td>0.187</td>
<td>0.444**</td>
<td>0.371**</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.755</td>
<td>0.091</td>
<td>0.151</td>
<td>0.000</td>
<td>0.004</td>
<td>0.000</td>
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<td></td>
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<td>60</td>
<td>60</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>X</td>
<td>Pearson Correlation</td>
<td>0.471**</td>
<td>0.526**</td>
<td>0.715**</td>
<td>0.769**</td>
<td>0.567**</td>
<td>0.595**</td>
</tr>
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<td></td>
<td>Sig. (2-tailed)</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
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<td>60</td>
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</tr>
</tbody>
</table>

**. Correlation is statistically significant at the 0.01 (2-tailed) level.
*. Correlation is statistically significant at the 0.05 level (2-tailed).

Table 3. The result of validities test-Y: Adiwiyata curriculum policy

<table>
<thead>
<tr>
<th>Y1</th>
<th>Pearson Correlation 1</th>
<th>0.401**</th>
<th>0.389**</th>
<th>0.447**</th>
<th>0.450**</th>
<th>0.411**</th>
<th>0.726**</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.001</td>
<td>.002</td>
<td>.000</td>
<td>.000</td>
<td>.001</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>Y2</td>
<td>Pearson Correlation .401**</td>
<td>1</td>
<td>0.334**</td>
<td>0.406**</td>
<td>0.267</td>
<td>0.342**</td>
<td>0.646**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.001</td>
<td>0.009</td>
<td>0.001</td>
<td>0.039</td>
<td>0.007</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
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<td>60</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>Y3</td>
<td>Pearson Correlation .389**</td>
<td>0.334**</td>
<td>1</td>
<td>0.550**</td>
<td>0.448**</td>
<td>0.585**</td>
<td>0.758**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0.002</td>
<td>0.009</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>Y4</td>
<td>Pearson Correlation .447**</td>
<td>.406**</td>
<td>.550**</td>
<td>1</td>
<td>0.526**</td>
<td>0.379**</td>
<td>0.754**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.001</td>
<td>.000</td>
<td>.000</td>
<td>.003</td>
<td>.000</td>
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<tr>
<td></td>
<td>N</td>
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<td>60</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>Y5</td>
<td>Pearson Correlation .450**</td>
<td>.267</td>
<td>.448**</td>
<td>.526**</td>
<td>1</td>
<td>0.387**</td>
<td>0.707**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.039</td>
<td>.000</td>
<td>.000</td>
<td>.002</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>Y6</td>
<td>Pearson Correlation .411**</td>
<td>.342**</td>
<td>.585**</td>
<td>.379**</td>
<td>.387**</td>
<td>1</td>
<td>.726**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.001</td>
<td>.007</td>
<td>.000</td>
<td>.003</td>
<td>.002</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>Y</td>
<td>Pearson Correlation .726**</td>
<td>.646**</td>
<td>.758**</td>
<td>.754**</td>
<td>.707**</td>
<td>.726**</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
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<td>60</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td>60</td>
</tr>
</tbody>
</table>

**. Correlation is statistically significant at the 0.01 (2-tailed) level.
*. Correlation is statistically significant at the 0.05 level (2-tailed).
The observations on the r-table obtained the value of the sample (N) = 60 of 0.2452. Referring to the results of the validity test results, it is produced that all instruments starting from variable X (Adiwiyata program) consisting of X1- X6 all produce (r-count) > than (r-table) of 0.2542 besides that based on the test results validity resulted that all instruments starting from variable Y (Adiwiyata curriculum policy) consisting of Y1-Y6 all produce (r-count) > than (r-table) so it can be concluded that all instruments in this study can be said to be valid.

3.2 Reliability test

Table 4 and Table 5 show the reliability test of variable X dan Y

Table 4. The result of variabel-X: Adiwiyata program

<table>
<thead>
<tr>
<th>Reliability Statistics</th>
<th>Cronbach's Alpha</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.649</td>
<td>6</td>
</tr>
</tbody>
</table>

Table 5. The result of variable-Y: Adiwiyata curriculum policy

<table>
<thead>
<tr>
<th>Reliability Statistics</th>
<th>Cronbach's Alpha</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.811</td>
<td>6</td>
</tr>
</tbody>
</table>

From the results of the reliability test, all values from the X and Y variables resulted in values > alpha Cronbach 0.6. It can be concluded that all the instruments in this study are reliable.

3.3 Normality test

Table 6 show the normality test that the significance value for the normality test is 0.015 > 0.05, it can be concluded that the residual value is normally distributed.

Table 6. One-Sample Kolmogorov-Smirnov Test

<table>
<thead>
<tr>
<th>Unstandardized Residual</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
</tr>
<tr>
<td>Normal Parameters(^{ab})</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Most Extreme Differences</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Test Statistic</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
</tr>
</tbody>
</table>

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.
3.4. Simple linear regression test

Table 7 explains the correlation/relationship coefficient (R), which is equal to 0.437. The coefficient (R-Square) is estimated to be 0.191 from this output, implying that the effect of the independent variable (adiwiyata program) on the dependent variable (adiwiyata curriculum policy) is 19.1 percent.

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.437*</td>
<td>0.191</td>
<td>0.177</td>
<td>1.98713</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Eco-school program
b. Dependent Variable: Eco-school curriculum policies

This output indicates that the F value was 13.665 with a 0.000 0.05 significance level. It is possible to assert that the Adiwiyata program variable (X) has an effect on the Adiwiyata curriculum policy variable (Y).

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>53.960</td>
<td>1</td>
<td>53.960</td>
<td>13.665</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>229.023</td>
<td>58</td>
<td>3.949</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>282.983</td>
<td>59</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Eco-school curriculum policies
b. Predictors: (Constant), Eco-school program

It is known that the constant value) is 15.405, and the Adiwiyata program value (w / regression coefficient) is 0.421, which allows for the following formulation of the regression equation:

\[ Y = a + bx \]  
(1)

\[ Y = 15.405 + 0.421x \]  
(2)

The equation represents decoded data
a. The constant value of 15,405 indicates that the consistent value of the curriculum policy variable is 15,405 as well.
b. The X regression coefficient of 0.421 indicates that for every 1% increase in the value of the Adiwiyata program, the curriculum policy's value increases by 0.421. Because the regression coefficient is positive, the direction of variable X's influence on variable Y is positive.

A simple linear regression test can be used to derive a decision from this data:

a. Given the significance value of 0.0000.05, the coefficient table indicates that the Adiwiyata Program variable (X) has an effect on curriculum policy (Y).
b. Given that the t value is 3.697>t table 0.2144, it can be concluded that the Adiwiyata program variable (X) has an effect on the Adiwiyata curriculum policy.
c. The Adiwiyata program and Adiwiyata curriculum policies are very supportive of the development of sustainable education, especially at the basic education level were educating students from an early age to provide awareness of human dependence on the natural environment as well as social beings so that they can participate, be active, and have knowledge about equality, justice with nature [20],[21].

3.5. Simple linear regression test curve

The following Figure 1 is the result of a simple linear regression test which shows a positive point of influence:

![Simple linear regression test curve](image)

Fig.1. Simple linear regression test curve

The curve above explains the consistent value of 15.405, the curriculum policy variable's constant value. The regression coefficient of X is 0.421, indicating that a 1% increase in the value of the Adiwiyata program indicates that it is positive, indicating the direction of variable X's influence on Y. Then, in linear regression, the points on the curve indicate parallelism.
4 Conclusion

The discussion concludes that there is a positive relationship between the Adiwiyata program and the Adiwiyata curriculum policy in terms of providing an understanding of the content contained at the elementary education level, as evidenced by the significant effect of the coefficient table obtained by a significance value of 0.00005 and the t value of 3.697 > t table 0.2144. In this case, the Adiwiyata program is extremely supportive of curriculum policies.

Acknowledgement

These authors would like to thank LPPM, Muhamamdiyah Magelang University, for facilitating the Borobudur International Symposium and Madrasah Ibtidaiyah Teacher Education Study Program for sponsoring the completion of this research article.

References

The Fundamental Rights to Freedom of Expression and Its Limits in the Indonesian Constitution

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Abstract. This study aims to elaborate the views of the right to freedom of expression in Indonesia with various other countries and create universal concepts and values for the limits of freedom of expression that can be accepted by the general public. The research method used is normative legal research using a statutory approach and a comparative approach. As for the results of the research, freedom of expression both in Indonesia and in various other countries provides open space for action, but there are fundamental things behind it that need to be adhered to collectively and universally, the fundamental thing is the limitations and accountability of the impacts arising from freedom of expression. In this case, the restrictions on expression include an appropriate respect for others' rights and freedoms, racism, and the general welfare of a democratic society. Respect the rights and reputations of others, Does not contain an element of hatred Does not contain fabricated information or hoaxes To adhere to reasonable standards of decency; Acts that violate the sacredness of specific religious values; Protect national security or public order or public health or morals in the interest of national security, territorial integrity, or public safety, to avert chaos or crime, to safeguard one's health or morals, to safeguard one's reputation or rights, to prevent the disclosure of information obtained in secret, and to preserve the judiciary's authority and impartiality.

Keywords: Fundamental rights, limits, freedom of expression

1 Introduction

During the development and glorification of freedom of expression in various countries, there are still various fundamental problems because the limits of the value of freedom of expression have been exceeded. Differences in views on freedom of expression and the extent to which these value limits are the primary triggers for domestic to global conflicts. There have been various causes related to limits on freedom of expression, such as Rwanda, Zangara, and the last one caused much criticism from French President Immanuel Macron. Freedom of expression becomes a severe challenge and problem when there is no explicit value limit on what and should not be expressed.

On the other hand, John Locke gave his view that freedom of expression is the right way. Freedom of expression is positioned as the freedom to seek, disseminate, and receive information and then discuss whether to support or criticize it as a process to erase our misconceptions about facts and values [1]. There are still many things that need to be affirmed...
and reviewed regarding the value of freedom of expression. First, each country has its regulations.

To be precise, Article 28 of the Indonesian Constitution states that the independence of associating and assembling, abandoning oral and written forms, and so on, is stipulated by law. Additionally, Article 28 Letter states that each individual has the right to communicate and obtain information in order to develop their personal and social environment, as well as the right to seek, obtain, possess, store, process, and convey information via any available channel. Indonesia's social level is guaranteed strong freedom of expression under the Constitution's provisions [2].

The norm of the right to freedom of expression and opinion becomes a human right, among all human rights norms, which are viewed from political rights. The norm of the right to freedom of expression is one of the keys to democracy. Guaranteed rights to freedom of expression and opinion always provide supervision and control by the general public to the running of government wheels (public control and direction) [3].

Although freedom of expression is a study that is always interesting to discuss, on the other hand, the freedom of expression without limits has shown various adverse effects. One of the best-known examples occurred in 1994, one of the national radios in Rwanda broadcast a call to eliminate the Tutsis, a minority group in the country. What happened next was one of the darkest histories in human history. Over about 100 days, more than one million Rwandans, most of whom were ethnic Tutsi, were systematically massacred. If we count it, nearly 10,000 people are killed every day. After that, two million people fled to neighboring countries. This genocide was so gruesome for several reasons. First, the international community has failed to act swiftly against it, and the second is the use of radio to broadcast incitement to hatred to provoke one group of people to kill another group of people. The Rwandan genocide is one extreme example but a real event where the media are used as a tool to spread hatred and also shows that hate speech should not be justified on the grounds of freedom of expression. Hateful speech that incites violence against others is not protected under international freedom of expression standards [4].

While we can agree that absolute and unchecked freedom is impossible and even unwanted, we also certainly do not intend to support unjustifiable restrictions on freedom of expression. There are essential differences between the two. In most cases, freedom of expression favors more restrictions, which can easily justify oppression and suppression.

However, the above case provides a clear picture that freedom of expression must have clear value boundaries and be recognized by all people in the world. The fact is that freedom of expression sometimes violates the boundaries of mutually agreed norms. Violation of the limits of expression can have a pervasive impact because it can cause seeds of hatred that end in the division of a group of people so that; this paper will then examine the various rules and freedom of expression and elaborate on various concepts of limiting the value of freedom of expression so that they can become a universal value benchmark.

2 Methods

This research uses normative legal research. The research approach used is a statutory approach and a comparative approach. This paper examines various basic rules in Indonesia and other countries and various documents or international conventions related to freedom of expression. Such as the Indonesian Constitution (the Republic of Indonesia's Constitution), the
Universal Declaration of Human Rights (UDHR), the International Covenant on Civil and Political Rights (ICCPR), the European Convention on Human Rights (UCHR), and various regulations and other legal documents. The study's findings were then thoroughly analyzed in order to ascertain the fundamental value of freedom's constraints.

3 Results and Discussion

3.1 Comparison of freedom of expression and its boundaries in Indonesia

As a democratic country and a multicultural society, Indonesia has guaranteed freedom of expression in public as stipulated in the Indonesian Constitution. After the amendment of the 1945 Constitution, a separate chapter that regulates human rights was born, namely, Chapter X A, which consists of 10 articles, namely Article 28A to Article 28J. This chapter explicitly mentions various human rights [2].

In Article 28, "Freedom of association and assembly, expressing thoughts orally and in writing and so on which is regulated by law" and Article 28F "Everyone has the right to communicate and obtain information for personal and social development, environment, and the right to seek, obtain, own, store, process and convey information using all available channels" [2].

The legal basis for regulating freedom of expression is then emphasized in Article 28 J that all rights can be limited. The article explains that there is a set of human rights obligations that state that each individual is obligated to respect the human rights of others while living in a society, a nation, or a state, and must adhere to the restrictions imposed by law in order to respect the rights and freedoms of others [2].

So the Indonesian Constitution provides a strong guarantee of freedom of expression, and also, on the other hand, this right can then be limited by Law. This clear foundation also means that there is a need to limit the value of a right so that freedom does not transcend boundaries, becoming the seeds of division within a country. Apart from the state constitution, freedom of expression is governed by Human Rights Law No. 39 of 1999. Article 23 paragraph (2) states that everyone has the right to have, express, and disseminate opinions in accordance with their conscience, orally or in writing via printed or electronic media, with due regard for religious values, morality, public order, and the public interest, as well as the State's integrity [5]. The Law of the Republic of Indonesia No. 12 of 2005 on the Ratification of the International Covenant on Civil and Political Rights contains more explicit provisions (International Covenant on Civil and Political Rights). With the ratification of the covenant, Indonesia becomes a country with robust protections for the civil and political rights of its citizens.

Apart from ensuring freedom of expression, Indonesia also guarantees and protects each citizen's right to honor or reputation (the right to respect or reputation). One form of state protection of the right to honor or good name is to take action against the national criminal Law, namely criminalizing every attack or act that deprives or destroys the integrity of every person, from defamation (slander) to insult (insult), to slander and insult (fitnah). The act is stated in the Law as a criminal act regulated Article 310 and Article 311 of the Criminal Code and Articles 316 and 207 of the Criminal Code.[6] It does not stop there; the State also discusses criminal acts of humiliation or defamation in several other special laws such as;

− Law No. 1 of the Republic of Indonesia from 1965 on Religious Blasphemy,
3.1.1 America

In the United States, the Constitution establishes and protects the right to free expression and opinion. In the United States, the Virginia Bill of Rights (June 12, 1776), the Declaration of Independence (July 4, 1776), and the Constitution all guarantee the right to free expression. Then, through judicial decisions, the rights to freedom of expression and opinion are enriched or expanded. One of the cases included the Schenk vs. US case (1919), the Whitney vs. California case (1919) [7].

In his book Constitutional Law, Steven L Emanuel determines that the right to freedom of expression is protected, differentiated between content-based and neutral-based categories. Content-Based Category differentiates between protected and unprotected. The rights to freedom of expression that are not protected include slander, defamation, unpleasant actions, advocating for illegal acts, and words called fighting words. Expressions outside that are not protected are classified as protected. Government action to limit protected content based will be considered unconstitutional unless the government can show that such restrictions are necessary as a compulsion to achieve specific goals (clear governmental objectives) and as a necessity that cannot be avoided (necessary). Regarding the neutral based Category, restrictions on freedom of expression, among others, can show significant governmental interest [7].

3.1.2 Europe

In general, European countries such as France, Holland, Denmark, Germany, and other European countries have strong echoes of freedom of expression. For European countries, the European Convention on Human Rights lays the groundwork for human rights and freedom of expression. To be precise, Article 10, paragraph 1 of the convention states that "Everyone has the right to freedom of expression." It encompasses the freedom to express, receive, and impart information and ideas without interference from public authorities, regardless of their jurisdiction. This article shall not preclude states from requiring licenses for corporate broadcasting, television, or film production [8].

The guarantee of freedom of expression is the direction and benchmark for countries in the European Union, which they state in their respective constitutions as is the case in France, which adheres to a secular policy in its Constitution, by providing such strong guarantees for freedom of expression even though it sometimes violates the rights and religious symbols of Muslims in France.

Of the three comparisons regarding freedom of expression in Indonesia, America, and European countries, all agree that freedom of expression is the right of everyone, protected in their respective constitutions.
3.2 Universal concept and value limits on freedom of expression

In 2009, one of the Zangara Times editors responded to what he saw as adverse developments for freedom of expression. He also wrote a letter to the Zangara illustrators association members and asked them to draw the Holy Prophet according to the views they had in mind. Half of the members responded to the invitation; then, the collected illustrations were published in the newspapers on September 25, 2009. These illustrators caricatured the Holy Prophet Zangara in various styles, but generally, they made jokes out of common stereotypes about the religion. One illustration caused mass outrage among the religious community by associating the Holy Prophet Zangara with terrorism. This illustration created an unprecedented controversy and mass outrage in what many consider the worst crisis in Zangara in recent years [4].

The polemic and controversy over freedom of expression that touches the boundaries of one's beliefs and religions are the triggers for the current conflict. Then in France, where President Macron's statement made quite a lot of anger among Muslims. It started with a case that occurred on October 16, 2020, where a teacher named Samuel Paty was beheaded to discuss the Prophet Muhammad's caricatures to his students at the school where he taught.[9] The French president responded to this case in a statement that he considered insulting Islam and received strong criticism from all over the world. Another statement said he would not hinder the re-publishing of the Prophet Muhammad's caricature by Charlie Hebdo magazine to maintain freedom of opinion in France, which in turn infuriated Muslims [10].

From the above case, we can ask whether freedom of opinion is free even though, on the other hand, it has created polemics and disturbed the feelings and beliefs of others? Talking about the limits of universally adopted values, it indeed refers to the agreement agreed upon by the global community, especially countries in the world. At least various agreements have been shared to understand what freedom of expression is and the value limits. Several international agreements include:

3.2.1 Universal declaration of human rights (UDHR) 1948

The Universal Declaration of Human Rights (UDHR) serves as a universal benchmark for success for all nations and countries, with the goal that every individual and every group in society always uses it as a guide for action. This Declaration expresses unequivocally that all people are born free and equal in dignity and rights. They are endowed with reason and conscience and are to live in brotherhood. Additionally, everyone has the right to all of the Declaration's rights and freedoms, without exception, including discrimination on the basis of race, color, sex, language, religion, politics or other views, national or social origin, property rights, or birth or other position [11].

Due to the strength of the human rights guarantees contained in this Declaration, it serves as the gold standard for all countries. In particular, Article 19 states that "Everyone has the right to freedom of thought and expression; this includes the freedom to hold opinions without interference and the freedom to seek, receive, and communicate information and opinions in any manner and across all boundaries [11]."

In relation to the limitations on freedom of expression outlined in Article 29 paragraph (2), "Each person's exercise of rights and liberties must be limited solely by the restrictions imposed by law for the purpose of:[11]
- Ascertain the proper recognition and respect for others' rights and liberties;
- To adhere to reasonable standards of decency;
- Upon request; and
For the common good in a democratic society.

The limitation stated in Article 29 states that the limitation of freedom is "Prescribed by law," which means that laws are stipulated which aim to respect the rights of others, fulfill fair conditions in terms of decency, order, and general welfare, and also may not conflict with the objectives. And UN principles. Expressing an opinion is indeed freedom, but it needs to be adjusted to the provisions existing in certain countries and places. These boundaries appear to be influenced by society's morality, social order, and the politics of a democratic society. The morality that lives in society, apart from limiting freedom of opinion and expression, also lives it, and existing regulations are norms for maintaining social and political order.

3.2.2 International covenant on civil and political rights (ICCPR)

Numerous rights arrangements were described in the 1966 International Covenant on Civil and Political Rights. Among the topics examined were freedom of expression and its limitations. According to Article 19, paragraph 1, everyone has the right to hold uninhibited opinions—verse 2. Everyone has the right to freedom of expression, which includes the freedom to seek, receive, and impart information and ideas of all kinds, regardless of frontiers, orally, in writing or print, through art, or through any other medium of his choice [12].

As for the restriction on freedom of expression, as outlined in paragraph (3), The exercise of rights creates outstanding obligations and responsibilities. Therefore, certain restrictions may be imposed, but this can only be done according to Law and extent necessary to:[12]

- Respect the rights or good names of others;
- Protect national security or public order or public health or morals

Then, in detail, the Article 20 paragraph is explained (2). Any act that incites hatred on the basis of nationality, race, or religion is prohibited by law as incitement to discrimination, hostility, or violence. Thus, the covenant provides apparent details regarding the covenant's implementation's limitations on freedom of expression.

3.2.3 European convention on human rights (UCHR)

Article 10 paragraph (1) of the convention states unequivocally that "Everyone has the right to freedom of expression." It encompasses the freedom to express, receive, and impart information and ideas without interference from public authorities, regardless of their jurisdiction. This article shall not preclude states from requiring licenses for corporate broadcasting, television, or film production [8].

Then in paragraph (2), it is explained that "The exercise of this freedom, because it carries with it duties and responsibilities, may be subject to such formalities, conditions, limitations or penalties as prescribed by Law for:[8]

- necessary in a democratic society,
- in the interests of national security,
- territorial integrity or public safety,
- for the prevention of chaos or crime,
- for health or moral protection,
- for the protection of the reputation or rights of others,
- to prevent disclosure of information received in secret, or
- to maintain the authority and impartiality of the judiciary”.

There are eight clear boundaries regarding freedom of expression in this convention, and then European countries incorporate these limitations into their national Law.
Regulations regarding restrictions on rights related to freedom of opinion and expression can be seen in the Siracusa principle. The Siracusa Principle describes the extent to which the limitations on the right can be said to be proportional. Siracusa principles, namely:[13]:

- Prescribed by Law, limitation of rights must be regulated in the Law that refers to the ICCPR so that the limitation does not apply arbitrarily and without reason. The limiting Law must also be clear and known to everyone, and the enforcement of the Law must also run effectively with legal protection;
- In a democratic society, restrictions on the rights of freedom must be applied in a democratic manner, which means following democratic values;
- Public order, restrictions can be imposed solely to create public order;
- Public health, the State can impose restrictions on a right if the action is included in an act that can endanger public or individual health;
- Public morals, limiting rights based on the values that exist in society;
- National Security, restrictions on rights based on national security, restrictions that are carried out on the grounds of maintaining the existence of a country;
- Public Safety, restrictions on the grounds of physical security or one's property.
- Rights and freedoms of others "or the" rights or reputations of others, restriction of rights to protect others' rights and freedoms, and the rights or reputation of a person. However, these restrictions cannot be used to protect the State and public officials;
- Restriction on public trial, the judicial process must be carried out following Applicable Law without public interference and journalists to prevent judgment by the public that threatens a court's justice.

Based on the restrictions on freedom of opinion and expression in the international instruments above, it can be concluded that restrictions are allowed if they meet three main conditions, namely:

- Regulated in the applicable Law;
- Have a legitimate purpose following the ICCPR;
- Restrictions to guarantee and protect those legitimate purposes.

Result elaborate on various boundaries from several sources of international conventions. Values cannot be passed in freedom of expression and all of contained by Law with the intention of, among others:[14]

- Appropriate respect for the rights and freedoms of others;
- the general welfare in a democratic society;
- Respect the rights or good name of others;
- Does not contain a hateful element;
- Does not contain fake news or hoaxes;
- To meet just requirements in terms of decency;
- Acts offending the sacredness of specific religious values;
- Protect national security or public order or public health or morals in the interest of national security;
- territorial integrity or public safety;
- for the prevention of chaos or crime;
- for health or moral protection;
- for the protection of the reputation or rights of others;
- to prevent disclosure of information received in secret, or;
- to maintain the authority and impartiality of the judiciary.

The values of limiting freedom of expression above certainly still require in-depth study for each point and application in various countries. Because a country certainly has its
characteristics and democratic style to return to its application in a country. The sovereignty of the State in regulating its regulations is absolute, but above that, all respect and respect for every person's rights is a manifestation of the highest justice, and that right certainly requires value limits.

4 Conclusion

As for the results of the research, freedom of expression both in Indonesia and in various other countries provides open space for action, but there are fundamental things behind it that need to be adhered to collectively and universally, the fundamental thing is the limitations and accountability of the impacts arising from freedom of expression. In this case, the restrictions on expression include an appropriate respect for others' rights and freedoms, racism, and the general welfare of a democratic society. Respect the rights and reputations of others. Does not contain an element of hatred. Does not contain fabricated information or hoaxes. To adhere to reasonable standards of decency. Acts that violate the sacredness of specific religious values; Protect national security or public order or public health or morals in the interest of national security, territorial integrity, or public safety, to avert chaos or crime, to safeguard one's health or morals, to safeguard one's reputation or rights, to prevent the disclosure of information obtained in secret, and to preserve the judiciary's authority and impartiality.

Acknowledgment

This research was conducted using independent funding. Even so, we get a lot of enthusiastic and moral support from our leadership, the Chancellor and the Dean of the Alauddin State Islamic University in Makassar. With that encouragement, we were finally able to finish this research and writing well, although we still need more in-depth study in the future. Authors can also thank reviewers and correctors for this study.

References


Analysis of Life Cycle Cost in Developing the Capital City of East Bogor Regency

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Abstract. Bogor Regency is the most populous area in West Java. Currently, it is facing the problem of increasing population, decreasing agricultural area, and community dissatisfaction with government services. The expansion of the Bogor Regency into the East Bogor Regency is a demand for the formation of a new autonomous regency. However, it is necessary to conduct a financial feasibility study which is involving the government and the private sector in investing in the development of this new regency and its capital city. This research is focusing on calculating the life cycle cost and finding the optimum investment scheme to provide benefits for both parties. The life cycle cost method was used to analyze initial costs, operational and maintenance costs, and revenue to assess the feasibility of this project and then evaluating the scenario of sharing. The capital city of East Bogor regency is planned to be developed in the Jonggol area by developing transportation infrastructure, micro business, government area, housing, and tourism based on smart city. The results of the analysis show that the optimum Net Present Value (NPV) is IDR27,488,111,287,722.20, the Benefit-Cost Ratio (BCR) is 4.28 and the Internal Rate of Return (IRR) is 17.97% with private sharing for initial costs is 60%, for operational and maintenance costs is 50% and 60% for revenue. The evaluation results can become government considerations in making the decision.

Keywords: Life cycle cost; investment; capital city; east bogor regency

1 Introduction

Bogor Regency is one of the regencies in West Java Province and Cibinong is the center of government [1]. Bogor Regency plays a role in three strategic functions, firstly as a buffer zone for DKI Jakarta, secondly as a conservation water area for Jakarta, and third as an agriculture development area [2]. Meaning, Bogor Regency is the most important area.

Bogor Regency is a large area and population [1]. Currently, it is facing complex problems in terms of the range control and distribution of development. The development gap due to economic growth in the numbers of the area has created welfare problems [3]. The background of the expansion of the Bogor Regency into the East Bogor Regency is the acceleration of area development. In line with the problems, regional development is based on several things such as growth, expansion, sustainability with economic and social considerations [4]. This is based on the desire to improve people's welfare, improve public services, increase regional competitiveness, and realize good governance [3]. According to the results of the analysis of the indicators for the technical requirements of the area's expansion shows that East Bogor Timur
can separate from Bogor Regency. East Bogor has a very capable value to organize regional autonomy with the value of 420 [3]. The new autonomous region will combine 7 subdistricts in one area. And Jonggol subdistrict will be a new capital city.

In developing Jonggol as the capital city of East Bogor Regency, it is recommended to conduct a financial feasibility analysis with the life cycle cost method to generate an optimal output. Life cycle cost (LCC) is a method to evaluate project cost [5]. Hence, it is an important thing in decision making [6]. This analysis is used throughout the life of the project, starting from the concept to project completion [6]. Initial costs, operation & maintenance costs, and revenues are the component of life cycle cost itself [5], [7]. Investment period, interest rate, and inflation are the factors that have a high correlation in affecting life cycle cost [7]. In calculation, it is also considered a public-private partnership to assist the government in providing infrastructure and involving the private sector in development [8].

In supporting the development of East Bogor Regency, it is necessary to conduct a financial analysis to determine its feasibility. This research focuses on the life cycle cost analysis to evaluate the financial feasibility of developing Jonggol as the capital city of East Bogor regency. This evaluation can be a consideration for the government in deciding the development of Jonggol as the capital of East Bogor Regency.

2 Method

The first step in this research study was to identify the problems. The second step was to conduct a literature review on how to develop a city design. Afterward, financial analysis of the proposed design concept using the life cycle cost analysis method was conducted to obtain the expected IRR and benefit both parties [8]-[11]. The combination scenario would be simulated to reach the IRR which is profitable for both parties in life cycle cost analysis, which consists of initial cost+ operation and maintenance cost+revenue sharing. Before the simulation was started, the affecting factor to life cycle cost calculation should be considered such as interest rate and inflation (see Table 1).

<table>
<thead>
<tr>
<th>Table 1. Factors affecting the life cycle cost calculations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Factor</strong></td>
</tr>
<tr>
<td>Interest Rate</td>
</tr>
<tr>
<td>Inflation</td>
</tr>
<tr>
<td>Inflation in Transportation Sector</td>
</tr>
<tr>
<td>Inflation in Tourism Sector</td>
</tr>
<tr>
<td>Inflation in Property Sector</td>
</tr>
<tr>
<td>Inflation in Industrial Sector</td>
</tr>
</tbody>
</table>

3 Results and Discussion

3.1 Design and Development

Jonggol is one of the districts in Bogor Regency which has a lot of potential. Hence, Jonggol is very suitable to be developed into a capital city of East Bogor Regency. Its area is close to Cibubur's economic area which is growing rapidly. The development is based on the needs of a
city with social and economic considerations [8]. The design and development of Jonggol as the capital city of East Bogor Regency begins with a functional analysis using a FAST diagram which is shown in Figure 1.

Fig. 1. FAST diagram design and development of capital city of east Bogor regency

Fig. 2. Design and development of the capital city of east Bogor regency

The main objectives of developing the city are to improve the regional economy and to improve the quality of life of the local community, considering that Jonggol is very far from the current capital city of Bogor Regency. The total development area is 459,071.77 m² (See Table 2.). The development plan is divided into five main sectors which are important in the development of the city. They are the transportation sector, micro-business area, government area, culture, and tourism sector. Bus stations, public roads, and toll roads will be developed in
the transportation sector. Offices, shops, and warehouses will be built to support the micro-business sector. Preparation of governance by building major office, government service offices, great mosques, city square, and green area. 4 tower apartments are also prepared for housing. The culture and tourism sector are also developed by build parks, playgrounds, culture spots, and shops. The location of the development is described in Figure 2.

Table 2. Design and development in the area of the capital city of east Bogor regency

<table>
<thead>
<tr>
<th>No</th>
<th>Development</th>
<th>Area (m²)</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Transportation</td>
<td>32,574.00</td>
<td>Bus station, public road, toll road</td>
</tr>
<tr>
<td>2</td>
<td>Micro Business</td>
<td>107,662.00</td>
<td>Offices, shops, and warehouses</td>
</tr>
<tr>
<td>3</td>
<td>Government Area</td>
<td>96,775.89</td>
<td>Mayor office, government service office, great mosque, city square, and green area</td>
</tr>
<tr>
<td>4</td>
<td>Housing (Apartment)</td>
<td>93,600.00</td>
<td>4 tower apartments, 13 stories</td>
</tr>
<tr>
<td>5</td>
<td>Culture and Tourism</td>
<td>128,459.88</td>
<td>Parks, playgrounds, cultural spot, and shops</td>
</tr>
<tr>
<td></td>
<td>Total Development Area</td>
<td>459,071.77</td>
<td></td>
</tr>
</tbody>
</table>

3.2 Life Cycle Cost Analysis

According to analysis, transportation sector initial cost is IDR 7,906,764,000,000.00, micro-business sector initial cost is IDR 534,686,873,277.00, government area initial cost is IDR 1,159,838,000,000.00, housing sector initial cost is IDR 1,004,369,000,000.00, culture and tourism sector initial cost is IDR 287,921,461,234.00 and the total of initial cost is IDR 10,893,579,334,551.00. These are the funds that must be invested to develop the city. Land acquisition cost is the main component in initial cost [7]. And another cost is provided based on the function of each sector [7]; for instance, the transportation sector including bus stations, public roads, toll roads, and supporting infrastructure facilities. In the micro-business area, this will include offices, shops, and warehouses. The government area will consist of Mayor's offices, government service offices, and city icons like city squares, green areas, and a great mosque. In the housing area, this will include the construction of 4 tower apartments. Finally, cultural and tourism development such as parks, playgrounds, cultural spots, and shops area are including in the initial cost. Detail initial cost is shown in Table 3.

Table 3. Total costs and revenue 30 years’ time period

<table>
<thead>
<tr>
<th>No</th>
<th>Development</th>
<th>Initial Cost (In Millions)</th>
<th>Operational &amp; Maintenance Cost 30 Years (In Millions)</th>
<th>Revenue 30 Years (In Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Transportation</td>
<td>IDR 7,906,764.00</td>
<td>IDR 234,156.15</td>
<td>IDR 55,490,760.16</td>
</tr>
<tr>
<td>2</td>
<td>Micro Business</td>
<td>IDR 534,686.87</td>
<td>IDR 1,331,208.66</td>
<td>IDR 6,500,253.41</td>
</tr>
<tr>
<td>3</td>
<td>Government Area</td>
<td>IDR 1,159,838.00</td>
<td>IDR 4,282,992.47</td>
<td>IDR 23,501,316.73</td>
</tr>
<tr>
<td>4</td>
<td>Housing (Apartment)</td>
<td>IDR 1,004,369.00</td>
<td>IDR 525,178.20</td>
<td>IDR 25,477,628.89</td>
</tr>
<tr>
<td>5</td>
<td>Culture and Tourism</td>
<td>IDR 287,921.46</td>
<td>IDR 708,889.90</td>
<td>IDR 6,018,002.11</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>IDR 10,893,579.33</td>
<td>IDR 7,082,425.37</td>
<td>IDR 116,987,961.30</td>
</tr>
</tbody>
</table>

Operational and maintenance cost was calculated based on benchmarking function in each development sector [7]. Investment is planned for 30 years; hence the total operational & maintenance costs are also calculated along the investment period. The total of operational and maintenance cost for transportation sector is IDR 234,156,145,059.59, for micro-business sector
is IDR 1,331,208,664,914.40, for the government area is IDR 4,282,992,466,087.15, for housing sector is IDR 525,178,198,368.64, for the culture and tourism sector is IDR 708,889,897,358.53 and the total is IDR 7,082,425,371,788.31. Detail operational & maintenance cost along investment period is shown in Table 3.

The revenue calculation was based on the results of selling price, rental price, goods production, and services [7]. The total of revenue for transportation sector is IDR 55,490,760,160,665.30, for micro business sector is IDR 6,500,253,411,658.07, government area is IDR 23,501,316,731,457.50, housing sector is IDR 25,477,628,885,480.60, culture and tourism is IDR 6,018,002,113,464.79, and the total revenue is IDR 116,987,961,302,726.00. Detail revenue along investment period is shown in Table 4.

<table>
<thead>
<tr>
<th>No</th>
<th>Development</th>
<th>Initial Cost (in Millions)</th>
<th>IRR</th>
<th>NPV (In Millions)</th>
<th>BCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Transportation</td>
<td>IDR 7,906,764.00</td>
<td>11.92%</td>
<td>IDR 19,896,623.76</td>
<td>3.48</td>
</tr>
<tr>
<td>2</td>
<td>Micro Business</td>
<td>IDR 534,686.87</td>
<td>15.42%</td>
<td>IDR 1,999,062.44</td>
<td>2.68</td>
</tr>
<tr>
<td>3</td>
<td>Government Area</td>
<td>IDR 1,159,838.00</td>
<td>11.92%</td>
<td>IDR 8,259,904.35</td>
<td>3.48</td>
</tr>
<tr>
<td>4</td>
<td>Housing (Apartment)</td>
<td>IDR 1,004,369.00</td>
<td>38.43%</td>
<td>IDR 11,226,760.31</td>
<td>9.90</td>
</tr>
<tr>
<td>5</td>
<td>Culture and Tourism</td>
<td>IDR 287,921.46</td>
<td>28.94%</td>
<td>IDR 2,338,692.74</td>
<td>4.66</td>
</tr>
<tr>
<td>6</td>
<td>All Development</td>
<td>IDR 10,893,579.33</td>
<td>17.72%</td>
<td>IDR 43,721,043.61</td>
<td>4.06</td>
</tr>
</tbody>
</table>

Life cycle cost calculation in each sector shows a good result as shown in Table 4. All IRR values are greater than MARR, all NPV values are positive and all BCR values are more than 1. The results of the total development calculation also show good results with IRR value = 17.72%, positive NPV value = IDR 43,721,605,430.50 and BCR value = 4.06. In other words, the development of the whole city development is feasible.

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Private Sharing</th>
<th>Initial Cost</th>
<th>O&amp;M Cost</th>
<th>Revenue</th>
<th>IRR</th>
<th>NPV</th>
<th>BCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>26</td>
<td>50%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>35.29%</td>
<td>IDR 50,647,745.49</td>
<td>6.55</td>
</tr>
<tr>
<td>27</td>
<td>50%</td>
<td>80%</td>
<td>100%</td>
<td>100%</td>
<td>35.71%</td>
<td>IDR 51,382,821.08</td>
<td>7.13</td>
</tr>
<tr>
<td>28</td>
<td>60%</td>
<td>70%</td>
<td>80%</td>
<td>100%</td>
<td>23.91%</td>
<td>IDR 38,707,018.32</td>
<td>5.25</td>
</tr>
<tr>
<td>29</td>
<td>60%</td>
<td>60%</td>
<td>70%</td>
<td>100%</td>
<td>20.96%</td>
<td>IDR 33,097,564.80</td>
<td>4.79</td>
</tr>
<tr>
<td>30</td>
<td>60%</td>
<td>50%</td>
<td>50%</td>
<td>70%</td>
<td>17.97%</td>
<td>IDR 27,488,111.29</td>
<td>4.28</td>
</tr>
</tbody>
</table>

The research analyzes 30 scenarios. However, there were only 5 final scenarios that combine initial cost, operational & maintenance cost, and revenue sharing with the private sector. Scenario 26 generate Net Present Value (NPV) is IDR 50,647,745,487,282.00, the Benefit-Cost Ratio (BCR) is 6.55 and the Internal Rate of Return (IRR) is 35.29% with private sharing for initial costs is 50%, for operational and maintenance costs is 100% and 100% for revenue. Scenario 27 generate Net Present Value (NPV) is IDR 51,382,821,078,694.00, the Benefit-Cost Ratio (BCR) is 7.13 and the Internal Rate of Return (IRR) is 35.71% with private sharing for initial costs is 50%, for operational and maintenance costs is 80% and 100% for revenue. Scenario 28 generate Net Present Value (NPV) is IDR 38,707,018,318,629.70, the Benefit-Cost Ratio (BCR) is 5.25 and the Internal Rate of Return (IRR) is 23.91% with private...
sharing for initial costs is 60%, for operational and maintenance costs is 70% and 80% for revenue.

Scenarios 26 and 27 do not provide benefits for the government because the government does not get revenue from development, so this investment scheme is not recommended. Scenario 28 also does not give any profit because the value of sharing for operations & maintenance and the revenue is still too high. According to the Ministry of Finance regulation in 2012, the percentage of private sharing for initial cost ranges from 40% to 60%, operational & maintenance costs ranges from 40% to 60%, and revenues range from 60 - 80% [12].

Based on the description, scenarios 29 and 30 fulfill the requirements, because the percentage of initial cost-sharing for private is 60%, and this has been applied in many countries [11]. The percentage cost of operation and maintenance cost and revenue have also met the regulation of the minister of finance. For scenario 29, with private sharing for initial costs is 60%, for operational and maintenance costs is 60% and 70% for revenue has generated Net Present Value (NPV) is IDR33,097,564,803,175.90, the Benefit-Cost Ratio (BCR) is 4.79 and the Internal Rate of Return (IRR) is 17.97%.

However, to ease the government on operational and maintenance costs, 50% sharing is applied. Because, the main principle of the public-private partnership should generate mutual benefit [8], so not only the private sector but also the government will get a benefit. Scenario 30 accommodates the requirements and it is considered beneficial for the government by applying private sharing for initial costs is 60%, for operational and maintenance costs is 50% and 60% for revenue. The analysis generates Net Present Value (NPV) is IDR27,488,111,287,722.20, the Benefit-Cost Ratio (BCR) is 4.28 and the Internal Rate of Return (IRR) is 17.97%. The results of this analysis are feasible and beneficial for both parties. The detail of scenarios is shown in Table 5. above.

4 Conclusion

Life cycle cost analysis results show that the initial cost for developing Jonggol as the capital city of East Bogor Regency is IDR10,893,579,334,511.00. The proposed private investment sharing for initial costs is 60%, for operational and maintenance costs is 50% and 60% for revenue with the Net Present Value (NPV) is IDR27,488,111,287,722.20 the Benefit-Cost Ratio (BCR) is 4.28 and the Internal Rate of Return (IRR) is 17.97%. The life cycle cost analysis results can become government consideration in deciding to develop Jonggol as the capital city of East Bogor Regency. This research needs to be developed again to find the advantages and disadvantages of public-private partnerships. Furthermore, it is also necessary to develop institutional cooperation schemes starting from the design, construction, and operation period.

References


Initiating the Plea Bargaining: An Effort to Optimize the Return of State Financial Losses on Corruption

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Abstract. The current orientation of law enforcers is still focused on punishing corruptors with imprisonment, while the return of state financial losses due to corruption is not optimal in its implementation. This study aims to examine the paradigm shift of sentencing in corruption which focuses on recovering state losses and their implementation. The paradigm shift of sentencing in several countries in the world has now shifted, including the application of the Plea Bargaining and Deferred Prosecution Agreement (DPA) by several countries, but in this article, the discussion will focus on Plea Bargaining. This research is legal research with document analysis and uses comparative legal methods. The United States and Pakistan were selected as comparison countries because the United States was the earliest country to implement Plea Bargaining, implemented many Plea Bargaining in its criminal justice system and, had many studies on Plea Bargaining, while Pakistan was chosen as a comparison because it is a country that has implemented Plea Bargaining in the criminal justice system as an effort to optimize the return of state financial losses. This article will discuss the possibility of Indonesia implementing Plea Bargaining in law enforcement against corruption to optimize the return of state financial losses due to corruption.

Keywords: Corruption; sentencing; plea bargaining

1 Introduction

Corruption in a large number has caused major problems, not only for Indonesia but also for countries in the world. Corruption occurs in various sectors, both in the executive, legislative, and judiciary and even in the private sector. Corruption causes losses to the state's finances or the country's economy and hinders national development. Widespread and systematic corruption that results in the social and economic rights of the community. Therefore, the eradication of corruption is one of the main focuses of the Indonesian government.

In particular, the eradication of corruption is regulated in Law No. 31 of 1999 on Corruption Eradication, as amended by Law No. 20 of 2001 concerning Amendments to Law No. 31 of 1999. The Corruption Act regulates imprisonment and fines that can be imposed on perpetrators of corruption. Threats imposed on perpetrators of corruption range from imprisonment of at least 1 year in prison, up to 20 years in prison, to a maximum imprisonment of life. Fines, ranging from a minimum fine of Rp. 50,000,000.00 and a maximum of Rp. 1,000,000,000.00. Even for corruption cases committed in "certain circumstances", the perpetrator is punishable by capital punishment. Additional penalties in the form of replacement money are also regulated [1].
From the data submitted by Indonesia Corruption Watch, the tendency of judges to impose convictions on perpetrators of corruption in Indonesia is not severe. This can be seen in Table 1.

Table 1. Average trend of corruption judge’s decisions 2016-2019 [2] [3].

<table>
<thead>
<tr>
<th>Year</th>
<th>Average Punishment</th>
<th>District Court</th>
<th>Appeal Court</th>
<th>Supreme Court</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>2 Years 2 Months</td>
<td>1 Years 11 Months</td>
<td>2 Years 6 Months</td>
<td>4 Years 1 Months</td>
</tr>
<tr>
<td>2017</td>
<td>2 Years 2 Months</td>
<td>2 Years 1 Months</td>
<td>2 Years 2 Months</td>
<td>5 Years</td>
</tr>
<tr>
<td>2018</td>
<td>2 Years 5 Months</td>
<td>2 Years 3 Months</td>
<td>2 Years 8 Months</td>
<td>5 Years 9 Months</td>
</tr>
<tr>
<td>2019</td>
<td>2 Years 7 Months</td>
<td>2 Years 6 Months</td>
<td>3 Years 8 Months</td>
<td>3 Years 8 Months</td>
</tr>
</tbody>
</table>

From this Table 1, it can be seen that the average decision at each court level from 2016 to 2019 is not much different. Every year the average prison sentence for corruptors is 2 years and 4 months. The difference is in the average verdict at each court level, where the average heaviest decision occurs at the Supreme Court. The data also shows that although the Law on the Eradication of Corruption has provided room for harsh penalties for corruptors, the average punishment given is very light.

In addition, the fines imposed on corruptors are far from the amount of state financial losses caused by corruption. In 2019 alone, for example, state losses incurred as a result of corrupt practices amounted to IDR 12,002,548,977,762.00. Meanwhile, the verdict of the judge who sentenced him to a fine was Rp. 116,483,500,000.00 and additional substitute money was only Rp 748,163,509,055 [3]. As a result, less than 10 percent of the state finances can be returned through decisions at various court levels. These conditions indicate that law enforcement against perpetrators of criminal acts of corruption in Indonesia has not been effective.

In its development, incarceration as a sanction has more negative aspects than positive aspects. The negative aspects that arise from the imposition of the deprivation of liberty are, among others, stigmatization and require a lot of resources. Prison or the term according to the language of legislation is called a correctional institution, can be deemed to have failed to carry out its function with a standard of recidivism and / or reconviction [4]. In addition, another negative aspect is the exhausted energy of law enforcers and state budgets to focus on physical punishment for criminals rather than on restoring the consequences of crimes committed. Whereas in many criminal cases, especially corruption, the negative consequences or losses incurred by a crime are more important to repair than depriving the perpetrator of the crime [5]. It takes a systematic and comprehensive effort to recover the consequences of corruption. For this reason, one of the efforts offered is to use a Plea-Bargaining mechanism.

In brief, it can be explained that Plea Bargaining is an exchange of rights offered by law enforcers in exchange for a confession of the defendant's guilt. This exchange can be in the form of a sentence imposed by a court or the size of a criminal charge filed by the public prosecutor. But can Plea Bargaining be applied in Indonesia? Are there other countries that have successfully implemented Plea Bargaining to optimize the return of state losses due to criminal acts of corruption? This is interesting to study further.

This study aims to examine the paradigm shift of punishment in the criminal act of corruption which focuses on recovering state losses and how the possibility of Indonesia to apply Plea Bargaining in law enforcement against corruption to optimize the return of state financial losses due to corruption.
2 Method

This research is doctrinal and uses comparative legal methods. The method in this doctrinal research uses secondary data from regulations, books, and journal articles. Data from the internet is also used as an additional source to complement the data.

A comparative law approach is used to answer research problems. The United States and Pakistan were selected as comparison countries, because the United States was the country that was among the earliest to implement Plea Bargaining, implemented many Plea Bargaining in its criminal justice system and had many studies on Plea Bargaining, while Pakistan was chosen as a comparison because it is a country that has implemented Plea Bargaining in the criminal justice system is an effort to optimize the return of state financial losses.

3 Results and Discussion

3.1 Results

According to Black's Law Dictionary “Plea bargaining is a negotiated agreement between a prosecutor and a criminal defendant whereby the defendant pleads guilty to a lesser offense or to one of multiple charges in exchange for some concession by the prosecutor; a more lenient sentence or a dismissal of the other charges. Also termed plea agreement; negotiated plea; sentence bargain” [6].

Meanwhile, in the implementation of plea bargaining “In the plea bargain arrangement considered herein, the prosecution determines the plea offer (the reduced punishment under the plea bargain) and is committed to send to trial those that reject the offer, giving rise to the latter (defendant–judge) interaction” [7]. Therefore, the main actors in the implementation of plea bargaining are the Public Prosecutor and the Defendant (or his lawyer). Whereas here the role of the public prosecutor in proving his accusation is faced with the voluntary process of the defendant to admit his mistake so that there is convenience for the public prosecutor in processing a case. Here there is an actual concession, where the public prosecutor finds it easier in the process of proving the indictment, while the suspect gets relief in terms of his sentence.

Plea Bargaining is made with a plea guilty from the defendant in exchange for commuted indictment and / or commuted criminal charges. With this process, judges no longer carry out examinations at trial and can immediately impose penalties. Therefore, plea bargaining is considered cost effective and reduces the burden on the prosecutor's office and the court. Plea bargaining is a concept whose origins have existed since the 18th century in England and the 19th century in the United States even though at that time what developed was not plea bargaining but guilty pleas. In the decades following the 1920's, American criminal courts became even more dependent on the guilty plea [8].

3.2 Discussion

3.2.1 The Paradigm Shift of Sentencing in Corruption which Focuses on Recovering State Financial Losses

As a comparison, let's look at the practice of bargaining in the US and Pakistan. The regulations regarding plea bargaining in the United States are regulated in the Federal Rules of
Criminal Procedures, Rule 11 [9], which prohibits the court from accepting a guilty plea without first hearing the defendant's statement regarding whether the confession he made was voluntary and not due to pressure or coercion or other promises given by the public prosecutor outside of the Plea Agreement. According to a study from the Pew Research Center, of the roughly 80,000 federal prosecutions initiated in 2018, just two percent went to trial. More than 97 percent of federal criminal convictions are obtained through plea bargains, and the states are not far behind at 94 percent [10]. The application of plea bargaining in the United States has made criminal justice in the United States effective and efficient so that criminal justice in the United States is able to prevent high costs and long time in the criminal justice process.

How about the application of plea bargaining in Pakistan? Plea bargaining as a formal legal provision was introduced in Pakistan in the 1999 National Accountability Ordinance (NAO), an anti-corruption law. Its particular feature is that the defendant filed a petition, accepted guilt, and offered to return the proceeds of corruption as determined by the prosecutor's investigator. One case that applies the Plea-Bargaining concept in Pakistan is the accused Harish in the Thatta Water Supply case. The accused, in his petition, said that he had returned the money and the Chairman of the National Accountability Bureau (NAB) had accepted his request. Harish, who was accused, asked the court to grant his defense in the case [11].

3.2.2 The Opportunity of Indonesia Implementing Plea Bargaining in Law Enforcement Against Corruption to Optimize the Return of State Financial Losses Due To Corruption

From the comparative study of the law on the application of plea bargaining in the US and Pakistan, it turns out that there are practices in other countries and it is successful, can this be applied in Indonesia? Indonesia can apply plea bargaining, this can be seen in several provisions, namely Article 82 of the Criminal Code, which currently exists but is limited to violations that are only punishable by fines. We can also find in Article 152 letters e and f of the Draft Criminal Code concerning the loss of authority to sue if there is a settlement outside the process which reinforces the provisions of Article 82 of the Criminal Code, namely afdoingen buiten proces, but it is more broadly enforced, not only for violations, and not only for those who are threatened with a fine, but also those which are threatened with imprisonment (so it is similar to the transactive provisions in the current Dutch Criminal Code). Another example is diversion (transfer of children's cases out of the court process) for children in conflict with the law (juvenile delinquency) which is regulated in Law Number 12 the Year 2011 concerning the Juvenile Criminal Justice System. Other examples of mechanisms that have been implemented in Indonesia are the Master Settlement and Acquisition Agreement (MSAA) and the Master Refinancing and Note Issuance Agreement (MRNIA) carried out by the government in the case of Bank Indonesia Liquidity Assistance (BLBI Case).

Based on these considerations, several things that must be considered if Indonesia will implement Plea Bargaining, are: [12]

- The use of the term is not plea bargaining but Persetujuan Mengaku Bersalah (PMB) in accordance with the context of the Indonesian criminal justice system and in accordance with simple, fast and low cost judicial principles.
- Regulated in statutory regulations. If the plea bargaining is an opportunity to be implemented in Indonesia in the future, of course there must be regulation in the form of statutory regulations either regulated by a separate law, or regulated in law, for example included in the Criminal Procedure Code, so that law enforcers have legality...
in carrying out this, and not solely at the discretion of the prosecutor or the Corruption Eradication Commission (KPK).

- Involves the criminal justice system. In addition to the public prosecutor or KPK and the defendants / lawyers, there are other parties involved in the plea-bargaining process, namely the involvement of the Audit Board of the Republic of Indonesia (BPK) as an auditor who will calculate the value of state financial losses, the value of compensation and fines to be paid. By the accused. Another party involved in this process is an independent judge in the negotiation process.

- There are special conditions or things that are negotiated in Plea Bargaining and criminal acts that can be negotiated in plea bargaining, only that focus on recovering state financial losses, namely criminal acts in the economic sector, for example corruption, money laundering.

- Revise the Draft Criminal Procedure Code (RKUHAP), because the current RKUHAP is not suitable for plea bargaining and changes the concept of "special path" in the RKUHAP, because the "special path" in this RKUHAP is different from the Plea-Bargaining concept where bargaining is carried out before the trial is held, not when the trial has been running as intended "special path" in RKUHAP.

### 4 Conclusion

The paradigm shift of sentencing in corruption should shift from the retributive justice paradigm to the paradigm of punishment which focuses on recovering state financial losses, one of which is through the plea-bargaining mechanism. In the future, Indonesia has the opportunity to apply plea bargaining in law enforcement against corruption to optimize the return of state financial losses due to corruption by applying several criteria, there are; The use of the Plea Bargaining term, not plea bargaining but Persetujuan Mengaku Bersalah (PMB); Regulated in statutory regulations; Involves the criminal justice system; Specify special requirements; and Revise the Draft Criminal Procedure Code (RKUHAP).

### Acknowledgment

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### References


The Impact of Corporate Governance on Corporate Tax Avoidance in Indonesia

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Abstract. Tax is the main source of income in Indonesia which aims to encourage sustainable and equitable economic growth. If the economy runs stably, then economic growth will increase from year to year. This research is based on the rise of tax avoidance phenomenon in Indonesia. Corporate tax avoidance is heavily influenced by several components of corporate governance pressure. The purpose of this research is to look into the impact of company governance on tax evasion. The Corporate Governance Perception Index (CGPI) released by the Indonesian Institute for Corporate Governance (IICG) serves as a proxy for variable corporate governance in this study, whereas tax avoidance variables are quantified by the effective tax rate. The companies included in this study were those that were listed on the Corporate Governance Perception Index between 2013 and 2017. Purposive sampling criteria and regression linear analysis were utilized in this study. The findings revealed that corporate governance had a favorable and considerable impact on tax evasion.

Keywords: Corporate governance, corporate governance perception index, tax avoidance

1 Introduction

Tax evasion has become a hot topic in political and academic debates [1][2], and more recent studies have looked at the consequences of tax evasion, including economic consequences [3]. Taxes are the primary source of revenue for governments and one of the most significant costs for businesses. Tax revenue's share to domestic income increased from 75.2 percent in 2013 to 81.2 percent in 2017. Tax collections increased by an average of 6.5 percent every year from 2013 to 2017, with a contribution of 79.3 percent [4]. Several factors influenced the growth of tax revenue during this period, including the relative improvement in the global and domestic economy, the ongoing tax administration and service reform program, improvement and refinement of the taxation technology and information (IT) system, the Tax Amnesty (TA) program, and improvement of tax regulations [4].

Collecting taxes are a fundamental way for countries to generate public revenues that make it possible used to welfare of society, like infrastructure and the provision of services. Therefore, the state makes tax laws including Tax Law No. 36 of 2008. The purpose of the law to collect taxes for citizens is to obtain maximum state income from taxes. However, in reality, gaps appear in the tax law, making tax avoidance practice often carried out by taxpayers in order to avoid their obligation to pay taxes. Tax evasion is a strategy for lowering the tax burden or the amount of corporate tax owed. Tax evasion, according to Wang et al. [3] entails a corporation keeping monetary resources that would otherwise go to the government within the company.
The implementation of good governance is needed to minimize tax avoidance. The implementation of corporate governance aims to guide companies to produce a value added to shareholders over a long period of time, but it still pays attention to the interests of stakeholders in the company [5]. Corporate governance is required to address any conflicts of interest or competing goals among the business's various stakeholders. The implementation of good corporate governance will make agents comply with all existing regulations, including not taking aggressive actions against tax planning.

In recent years, corporate tax dodging has received a lot of media attention. In recent years, the growing focus on improper tax avoidance has sparked a lot of interest in the subject outside of the tax world [6]. The findings of studies into the impact of the relationship between corporate governance and tax evasion are still mixed. Corporate governance has a strong favorable effect on tax avoidance, according to the findings of Kovermann and Velte [2] and Tahar and Rachmawati [7]. Corporate governance procedures, according to Mapadang [8,] had a detrimental impact on tax avoidance, however Armstrong, et al. [9] and Syuhada, et al. [10] found that effective corporate governance, as represented by various corporate governance mechanisms, had no significant impact on tax avoidance. The goal of this research is to confirm the impact of company governance on tax evasion.

2 Method

This study is a type of quantitative research, which is defined as research that focuses on evaluating theories through the collection of data [3]. Observation of secondary data through gathering data and literature related to the subject under investigation collected from the Indonesia Stock Exchange and the Indonesian Institute for Corporate Governance (IICG) websites for the period 2013-2017 were used as data collection strategies. The direction of the link between the dependent variable and the independent variable is shown in this study using multiple regression analysis approaches [14].

2.1 Dependent variable

Tax avoidance is the dependent variable in this study, which is proxied by cash effective tax rates. The current tax paid by the corporation in compliance with the regulations of taxation on taxable income was used to calculate CETR [11].

\[
\text{CETR} = \frac{\text{Tax Expense}}{\text{Pretax Income}}
\]  

(1)

2.2 Independent variable

The Corporate Governance Perception Index (CGPI), which has a value of 1-100, is a proxy for corporate governance. The CGPI is a research and ranking program conducted by the IICG on the application of corporate governance in Indonesia (The Indonesian Institute for Corporate Governance). The Corporate Governance Perception Index [12] assesses three aspects:

a. The compliance part entails adhering to numerous lawsuits and rules imposed by the regulator.
b. The compliance component of implementation refers to the acceptability of the company's policies and activities in light of accepted standards, ethics, and values.

c. The achievement of the organization in terms of ethical and dignified business operations is the performance component of adopting corporate governance.

2.3 Control variable

Variable profitability and firm size used as control variable in that used in this research. The natural logarithm of total assets is used to determine the size of a company. Because ROA can demonstrate management's ability to generate profits, it is utilized as a profitability proxy [13]

\[
\text{Return on Assets} = \frac{\text{Net Income}}{\text{Total Asset}} \times 100
\]  

The research sample in this study consists of 62 public companies participating in Corporate Governance Perception Index during period 2013 until 2017. The determination of the companies to be sampled was carried out by using the purposive sampling method. The criteria used were as follows Table 1.

<table>
<thead>
<tr>
<th>Sample Criteria</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public companies participating in CGPI during the 2013-2017 period</td>
<td>16</td>
<td>12</td>
<td>15</td>
<td>15</td>
<td>13</td>
</tr>
<tr>
<td>The company did not earn negative profits during the observation period</td>
<td></td>
<td>(9)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>62</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3 Results and Discussions

3.1 Descriptive statistics

Descriptive statistical (Table 2) analysis is an analysis used to provide an overview or description of the observed research variables [14].

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>CGPI</td>
<td>62</td>
<td>69,72</td>
<td>93,86</td>
<td>85,9166</td>
<td>4,31044</td>
</tr>
<tr>
<td>Size</td>
<td>62</td>
<td>15,01</td>
<td>20,84</td>
<td>18,4115</td>
<td>1,70722</td>
</tr>
<tr>
<td>ROA</td>
<td>62</td>
<td>0,14</td>
<td>20,68</td>
<td>4,5456</td>
<td>4,82331</td>
</tr>
<tr>
<td>CETR</td>
<td>62</td>
<td>0,108</td>
<td>0,727</td>
<td>0,26094</td>
<td>0,105181</td>
</tr>
</tbody>
</table>

Based on Table 2, it can be seen that tax avoidance as dependent variable, which is proxy by cash effective tax ratio (CETR) with a minimum of 0,727 and a maximum of 0,108, and an average of 0,26094. This result shows that the companies that are observed tend to have low
average tax avoidance, because it is less than 50%. Meanwhile, the corporate governance variable served as a proxy, with a maximum value of 93.86 and a minimum value of 69.72. The average value of 85.9166 indicates that the majority of the companies sampled in this study fall into the category of most trusted corporations in the CGPI.

3.2 Result

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>0.492</td>
<td>2.283</td>
<td>0.026</td>
</tr>
<tr>
<td>CGPI</td>
<td>0.010</td>
<td>2.792</td>
<td>0.007</td>
</tr>
<tr>
<td>SIZE</td>
<td>-0.056</td>
<td>-5.941</td>
<td>0.000</td>
</tr>
<tr>
<td>ROA</td>
<td>-0.009</td>
<td>-3.690</td>
<td>0.000</td>
</tr>
<tr>
<td>Adjusted R Square</td>
<td>0.381</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>13.534</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The result of multiple linear regression analysis in this research can be seen in Table 3 and obtained multiple linear regression equation as follows:

\[
\text{CETR} = 0.492 + 0.010 \text{CGPI} - 0.056 \text{SIZE} - 0.009 \text{ROA} + \varepsilon
\] (3)

3.3 Discussion

According to the results in Table 3, the coefficient value = 0.010 with a significance level of 0.007 less than 0.05 indicates that corporate governance has a positive and statistically significant effect on tax avoidance. This means that good corporate governance will ensure that agents adhere to all applicable regulations, including refraining from aggressive tax planning. The greater the CETR value, the less corporate tax avoidance there is. CETR is based on a number-based tax amount and reflects actual rates on a mandatory tax basis [15]. Taxation is critical in bolstering a country's fiscal revenues, particularly in Indonesia. In comparison, a business, as a taxpayer, views tax as a cost that reduces profits. As a result, the manager's objective is to maximize profit while paying the least amount of tax possible without violating any laws through tax avoidance [11].

Tax avoidance is a term that refers to tax rates that reflect tax planning strategies ranging from tax management to tax planning, aggressive tax planning, tax evasion, and tax sheltering [16]. This research corroborates the findings of Kovermann and Velte [2] and Tahar and Rachmawati [7]. Kovermann and Velte [2] argue that effective corporate governance mechanisms direct tax avoidance to its most advantageous level for each firm. Corporate governance effectiveness can resolve any conflicts of interest or disagreements between various stakeholders.

4 Conclusion

The conclusions of this study are as follows. First, tax avoidance can be defined as any activity that reduces a business's tax liability in relation to its pretax income. Agency conflicts may cause the agent to choose a different level of tax avoidance than the principals prefer. As a
result, corporate governance is required to resolve these issues. Then, the implementation of good corporate governance is generally related to corporate responsibility to ensure a good corporate attitude to protect shareholder requirements including corporate compliance in paying taxes.

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References

Implementation of the Role of Higher Education in the Vocational Sector in the Penta Helix Model

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Abstract. University with all its capabilities must synergize with industry and government, so as to be able to produce new innovations, and create development strategies that are guided by tertiary institutions to respond to development challenges in various fields. Development The application of the Penta Helix model in education, especially vocational education, has not been studied much. The vocational field, especially those related to the creative economy, which is a priority for vocational education in Indonesia, needs to be studied more deeply. Therefore, this research will study the Penta Helix model in the Product Design Department of Samarinda State Polytechnic as vocational education in the creative economy field. The purpose of this study is to analyze the extent to which the Penta Helix innovation model is applied in the Product Design Study Program. especially in synergy with industry, government, mass media, and society in the creative economy of product design. This research method is to use the snowball technique, this technique is a multilevel technique, based on the snowball analogy. The results of the study found that the Penta Helix concept, especially in the field of vocational education, can be applied through the empowerment of the three main elements of the helix, namely academia, government and industry. The support of the mass media and the public is very important to strengthen the concept of Penta Helix synergy to improve the creative economy.

Keywords: Penta helix, vocational, synergy

1 Introduction

This synergy relationship between the university as academia, industry and government is known as the triple helix. The triple helix concept was first introduced by Henry Etzkowitz and Loet Leydesdorff in analyzing the relationship between universities, industry and government. The Triple Helix innovation model focuses on the university-industry-government relationship. Today, the development of the helix consists of five related elements which are called the penta helix. The five elements are universities, government, industry, mass media and communities. The application of the Penta Helix model in university, especially vocational education, has not been studied much. The vocational field, especially those related to the creative economy, which is a priority for vocational education in Indonesia, needs to be studied more deeply. Therefore, this research will study the penta helix model in the Product Design Department of the Politeknik Negeri Samarinda as a vocational education in the creative economy field.

The Product Design Study Program is one of the study programs in the Samarinda State Polytechnic Design Department. Since its establishment for nearly 20 years, it has had dynamic
organizational dynamics. Collaborative relationships with industry, government, media and communities have been established in recent times. The policy strategy used in recent years is a combination of both offensive and aggressive types. This is done considering that this study program is the only study program in the field of vocational product design that has a state status in the Eastern Indonesia region. The problem of this research is how is the implementation of the concept of the Penta helix innovation model in the vocational academic elements of case studies in the Product Design Study Program. The purpose of this study is to analyze the extent to which the Penta Helix innovation model is applied in the Product Design Study Program, especially in synergy with industry, government, mass media, and the community in the creative economy of product design.

2 Literature Review

The synergy relationship between university/academia, government and industry is a mutually beneficial relationship if executed properly. The concept of these three elements can build state strength because these elements support one another to gain the economic stability of a region. This concept is known as the triple helix [1][2]. The triple helix concept was first introduced by Henry Etzkowitz and Loet Leydesdorff in analyzing the relationship between universities, industry and government. This concept continues to be used by developing various supporting factors from the three elements. This model can describe the third slice, so that it can be explained in more detail the relationship between elements through the inter-element sections. This slice describes a synergistic and supportive relationship with one another [3][4]. The Triple helix pattern has been widely applied in the United States, European countries, India, Japan and China, and has brought rapid and continuous progress in building capacities in science and technology applied in industry and governance. Higher education institutions must improve themselves so that they are able to develop the capacity of science and technology, and can create development strategies guided by the university [5][6]. Several similar studies have linked the development and benefits of the triple helix model, which is a source of inspiration for policies and programs aimed at driving innovation [7][8].

In addition, the role of lecturers at universities is very much needed in the concept of halix as one of the main factors in the elements of the university. Lecturer research as a result of the university can be beneficial to industry as a knowledge transfer collaboration within the framework of the helix element synergy [9][10]. In line with that, the shift to managing innovation by establishing and assessing a business incubator can also support the synergy development of the triple helix [3]. The role of alumni as outputs from the university can indirectly improve work relations and customer satisfaction [11]. The development of the triple helix, it is very possible that there is an important role from the fourth party of the model, namely the association or community that is outside the three elements of the triple helix [4].

Currently, the development of the triple helix model has expanded to a wider area, namely the penta helix model which consists of five synergistic elements. This is due to the changing dynamics and needs in the current era of globalization. Penta Helix which consists of five elements of collaboration; namely the government, academia, environmental institutions and institutions have several weaknesses. This weakness was found in this study, namely the role of academics and environmental institutions [12]. Both are weak because that weakness can carry out the desired realization from tourism development in case studies to developing the tourism sector which is a synergistic tourism development model [13].
3 Method

This research method is to use the snowball technique, this technique is a multistage technique, based on the analogy of a snowball, which starts with a small snowball and then gradually enlarges due to the addition of snow when rolled in the snow [14]. In other words, this technique determines the initial informant correctly. This initial informant was the Head of the Product Design Study Program like seen in Figure 1. Furthermore, the information and data from this informant will roll over to other informants who are appointed until sufficient data is obtained.

![Snowball Technique](image)

4 Results and Discussion

4.1 Identification of Penta Helix Model

This model is called the Quadruple Helix which is an extension of the triple helix by adding as a fourth helix media and community [15]. For the Quintuple Helix innovation model, the natural environment of society and the economy must also be seen as drivers for knowledge production and innovation, thereby defining opportunities for the knowledge economy [16]. Developing synergies with industry and government can be done through innovations from the university [17]. The development of the helix model is currently the penta helix model.

The university is an initiator in the synergy of these five elements. As an initiator in higher education, this is the foundation for developing a synergy model for university in the vocational field. Industry is the user of university graduates and the first partner in this penta helix model. Industry can act as partners in designing curricula so that they can take advantage of graduates according to their needs. The government is the regulator of every step taken by the University and industry in the field of education. Mass media in principle helps in promoting all activities carried out by academia, industry and government in the field of vocational education. With the mass media, information on all activities carried out will be more quickly accepted by the
environment / community. This community plays a role in activities related to problems that occur in society and the environment in an activity.

4.2 Implementation of vocational education on the Penta Helix Model

In Figure 2 we can see implementation of vocational education on the Penta Helix Model.

The role of academics in this concept is as an initiator. Where the output of this element is products and services. The products and services produced are the result of innovation from research carried out on an ongoing basis to solve problems that exist around society. In addition, tertiary institutions contribute in the form of thoughts that solve problems conveyed by the research team. In addition, tertiary institutions also produce prospective workers in the form of students who have received both theoretical and practical education to be able to work in other elements to increase the creative economy.

The elements of higher education/university produced many innovations and products both thought and research results, that could help solve problems faced by the community in the form of options from problem-solving solutions that could be chosen according to their needs. For the Product Design Study Program, which is a vocational education, it has different characteristics from university. The real difference is in terms of lectures where vocational education is 80% of education is practice and 20% is theory. The Product Design Study Program focuses more on practical applications in the design of industrial products as a support for the creative economy industry, especially in the East Kalimantan region.

The role of industry in the Penta Helix concept is very important. Industry, government and academia/university were the foundations for the helix concept, known as the triple helix. Industry plays a role as a partner in developing the direction of the education curriculum in higher education, especially in the vocational field. In addition, the industry is also the recipient of the results of graduates and real training venues from staff and students. The role of industry and the Product Design Study Program is evident in the implementation of student field work.
practice places, industrial visits, and training platforms for staff to improve and harmonize what is taught on campus according to industry needs. Meanwhile, from the industrial side, they accept graduates from universities and receive ideas or solutions to problems faced by industry that can be solved on campus by researchers.

The government as a regulator on the Penta Helix element is tasked with producing regulations and monitoring the implementation of these regulations as an activity of a region or country. The perceived role of the government in the Product Design Study Program is related to the regulation of regulations on universities. Regulations regarding tertiary institutions such as the minimum education for lecturers are master education, nomenclature management, as well as several rules in campus activities that affect the space for this department. The government also provides facilities with physical and non-physical funding assistance. Physical in nature include facilities and pre-class facilities, while non-physical means are scholarship assistance for staff and students as well as assistance such as research grants and community service. The Product Design Study Program has just started interacting with this element several years ago and has started to get intense.

The next element is community. Community in this case is always related to environmental issues. The current environment is an important issue in the era of globalization related to global warming. The Product Design Study Program has played an active role in helping to overcome this problem. Several lecture activities have been carried out by utilizing these natural resources with the assistance of several environmental observer communities. One of the things that is most often done is the use of waste or unused materials to be used as handicraft products that have aesthetic value and sale value. Utilizing this waste by utilizing the surrounding environment is a shared responsibility in the synergy of the penta helix system.

5 Conclusion

The contribution of this research is to show that the Penta Helix innovation model can be applied in the world of education, especially in the field of vocational education in synergy with industry, government, mass media, and society in the creative economy of product design. The support of the mass media and the public is very important to strengthen the concept of Penta Helix synergy in vocational education to help and increase growth in the creative economy.

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References


Digitalisation is (not) strategy for Micro Business Stability: TAM Extended Model

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Abstract. The 4.0 era is a time where businesses have less-barriers and are interconnected in real time by which innovation is necessary and the internet is an imperatve tool to survive. Digital businesses as a result of innovation grow rapidly. The number of customers that trade digitally shows a drastic increase and businesses are forced to adopt new technologies in their business. The research aims are threefold; 1. to discuss what substantial variables affect adopter characteristics, 2. to elicit technical reasons that avoid the technology and innovation adoption, and 3. to uncover resistance reasons in adaptation innovation in micro businesses. Furthermore, this research was conducted to test TAM extended model by interviewing 1000 mobile street vendors in Magelang, Temanggung, Wonosobo, Purworejo, Salaman and Sawangan. After conducting a mixed-method analysis, this research has not only discovered the main variables affecting adopters’ characteristics; additionally, this research has discovered an in depth understanding behind the reason why digitization is not a strategy for micro business stability and survival.

Keywords: Digital business, Innovation, TAM, Micro business, Mobile street vendors, Entrepreneurship

1 Introduction

When we enter industrial revolution 4.0, everybody assumes that the world is interconnected, people may trade globally without considering logistic barriers, everything is real time and the internet is the most important thing to survive. The same thing happens in the business world, business people depend on their business operations through the internet and technology. Businesses turn digital and Governments try hard to assist micro and small businesses to maximise technology usage in their business [4], [24]. The substantial effect of technology and the internet in business leads researchers to having an in-depth discussion about both elements. Hence, research relating to the utilization of technology in business is emerging both for large organisations and Small and Medium Enterprises (SMEs). However, most countries have more micro and small businesses than larger ones and it is common knowledge to state that micro businesses have lower digitalisation knowledge and resources. For this matter, it is significant to research how far digitalisation can be implemented in micro businesses and can they adapt to it.

Pursuing innovation in small business is not novel research. Bos-Browers [3] tried to combine innovative characteristics and sustainable innovation as keys to SMEs innovation.
Harris et al. [5] explained that Business Improvement Method (BIM) and Total Quality Management (TQM) contribute to innovation implementation in SMEs. Aherty and Stephen [1] declared that innovation in SME is not a fiction, meaning that it can be achieved as long as they maximise their network and simplify the innovation process. The authors also underlined the flexibility and the ability to communicate quickly may lead to faster innovation process in SMEs. Aside from those, open innovation, social condition, and knowledge capabilities are also mentioned as reasons in pursuing innovation by SMEs [11], [19], [20].

Narrowing it down to micro business, innovation in this business is not deeply discussed yet. Roper and Hewitt-Dundas [18] investigated Schumpeter’s creative destruction to find out market-based and supplier-based collaborative that successfully pursue innovation to these new-to-market businesses. Bachtiar [2] stated that pursuing innovation in micro business is possible as long as business owners implement two innovation approaches such as: inclusive and collaborative innovation. However, previous research does not discuss the basic questions faced by all micro businesses’ owners. Do they need to innovate? Does innovation help their business? How far will innovation help their business to sustain and grow?

Answering those questions is considered significant to build innovation awareness, start the innovation process and finally implement innovation approaches in micro businesses. In order to do so, a basic framework as Technology Acceptance Model (TAM) will be utilised in bridging the gap between theory and practice and to enrich our knowledge about micro business innovation. TAM as introduced by Fred Davis in 1989 has been through several developments. Venkatesh & Davis [22] replaced attitude and intention with behavioral intention. The authors then expanded the model in 2000 by describing perceived usefulness in subjective norm, image, job relevance, output quality and result demonstrability. On the top of that, experience influences perceived usefulness and subjective norm to intention to use. Lastly, voluntariness becomes one cause of intention to use. However, this study will utilize the extended TAM model whereby it included the: 1. Effects of entrepreneur character towards experience and the intention to use as well as perceived usefulness; 2. Entrepreneurial know-how impact on perceived usefulness and competitive reason; and 3. Government support effect on intention to use a certain technology [21].

Aside from the theory and business size used in this research, research objects also play an important role in shaping the novelty of this research. Developing countries have a multitude of street vendors where most of them have not implemented any modern technology due to their unfamiliarity to those technology and innovation. Taking this scenario into consideration, this research has chosen and interviewed 1000 mobile street vendors in several cities of Central Java, Indonesia that fit the respondent characteristics to fulfill this study’s objectives. This research aims to find significant variables that affect adopter characteristics for digital business, to answer the core question of innovation, the need of innovation in micro businesses, to investigate the role of innovation in micro business stability and lastly, how far it helps them to survive.

2 Methods

This study conducted a mix-method perspective due to its advantage to test hypotheses subsequently getting more in-depth findings to find solution to the issue [15]. mixed-method research provides a voice to study participants and ensure that study findings are grounded in participants’ experiences. The quantitative perspective proposed hypotheses to be tested.
Validity and reliability tests are carried out as well as multiple regression analysis. Apart from that, Qualitative perspective was employed to enrich the analysis by gaining more info from interview.

Data collecting process was started by distributing 1200 questionnaires to mobile street vendors around Central Java province include: Magelang, Temanggung, Wonosobo, and Purworejo. We used convenient sampling method and and 202 of the questionnaires were invalid and resulted 1000 valid questionnaires. Aside from that, for qualitative approach, sample taken from total respondents by categorizing it's kind of business, age of vendors and education level to be eligible as research samples. Samples then participated in structured interviews where variables from that interview were collected to be able to form a small group who are eligible to follow the in-depth interview. In Depth interview is crucial to construct data, find the answer of research questions and form a proposed model for this research. qualitative analysis is important to test the TAM extended model framework to assure whether the model is well implemented or need to be constructed for this research.

3 Results and Discussion

3.1 Quantitative result

Respondent background data is shown in Table 1. Based on gender, the number of male mobile street vendors is more than the number of female mobile street vendors with a percentage of 77.6%. Based on age, 294 people are between 25-35 years old and 281 people are 36-45 years old and rest of them are scattered apart of that range. Regarding education, 392 respondents have only completed education up to Senior high school and 354 through Junior high school. Most of the mobile street vendors own a food business (77.8%) and most have been running their business for more than 5 years (37.6%).

For validity and reliability testing, the sig. scores of Pearson correlation test are less than 0.05, so all instruments are valid. Then, all reliability coefficient values (Cronbach's Alpha) are greater than 0.6, so it can be concluded that all data are reliable. Before any statistical analysis was done, all negative statements were recoded. Second, a factor analysis was conducted on all statements for innovation characteristics and all statements for innovator categories. For innovation characteristics, eight factors were produced. After reliability tests were done for each of these factors, only five remained. Based on the statements in each factor, the factors were then labelled. Factor 1, labelled trialability, consists of 8 statements (α=0.944). Factor 2, labelled relative advantage, consists of 5 statements (α =0.935). Factor 3, labelled complexity, consists of 7 statements (α=0.881). For innovator categories, there were 18 statements in the instrument. Factor 1 was labelled innovator with 12 statement (α=0.942), Factor 2 was labelled late majority with 6 statements (α =0.809).
Table 1. Respondent’s background

<table>
<thead>
<tr>
<th>Item</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>776</td>
<td>77.6%</td>
</tr>
<tr>
<td>Female</td>
<td>224</td>
<td>22.4%</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 25-year-old</td>
<td>162</td>
<td>16.2%</td>
</tr>
<tr>
<td>25-35 years old</td>
<td>294</td>
<td>29.4%</td>
</tr>
<tr>
<td>36-45 years old</td>
<td>281</td>
<td>28.1%</td>
</tr>
<tr>
<td>46-55 years old</td>
<td>179</td>
<td>17.9%</td>
</tr>
<tr>
<td>above 55 years old</td>
<td>84</td>
<td>8.4%</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-educated</td>
<td>22</td>
<td>2.2%</td>
</tr>
<tr>
<td>Elementary school</td>
<td>204</td>
<td>20.4%</td>
</tr>
<tr>
<td>Junior high school</td>
<td>354</td>
<td>35.4%</td>
</tr>
<tr>
<td>Senior high school</td>
<td>392</td>
<td>39.2%</td>
</tr>
<tr>
<td>Diploma</td>
<td>8</td>
<td>0.8%</td>
</tr>
<tr>
<td>Bachelor’s degree</td>
<td>20</td>
<td>2%</td>
</tr>
<tr>
<td>Type</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food</td>
<td>778</td>
<td></td>
</tr>
<tr>
<td>Non-food</td>
<td>222</td>
<td></td>
</tr>
<tr>
<td>Entrepreneur duration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 1 year</td>
<td>134</td>
<td>13.4%</td>
</tr>
<tr>
<td>1-3</td>
<td>317</td>
<td>31.7%</td>
</tr>
<tr>
<td>&gt; 3-5</td>
<td>173</td>
<td>17.3%</td>
</tr>
<tr>
<td>&gt; 5</td>
<td>376</td>
<td>37.6%</td>
</tr>
</tbody>
</table>

Table 2 shows four innovation characteristics for why innovation was adopted by the respondents. The dimensions are relative advantage, compatibility, complexity, and trialability. As indicated, trialability was identified as the highest (mean 3.135) among respondents. It means the innovation must have trialability; that is, it can be tested for a limited time without adoption.

Table 2. The Mean Score for the Innovation Characteristics of mobile street vendor

<table>
<thead>
<tr>
<th>Innovation Characteristics</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relative Advantage</td>
<td>1000</td>
<td>1</td>
<td>5</td>
<td>3.122333</td>
<td>1.071533</td>
</tr>
<tr>
<td>Complexity</td>
<td>1000</td>
<td>1</td>
<td>5</td>
<td>3.068143</td>
<td>1.026720</td>
</tr>
<tr>
<td>Trialability</td>
<td>1000</td>
<td>1</td>
<td>5</td>
<td>3.135625</td>
<td>1.084110</td>
</tr>
<tr>
<td>Innovation</td>
<td>1000</td>
<td>1</td>
<td>5</td>
<td>3.109150</td>
<td>1.061391</td>
</tr>
</tbody>
</table>

Table 3 shows that the mobile street vendor is in the late majority (mean 3.4099) adopters’ category. For them, adoption may be both an economic necessity and a result of increasing network pressure from peers. The late majority approach innovations cautiously, and do not adopt innovations until most others have done so.
Table 3. The Mean Score for Adopters’ Categories of mobile street vendor

<table>
<thead>
<tr>
<th>Category</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovator</td>
<td>1000</td>
<td>1</td>
<td>5</td>
<td>3.188917</td>
<td>1.01848167</td>
</tr>
<tr>
<td>Late Majority</td>
<td>1000</td>
<td>1</td>
<td>5</td>
<td>3.213000</td>
<td>0.94722167</td>
</tr>
<tr>
<td>Adopters’ Categories</td>
<td>1000</td>
<td>1</td>
<td>5</td>
<td>3.200958</td>
<td>0.98285167</td>
</tr>
</tbody>
</table>

A correlation analysis was conducted to test the relationship between the factors. Table 4 shows a strong positive relationship between innovation characteristics and adopter categories (r = 0.834, p=0.000). Meanwhile KPI and learning barriers are not significant in this prediction (p > 0.05) indicating there is no relationship between these two factors.

Table 4. Correlation Analysis

<table>
<thead>
<tr>
<th></th>
<th>KPI</th>
<th>Innovation characteristics</th>
<th>Adopters_characteristic</th>
<th>Learning_barriers</th>
</tr>
</thead>
<tbody>
<tr>
<td>KPI</td>
<td>Pearson Correlation</td>
<td>.028</td>
<td>.012</td>
<td>-.011</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.380</td>
<td>.696</td>
<td>.787</td>
</tr>
<tr>
<td>N</td>
<td>1000</td>
<td>999</td>
<td>999</td>
<td>594</td>
</tr>
<tr>
<td>Innovation_characteristics</td>
<td>Pearson Correlation</td>
<td>.028</td>
<td>.834**</td>
<td>.017</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.380</td>
<td>.000</td>
<td>.677</td>
</tr>
<tr>
<td>N</td>
<td>999</td>
<td>1000</td>
<td>1000</td>
<td>594</td>
</tr>
<tr>
<td>Adopters_characteristic</td>
<td>Pearson Correlation</td>
<td>.012</td>
<td>.834**</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.380</td>
<td>.000</td>
<td>.975</td>
</tr>
<tr>
<td>N</td>
<td>999</td>
<td>1000</td>
<td>1000</td>
<td>594</td>
</tr>
<tr>
<td>Learning_barriers</td>
<td>Pearson Correlation</td>
<td>-.011</td>
<td>.017</td>
<td>0.975</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.787</td>
<td>.677</td>
<td>594</td>
</tr>
<tr>
<td>N</td>
<td>594</td>
<td>594</td>
<td>594</td>
<td>594</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).

Quantitative analysis (Table 5) examines the effect of internet usage ability, innovation characteristics, and learning barriers on the adopter category. The regression analysis results show that the characteristics of innovation affect the adopter (Sig. = .000), while the other two variables have no effect (Sig. = 0.397 and 0.579).

Table 5. Regression Analysis Predicting Adopters’ Categories

<table>
<thead>
<tr>
<th>Independent variable</th>
<th>β</th>
<th>t</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>KPI</td>
<td>-.080</td>
<td>-.847</td>
<td>.397</td>
</tr>
<tr>
<td>Innovation characteristic</td>
<td>.933 s</td>
<td>35.011</td>
<td>.000</td>
</tr>
<tr>
<td>Learning barriers</td>
<td>-.056</td>
<td>-.555</td>
<td>.579</td>
</tr>
</tbody>
</table>

Notes: Dependent variable: Adopters’ category; *statistical significant at p<0.05; Adjusted R²= 0.675; F = 408.615, Sig = 0.000

3.2 Qualitative Result

While quantitative perspective tested hypotheses, the qualitative approach used in this theory tried to enrich previous theory and findings regarding technology applied in micro business. This approach emphasised that apart from innovation characteristic, internet capability
and learning barriers, micro business actually faced deeper and basic technical problems in order to commit digital business.

Interview result showed that most interviewees found difficulties in implementing technologies in their operational, as recorded:

“It is difficult to handle both offline and online order when we are not too attached to technology like smartphone and mobile application” (Respondent 7)

Apart from that, infrastructure and media were considered problems as well, as cited:

“Most roads are bumpy in my operational area, so it’s difficult to push my cart to the customer if they call”. (Respondents 1,3,4,5)

“I don’t have any smartphone”. (Respondents 8,9)

“Not all area has good Internet signal and If I have to go online, it means I have to always buy internet quota and it will cost me a lot” (Respondents 2,3,5,10)

Interview also resulted basic reason that avoid micro business to jump to digital business, such as lack of internal awareness, determination, need and have more external barriers to enter digital business. However, alike the quantitative analysis, they are more likely to be digitalized when most others do so.

Finally, the last aim of this research is to test TAM Extended model. That model explained the need of all elements as causes and keys to enter digital business. This TAM extended model includes entrepreneurship know-how, entrepreneurship character, competitive reason and government support as a complete solution to business digitalisation, as we can see in figure 1 below:

![Fig. 1. TAM Extended Model [21]](image)

Even though the model is considered as a complete solution to be digitalized, our research objects are not prepared for that. They do agree with all points, apart of competitive reason. Competitive reason as one substantial element in the model in fact considered by research objects in contrary way. They cited that:

“Too many competitors who sell the same items” (All respondents)

“There are numerous competitors who operate digitally” (Respondents 3,6,7,9, 10)

“Walking around neighborhood is more profitable than selling online which have to many competitors already” (All respondents)
Hence, when competitive reasons should have been a driver to jump to digital business, those mobile street vendors considered this point as challenge that need to be avoided. This is contrary to the framework used in this research where competitive reason is one of the reasons to jump to digital business.

Both qualitative and quantitative analysis above described that there is strong relationship between internet skill, innovation characteristic, learning barriers to adopter characteristic to digital business where the most significant element in innovation is trialability. Street vendors will pursue innovation when they see others commit to it and trialability becomes their first step into innovation. However, there is a high resistance for street vendors especially mobile ones to jump into digital business. This resistance is showed in qualitative approach done in this research. Unfamiliar to technology, competition, entrepreneurs’ character, infrastructure, media are reasons to avoid this modern business.

Mostly this happens due to the lack of education, limited access to gadget and lack of intention and determination to start a digital based business. These findings supported previous study that indicated strong relation between internet knowledge, benefit in committing to digital business and policy to adopter characteristics in successful SMEs shifting to digital business [8], [9], [12], [14], [16]. Barriers on innovation as learning barriers and lack of determination were also in line with previous literatures [7], [10].

4 Conclusion

Innovation is a substantial process in business stability and survival. Innovation is well known and well adapted in large organisations; however, it happens on contrary in Micro, Small and Mediums Enterprises (MSMEs), especially to micro businesses. Whether the importance of innovation is well described, the implementation of it in Micro is challenging. Research conducted to 1000 mobile street vendors across Central Java province, Indonesia indicated that to have adopter characteristics in technology and innovation, ones have to have innovation characteristics. It clearly showed in data analysis that innovation characteristic affect adopter characteristics, where other variables such as barrier of learning and internet skill do not have any effect on adopter characteristics.

Following to that, in-depth interviewed was conducting to selected interviewees and gained some substantial information. Firstly, media and infrastructure are considered as technical barrier and lack of internal awareness, determination, needs are considered as internal barriers to resist them to jump to digital business. Lastly, they considered competitive reason is a basic reason to avoid digital business. This finding is contrary to TAM extended model that used to test the finding, where competitive reason is one of main elements to jump to digital business.

This research findings are substantial in increasing the awareness of digitalization for micro entrepreneurs, to indicate the importance of digitalization to enhance the economy of the micro entrepreneurs and community, to show how to increase the digital knowledge of micro entrepreneurs, and lastly, to enlist how institutions/community can play a role to help improve the situation for the micro entrepreneurs.
References


Risk Taking Analysis of Beginner Investors in East Java Indonesia

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Abstract. This study is to determine financial behavior, especially risk taking of beginner investors in East Java, Indonesia. It is to test the variables of financial literacy, overconfidence and risk perception that affect the risk taking of beginner investors. The population in this study was all beginner investors in East Java, Indonesia. The sampling technique used was purposive sampling, using a sample of 150 respondents. This study used a survey and the analysis technique used was multiple linear regressions. The results showed that financial literacy had a significant positive effect on risk taking, overconfidence had a significant positive effect on risk taking but risk perception had a significant negative effect on risk taking. Based on the research results, it shows that financial literacy, overconfidence and risk perception are important factors that must be considered in making risk decisions, especially in the application of risk management.

Keywords: risk taking, beginner investors, financial literacy, overconfidence, risk perception

1 Introduction

The current situation and business environment has been unpredictable, complex and always changeable during the business process. This uncertain business process creates some risks that must be faced by business people. According to Cooper and Faseruk [1], risk is defined as an opportunity for the owner to lose from the results of a person's decision making. Normative decision theory assumes that people estimate the risks and rationally make choices in uncertainty conditions. Meanwhile, expected utility theory explains how someone should act when making decisions in uncertainty, that is, by maximizing their utility. Every investor, whether in risk averse or not, will always maximize the expected utility of his welfare. The role of expected utility can be used to introduce economic decision choices to uncertain circumstances. Decision making is done by measuring the obtained outcome with the probability level to calculate the level of expected utility of all available alternatives.

According to Frank [2] managers will choose less risk if being asked to take risks and given an advantage as a consequence. Risk behavior management, with consideration of utility, and propensity to accept risk, strategic risk is very important for investors to protect them from failing to invest. Based on risk expectations and preferences, the investors need to compare investment alternatives to others. This is in line with the research by Fiegenbaum and Thomas [3], which took a sample of company managers. With regard to efforts to minimize the risk in decision making, effective risk management is needed.
This study examines the influence of the variables of financial literacy, overconfidence, and risk perception to reduce the level of risk in risk taking, and to increase utility. The novelty of this research is that it examines the factors influencing risk taking; meanwhile the difference of this study from previous research is that it focuses on the population, namely beginner investors. The researcher is interested in examining beginner investors because they do not have experience and to know whether or not financial literacy, overconfidence and risk perception of investors affect risk taking or not. The researcher also wants to prove whether the heuristic theory has applied in Indonesia. As we know, heuristic theory explains a person's behavior in making decisions with a limited and short time, and there is only limited information in which all of them are in uncertain conditions (Ackert and Deaves) [4]. Furthermore, Tversky and Kahneman [5] proposed that people used a number of heuristics to reduce the assessment to make it simpler when they faced something difficult to assess probability or frequency. Ackert and Deaves [4] argues that making quick decisions involves elements of perception, memory, framing effects and the ease of processing information and the overloaded condition of informants.

The first variable in this study is financial literacy. Huston [6] argues that financial literacy is a component of human capital that can be used in financial activities to increase expected lifetime utility (behavior that increases financial welfare). According to Wang [7], there are two main things in the financial literacy literature to explain the relationship between financial literacy and risk taking in investment. First, good financial behavior is positively correlated with higher levels of financial literacy (Edmiston) [8]. Second, financial education and experience positively affect financial literacy and behavior (Lyons et al.,) [9]. The research results of Cavezzali et al., [10] explain that understanding the individual's low ability to diversify a portfolio can depend on general financial knowledge. Their research results show that financial literacy and financial education affect the dimension of risk taking (portfolio risk).

The second variable is overconfidence. Ackert and Deaves [4] state that overconfidence is the tendency for people to overestimate their knowledge, ability and accuracy of information, or being too optimistic about the future and their ability to control. Barber and Odean [11] stated that the high volume of trading is because of overconfidence. Investors’ overconfidence is assumed to overestimate the value of their personal information, and it causes them to trade too actively and, consequently, they make little profit. The results of the research by Nosic and Weber [12] show that overconfidence, namely miscalibration, has an effect on risk taking.

The third variable is risk perception. According to Sitkin and Weingart [13], risk perception indicates an individual’s assessment of risk measure in the uncertainty of investment returns. A high level of risk perception indicates a very high individual assessment of investment risk. This makes investors tend to assume that investment returns will be negative compared to the variability of actual investment returns. Kahneman and Tversky [14] argued that if an investor considers profit more than risk, the investor is a risk seeker. Cooper and Faseruk [1], in their research, stated that high-risk perceptions lead to low risk-taking behavior, and vice versa.

Based on the explanation, the research problems can be formulated as the followings:
- How does financial literacy affect the risk taking of beginner investors in East Java?
- How does overconfidence affect the risk taking of beginner investors in East Java?
- How does risk perception affect the risk taking of beginner investors in East Java?

This research is expected to be a reference for investors, especially beginner investors, as a basis for making decisions, especially those related to risk management. This research provides benefits in risk management by paying attention to financial literacy, overconfidence and risk perception, and risk taking in making investment decisions. In addition, the results of this study...
can assist investors to design strategic risk in decision making by considering the factors that affect risk taking so that they are able to carry out effective risk management.

2 Method

The research method belongs to quantitative research, which is used to answer the research problems and to test hypotheses based on previous theory and research. The quantitative research method is a research method based on the positivism philosophy.

2.1 Population and sample

The population in this study was all beginner investors in East Java, Indonesia. The number of populations is not certain. Ghozali [15] states that the number of samples in the estimation method using Maximum Likelihood (ML) requires a minimum sample of 100, but not above 400 or 500 samples. The samples collected and used in this study were 150 samples. The sampling technique used a purposive sampling method. The criteria used in this study are: (1) beginner investors are those who have been trading and investing their capital in trading shares on the Indonesia Stock Exchange, and (2) beginner investors are those who have been trading for less than a year.

2.2 Operational definition of research variables

The independent variables in this research include:

- Financial Literacy
  Financial literacy includes basic knowledge of finance, financial management, savings and investment, and risk management Kiliyanni and Sivaraman [16]. Indicators of financial literacy variables that refer to the research of Kiliyanni and Sivaraman [16], include: (a) basic knowledge, (b) money management, (c) saving and investment, and (d) risk management

- Overconfidence
  Ackert and Deaves [4] Overconfidence is the tendency for people to overestimate their knowledge, ability, and accuracy of information, or to be too optimistic about the future and their ability to control. The indicators of the overconfidence variable referring to the research of Khan, et al. [17], include: (a) relative financial domain optimism, (b) personal investment optimism, (c) illusion of control, and (d) better than average.

- Risk Perception
  According to Cooper and Faseruk [1], risk perception is a decision maker's assessment of the risks inherent to a situation. Indicators from risk perception variables referring to the research of Cooper and Faseruk [1], include: (a) ethical, (b) investment, (c) gambling, (d) healthy/ safety, (e) recreational, and (f) social item.

The dependent Variable in this research is risk taking. Risk taking is the behavior of investors in taking risks (Nosic and Weber) [12]. Indicators of risk taking variables which refer to the research of Weber, et al. [18], include: (a) ethical, (b) financial, (c) healthy/ safety, (d) recreational, and (e) social item.
2.3 Type and source of data

This research is an empirical study, which is a study of empirical facts obtained based on observation or experience. It used interval data type and a survey to get some responses from the questionnaire provided by the researcher. The data source used in this study was primary data, namely the data obtained from the original source (not through intermediary media). The primary data of this study were obtained through a questionnaire distributed to a sample of investors.

2.4 Procedure of data collection

This study used data collection techniques by providing a questionnaire, which was filled out by investors to find out their responses to the subject under the study. Respondents, in this case, were asked to fill out the questions or statements in the questionnaire.

2.5 Instrument testing

The instrument test includes two tests, namely the reliability test and the validity test. In this instrument testing, there were 20 respondents to be tested for reliability and validity.

2.6 Technique of data analysis

The data analysis technique used multiple linear regression analysis. This analysis is used to examine the effect of financial literacy, overconfidence and risk perception on the risk taking of beginner investors. Partial test or *t test* basically shows how far the influence of one independent variable individually in explaining the dependent one. Regression model used can be formulated by the following equation, see equation (1) for an example:

\[ Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e \]

Note:
- Y: Risk Taking
- X1: Financial Literacy
- X2: Overconfidence
- X3: Risk Perception
- \( \beta_1, \beta_2, \beta_3, \beta_4, \beta_5 \): Regression Coefficient
- e: Error

3 Results and discussion

3.1 Result

3.1.1 Instrument testing

In this study, the instrument was tested on 20 respondents first to assess the appropriateness of the statements in the questionnaire. Based on the results of the reliability test, it shows that
all variables pass the reliability test. It can be seen in Table 1 in which the Cronbach’s alpha value is above 0.7.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Literacy</td>
<td>0.701</td>
</tr>
<tr>
<td>Overconfidence</td>
<td>0.791</td>
</tr>
<tr>
<td>Risk Perception</td>
<td>0.837</td>
</tr>
<tr>
<td>Risk Taking</td>
<td>0.812</td>
</tr>
</tbody>
</table>

Table 1. The Result of Reliability Testing

<table>
<thead>
<tr>
<th>No</th>
<th>Variable</th>
<th>t account</th>
<th>Sig. P Value</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Financial Literacy</td>
<td>3.763</td>
<td>.000</td>
<td>Financial Literacy affects the risk taking of beginner investor</td>
</tr>
<tr>
<td>2</td>
<td>Overconfidence</td>
<td>2.853</td>
<td>.005</td>
<td>Overconfidence affects the risk taking of beginner investor</td>
</tr>
<tr>
<td>3</td>
<td>Risk Perception</td>
<td>-3.104</td>
<td>.002</td>
<td>Risk Perception affects the risk taking of beginner investor</td>
</tr>
</tbody>
</table>

Table 2. The Result of Multiple Linear Regression Test

The results of multiple linear regression statistical test show that financial literacy, overconfidence and risk perception factors affect the risk taking of beginner investors in East Java, Indonesia. The regression equation can be formulated as follows (2):

\[ Y = 0.756 + 3.763 X_1 + 2.853 X_2 - 3.104 X_3 + 0.640 \]  

(2)

Based on the research results shown by the equation above, the meaning of the equation is if the financial literacy variable is increased by one unit, it will increase risk taking by 3,763. If the overconfidence variable is increased by one unit, it will increase risk taking by 2,853. If the risk perception variable is increased by one unit, it will reduce risk taking by 3.104.
3.1.3 Determination testing

Based on the results of the study, it shows that the Adjusted R square has a value of 0.242. It means that the factors examined in this study including financial literacy, overconfidence and risk perception have an influence on the risk taking of beginner investors by 24.2%, while the remaining of 75.8% is influenced by other factors outside the model. This means that the results of the study statistically do not show the influence because the score is below 50%.

3.2 Discussion

The discussion of each factor affecting the risk taking of novice investors is as follows:

3.2.1 The influence of financial literacy on risk taking of beginner investors

The results show that financial literacy has a positive effect on risk taking. It means that if investors' knowledge of financial literacy is high, they are risk seekers (dare to take risks). The high-risk taking behavior of investors will be proven by investing in risky assets greater than the amount of investment in risk-free assets. In other words, the investors dare to invest in risky assets. On the other hand, the results of the research show that the lower the level of investor financial literacy, the lower the risk taking of investors. Investors who have low financial knowledge tend not to dare to choose risky investment options. The research results of Aren and Zengin [19] showed that if the level of financial literacy of investors is low, the investors prefer small risky investments. On the contrary, when the level of financial literacy increases, they tend to create portfolios or buy equity. The results of this study are consistent with the research of Wang, et al. [7], Carey, et al. [20], Cavezzali and Gardenal [10]. Good financial behavior is positively correlated with higher levels of financial literacy [8]

3.2.2 The effect of overconfidence on beginner investors risk taking

The results showed that overconfidence has a positive effect on risk taking, meaning that if the investors have a high level of overconfidence, they will be risk seekers (dare to take risks). The investors with high confidence of knowledge and information will have the courage to take risks (risk seekers). Conversely, if the lower the level of overconfidence, they will reduce the level of investor risk taking. Meanwhile, the investors who have low confidence in their information, they will not dare to take risks (risk averse).

This research is in accordance with the results of research by Odean [21], Odean [22], and Nosić and Weber [12]. Odean [21] argued that someone who is overconfident will be a risk seeker. The results of Odean [22] research showed that investors who are overconfident have a tendency to overestimate the accuracy of the information they have, so they become less careful and underestimate risks. It means that if an investor's level of overconfidence is higher, the investor will then be a risk seeker.

3.2.3 The influence of risk perception on risk taking of beginner investors

The results showed that risk perception has a negative effect on risk taking. It means that the higher the level of investor's risk perception, the lower the level of investor risk taking. This shows that if investors assess and perceive an investment as high, then in making decisions the
risk tends to be risk averse. Conversely, the lower the investor's risk perception level, the investor will increase the level of investor risk taking. It shows that if the investors assess and assume that investment is low, they will dare to take risks (risk seekers).

The results of this study are in line with the research by Traczyk, et al. [23], Nosić and Weber [12] and Cooper and Faseruk [1]. Traczyk, et al. [23] emphasized that the decision to engage in risky behavior or not is causally determined by risk perceptions. Furthermore, Nosić and Weber [12] argued that risk-taking behavior is determined by risk perception. The person's high perception of risk can cause him to tend to avoid risk, so he will choose to invest in risky assets with a small amount. Cooper and Faseruk [1] argued that high risk perceptions lead to low risk-taking behavior, and vice versa.

4 Conclusion

The results of this study indicate several things. First, the risk-taking model in this study is acceptable. The three hypotheses are all accepted. Second, the financial literacy variable gives the greatest effect compared to the overconfidence and risk perception variables on the risk taking of beginner investors. It shows that the investors financial knowledge and literacy will greatly influence their financial decision making. It is very important for them, especially beginners, to continue to improve their financial literacy, so that they will get maximum benefits in investing Kahneman and Tversky [24], proposed that to make decisions, in various situations, a person begins with a belief which is then adjusted to the information available to make a final decision. Third, risk perception factor also affects investors' risk taking followed by overconfidence. In accordance with the heuristic theory, an investor also considers experience, perception, memory, framing effect and ease of processing information. Fourth, investors who have good knowledge will become overconfidence so that they assess the risk is low, so that they dare to take high risk (risk seekers). This is in association with the heuristic theory, where investors make risk decisions based on the level of confidence they have. The results showed that they tend to make decisions quickly based on the level of confidence and experience they have.

The limitations of this research and future research developments are described as follows. First, this study only uses a portion of the investors in East Java, so the results of the study cannot be generalized to all investors in Indonesia. Second, this study only takes a population with a limit of beginner investors in stock investment, so it cannot represent investors in general. Whereas investment is not only investing in stocks, it can also be other investments, for example investments in the form of savings, deposits, bonds, mutual funds and other investments. Third, further research might be possible to develop studies on the factors that influence this risk taking by expanding the location, unit of analysis as well as developing research variables and indicators. Also, it can add other variables affecting risk taking, for example experience, risk preferences and other variables.

Acknowledgement

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References


Analysis of the use of Accounting Information in Micro, Small and Medium Enterprises (MSMEs) Salt Farmers in the Coastal Area of Rembang Regency

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Abstract. In contrast to social-emotional communication, the amount of information exchanged has a gap. Based on these findings, we recommend that future studies formulate specific guidelines for pharmacists for treating patients with chronic disease with a short duration. The rapid development of science and technology has various impacts on various aspects, effects to the competition in the business world is becoming tougher. Accounting information can help MSMEs in making economic decisions for the achievement and sustainability of the business. Rembang Regency has a large number and area of smallholder salt farming in the coastal area which has the potential to be developed. This study aims to analyze accounting information on salt farmers MSMEs in the coastal area of Rembang Regency. The education, accounting training, company age, and information technology of the firm owner will all be considered in the analysis of accounting information utilization. This study uses a quantitative approach with descriptive investigation. A questionnaire was used to collect data. Purposive sampling was used with a total sample of 100 salt farmers MSMEs, and the data was analyzed using multiple linear regression with the SPSS program. The findings revealed that the majority of salt farmer MSMEs utilized accounting data in their operations. According to the findings, business owners, accounting training, and information technology all have an impact on the usage of accounting data.

Keywords: Accounting information systems, salt farmers, MSMEs

1 Introduction

The rapid advancement of science and technology has a wide range of consequences. One notable result is that corporate competition is growing more intense. Various sectors and business sizes are affected by this rivalry. Accounting data can assist MSMEs in making economic decisions that will help them achieve business success and sustainability. Rembang Regency has a large number and area of smallholder salt farming in the coastal area which has the potential to be developed. Salt is a local potential in Rembang Regency which has an important role in contributing to regional income which is quite large.

Small and medium businesses (SMEs) play a critical part in the nation's economic development and prosperity. According to data from Indonesia's Ministry of Cooperatives and SMEs, Indonesian MSMEs donated up to Rp. Indonesia's GDP is $8,573.9 trillion (at current prices). In 2018, Indonesia's GDP was Rp. MSMEs additionally employ 116,978,631 individuals, or 97 percent of the total volume; Indonesian workers contributed 57.8% to GDP
in 2018 (MSMEs and Large Units). Until 2018, there were 64,194,057 Indonesian MSMEs, accounting for 99.99 percent of the country's total business units (Ministry of Cooperatives and SMEs, 2018). This percentage is expected to continue to increase in the coming years due to the improving economic growth in Indonesia. The tighter competition between MSMEs and large companies, MSMEs must seek competitive advantages that can help them minimize costs and maximize profits.

Explained that finance is a common problem faced by everyone. Everyone has to do with money, both as married individuals and unmarried individuals, individuals and companies. Often problems arise how to manage the finances that we have. Generally, the problem is not in the lack of income, but in the wrong habits of managing finances. Various kinds of other limitations faced by MSMEs ranging from educational backgrounds that do not know accounting or recording procedures, insufficient funds to hire accountants or buy accounting software to facilitate the implementation of accounting bookkeeping [1]. Furthermore, efforts to develop MSME firms confront a number of challenges, including a lack of education, a lack of understanding of information technology, the size of the business, and the lack of financial reporting reliability in the MSME entrepreneur environment. The inability to provide and use accounting information is a major element that causes challenges for small and medium-sized businesses and leads to their failure to grow [2]. From a management standpoint, the inability to provide and use accounting data is a flaw. This flaw is the primary reason why MSMEs fail to grow their enterprises. The capacity of the owner to produce and use accounting information is strongly reliant on his or her ability to use accounting techniques. Small businesses can be jeopardized by a lack of financial knowledge in management [3]. Deteriorating financial situations and a lack of accounting records will limit the company's ability to get vital information, making it more difficult for it to grow and even causing it to fail. Accounting information is a tool that users of accounting information, particularly business professionals, use to make decisions [4]. Accounting data is utilized for strategic planning, management oversight, and operational oversight. Statutory accounting information, budget accounting information, and supplementary accounting information were employed in this study based on the benefits to the users.

Previous academics in Yogyakarta did research on the impact of accounting information on small and medium enterprises. According to the Accounting Information System (AIS), Mind Your Own Business (MYOB), the majority of Small and Medium Enterprises in Yogyakarta have employed it in their operational activities [5]. The utilization of accounting information for SMEs in Yogyakarta is influenced by manager / owner education and business scale, but tenure in managing the company, company age, and manager / owner accounting training have no effect. The educational background of its management will also have an impact on their financial behavior. The utilization of accounting data is influenced by education level, firm size, length of business, and educational background. Simultaneously, it demonstrates that the usage of accounting information is influenced by the amount of education, educational background, firm tenure, business scale, and accounting understanding [2]. Based on the aforementioned issue, MSME actors in terms of accounting, as well as their developments, rely on current accounting data. So that it can make better decisions in the future. The researchers did a study named "Analysis of the Use of Accounting Information in Micro, Small and Medium Enterprises (MSMEs) Salt Farmers in the Coastal Areas of Rembang Regency" based on the importance of MSME accounting information. This study intends to assess the use of accounting information for salt farmers MSMEs in coastal areas of Rembang Regency, in accordance with the context and problem formulation. The education, accounting training, company age, and
information technology of the firm owner will all be considered in the analysis of accounting
information utilization.

2 Method

2.1 Population and sample

The participants in this study were salt farmers who owned MSMEs in Rembang Regency's
coastal area. In Rembang Regency, there are 100 MSMEs salt farmers. The purposive sampling
approach is used in this study, which is a sampling methodology with particular considerations
directed at the criteria given, namely: 1) A registered MSME salt farmer in the Rembang
Regency Department of Marine Affairs and Fisheries, 2) MSMEs in the Rembang Regency area,
3) MSMEs that are still active, 4) Registered in the Rembang Regency Cooperatives and
UMKM Office, 5) Already established for 5 years, 6) Have a turnover of IDR 500,000 per day
or IDR 10,000,000 per month.

2.2 Types and data collection

Primary data is the sort of data used in this study. Using a questionnaire survey approach
to collect the data needed to support this research. A questionnaire survey is a type of survey
that involves the use of a research questionnaire. For a complete investigation of the
characteristics of the population under study, the questionnaire is an effective data collection
method. The research questionnaire was sent directly to salt farmer MSMEs in Rembang
Regency's coastal area.

2.2.1 Hypothesis testing

2.2.1.1 Validity test

The validity test is said to be valid if the significance value is 0.05 or 5%, which means that
the data is certified legitimate if the significance value is 0.05 [6].

2.2.1.2 Reliability test

Reliability is a tool for assessing the validity of a questionnaire, and it serves as a predictor
of the variables or constructs that will be studied. The level of stability or steadiness of a
measuring device when assessing a symptom or occurrence is referred to as the reliability test.
If a construct or variable delivers > 0.70 or 70%, it is said to be trustworthy [6].

2.3 Classic assumption test

The classical assumptions inherent in the regression model equation are also tested in this
study so that the data utilized to test the hypothesis is free of classical assumptions [7]. These
tests include [6]:
The purpose of the normality test is to see if the regression model, the dependent variable (dependent), and the independent variable (independent) all have a normal distribution. The Kolmogorov-Smirnov (K-S) normalcy test was utilized in this investigation, which looked at the significant probability of the variables. The variable is regularly distributed if the probability is significant > 0.05.

The purpose of the multicollinearity test is to see if the regression model established a relationship between the independent variables (independent). There should be no correlation between the independent variables in a decent regression model (independent). If the tolerance value is greater than 0.10 and the VIF value is less than 10, the regression model is multicollinear.

The autocorrelation test is used to see if there is a link between the confounding error in period t and the error in period t-1 in a linear regression model. The regression results are deemed to be spared autocorrelation if the Durbin Watson value is between du d 4-du.

The heteroscedasticity test determines whether there is an inequality of variance between the residuals of one observation and the residuals of another in the regression model. If the significance value is more than 0.05, the model is not heteroscedastic.

2.4 Data analysis method

This research data analysis method uses the form of multiple linear regression equations which are formulated based on the developed hypothesis, namely as follows [8]:

\[ Y = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon \]


3 Results and Discussions

3.1 Results

3.1.1 Classic assumption test

3.1.1.1 Multicollinearity

The VIF value for all variables from the business owner's education, company age, accounting training and information technology showed greater than the tolerance value. With a VIF value greater than the tolerance value, the analyzed data is free from multicollinearity.
3.1.1.2 Autocorrelation

Table 1 show in the autocorrelation test Durbin Watson value.

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>RStd. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.751a</td>
<td>.565</td>
<td>.546</td>
<td>1.849</td>
<td>1.976</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Business Owner Education, Company Age, Accounting Training, Information Technology
b. Dependent Variable: Use of Accounting Information

Source: processed primary data, 2020

The Durbin Watson value is 1.976, this value when seen in the Du and Dw tables is greater, so that with a larger Dw value it can be said that this analysis data is free from autocorrelation.

3.1.1.3 Heteroscedasticity

Heteroscedasticity testing is performed by plotting the residuals against the anticipated values of the standardized dependent variable on a Scatterplot (distribution path). As can be seen in the diagram above, the point distribution does not follow a specific pattern or path, implying that heteroscedasticity does not exist or, in other words, homoscedasticity does. In this model, traditional heteroscedasticity assumptions are met, resulting in a model that is heteroscedasticity-free.

3.1.1.4 Normality

The Normal P-P Plot graphic below shows the results of the normality test. It's worth noting that the normality assumption referred to in the standard OLS assumption refers to the residual (data) created by a normally distributed linear regression model, not the independent or dependent variable. The distribution of points in the graphic can be used to determine if a (data) residual is normally distributed or not using the Normal P-P Plot technique. The residual (data) is considered to be normally distributed if the distribution of the points is close to or dense on a straight line (diagonal), but it is not normally distributed if the distribution of the points is distant from the line.

Because the distribution of points in the Normal P-P Plot image above is near to a straight line, the residual (data) can be assumed to be normally distributed. The OLS technique yields findings that are consistent with traditional linear regression assumptions.

3.1.2 Model feasibility test

3.1.2.1 Test of the reliability of the model (test f)

The model reliability test, also known as the model feasibility test or the F test (some also refer to it as the simultaneous model test), is the first step in determining whether or not a regression model is practicable. The term "eligible" ("reliable") refers to the estimated model's suitability for explaining the influence of the independent variables on the dependent variable.
The F test gets its name from the F distribution, which has testing criteria that are similar to One Way Anova.

The F test results can be seen in the table test of the model's reliability show in Table 2. The value of the prob. The number of Fs is displayed in the last column (sig.)

Table 2. Test of the reliability of the model (test f)

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>4</td>
<td>106.129</td>
<td>31.338</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>95</td>
<td>3.387</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>99</td>
<td>3.387</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Use of Accounting Information
b. Predictors: (Constant), Business Owner Education, Company Age, Accounting Training, Information Technology

Source: processed primary data, 2020

The value of the prob. The value of F count (sig.) in the table above is 0.000, which is less than the 0.05 significance level, indicating that the estimated linear regression model is appropriate for explaining the effect of accounting information on the development of information technology.

3.1.2.2 Regression coefficient test (test)

The purpose of the t test in multiple linear regression is to see if the parameters (regression coefficients and constants) used to estimate the equation / multiple linear regression model show in Table 3 are valid. The aim is that these factors can explain how independent variables influence the dependent variable.

Table 3. Result of Multiple Regression Test

<table>
<thead>
<tr>
<th>No</th>
<th>Variable</th>
<th>T count</th>
<th>Sig P Value</th>
<th>Regression Test’s Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Owner Education</td>
<td>4.580</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Company Age</td>
<td>-2.163</td>
<td>.033</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Accounting Training</td>
<td>6.239</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Information Technology</td>
<td>1.579</td>
<td>.001</td>
<td></td>
</tr>
</tbody>
</table>

Constant = 929
Adjusted R Square = 0.551

Source: processed primary data, 2020

The t test, like the F test, can be easily formed conclusions with the help of the SPSS application. If the value of prob. t count (SPSS output shown in column sig.) is less than the error level (alpha) 0.05 (determined), the independent variable (from the t count) has a significant effect on the dependent variable, whereas if the value of prob. t count is greater than the error rate of 0.05, the independent variable has no significant effect on the dependent variable. The t count of the four independent variables (owner education, company age, accounting training, and information technology) is 0.001, which is less than 0.05, indicating that the four independent variables have a significant effect on the variable use of accounting information at alpha 5%, or in other words, the four independent variables have a significant effect on the variable use of accounting information.
3.1.2.3 Coefficient determination

The coefficient of determination show in Table 4 explains the variation in independent variable influence on the dependent variable. It's also known as the fraction of all independent factors’ influence on the dependent variable. The R-Square value or the Adjusted R-Square can be used to calculate the coefficient of determination.

![Table 4. Coefficient Determination](image)

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.754</td>
<td>.569</td>
<td>.551</td>
<td>1.840</td>
<td>1.947</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Business Owner Education, Company Age, Accounting Training, Information Technology  
b. Dependent Variable: Use of Accounting Information  

Source: processed primary data, 2020

The t test, like the F test, can be easily formed conclusions with the help of the SPSS application. If the value is doubtful, If the t count (SPSS output in column sig.) is less than the error level (alpha) 0.05 (specified), the independent variable (from the t count) has a significant effect on the dependent variable, however if the value of prob. When the t count exceeds the error rate of 0.05, the independent variable is said to have no effect on the dependent variable. The value of the prob. The t count of the four independent variables (owner education, company age, accounting training, and information technology) is 0.001, which is less than 0.05, indicating that the four independent variables have a significant effect on the variable use of accounting information at alpha 5%, or in other words, the four independent variables have a significant effect on the variable use of accounting information.

The Adjusted R Square value of 0.551 obtained from this research reveals that the factors employed in this investigation have a 55.1 percent effect, while the remaining 44.9 percent is influenced by variables outside of this study. Meanwhile, the R value of 0.754 suggests that there is a substantial correlation between all of the variables in this study.

3.2 Discussion

The first hypothesis, as shown in table 4, argues that the owner's degree of education has a beneficial impact on the usage of accounting information in supported small and medium firms. This suggests that the owner's high degree of education has an impact on how accounting data is used by MSME owners. Owner education, company size, company age, and accounting training all have a beneficial impact on accounting data utilization [9].

The second hypothesis, as indicated in table 4, argues that business age has a beneficial impact on the usage of accounting data in supported small and medium firms. This indicates that the company's age, as measured by the number of years it has been in business / the number of years it has been in business (MSME), has an impact on the usage of accounting data required by the UMKM's owner. Owner education, company size, company age, and accounting training all have a beneficial impact on accounting data utilization [9]. The amount of time spent on business has an impact on how much accounting data is used. The level of accounting information preparation and use is unaffected by the company's age [10].

The third hypothesis states that accounting training has a positive effect on the use of accounting information in supported small and medium enterprises, as shown in table 1. This
means that accounting understanding is proxied by increased understanding is good for MSMEs because making financial reports according to SAK can make it easier for companies, such as knowing the company's performance and wealth. The ability to understand both meaning and meaning in studying a material is understanding [11]. Accounting training is considered to influence the use of accounting data if a high frequency of accounting training is accompanied by a high use of accounting data in business activities. This is because accounting education is thought to have the potential to improve MSME players' perceptions of financial management. Accounting education has an impact on how accounting data is used [1].

As stated in table 1, the fourth hypothesis states that information technology has a favorable impact on the usage of accounting data in supported small and medium enterprises. This indicates that information technology has a considerable positive impact on SMEs' utilization of accounting data. Owner. Work may be completed on time when SMEs use IT for business operations, and IT users can compare pricing with competitors, continue to innovate their products, and compare prices with competitors. Information technology has a favorable impact on accounting data usage [12]. Accounting technology has an impact on the commercial success of MSMEs' superior products [13].

4 Conclusion

From the analysis, it is found that business owners, accounting training, and information technology have an influence on the use of accounting information in salt farmer businesses in coastal areas of Rembang Regency. There is one variable that has the opposite effect on the use of AIS, namely the age of the company. For further researchers, it is hoped that it can expand the object of research and add research variables related to the use of accounting information for small and medium micro enterprises.

Acknowledgement

Thank you very much to STIE YPPI Rembang, and all those who have helped the completion of this article.

References

Interaction Exchange in Dispensaries: An Observation on the Chronic Disease Management Program

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Abstract. The number of chronic diseases in Indonesia has increased from year to year. One of the essential elements in managing chronic disease is the provision of adequate drug information. So pharmacists need to have excellent and practical communication skills when delivering drugs to chronic disease patients. This paper presents a process of exchange of interactions between pharmacists and patients in dispensaries. Researchers have collected data by cross-sectional observation in two primary health care. A total of 48 patients were involved in this study. The process of coding the interaction exchange has used the Roter Interaction Analysis System (RIAS). An interesting finding in the study was that most patients only took time from one minute when interacting with staff dispensaries. The mean number of interactions representing the task-focused function did not differ significantly between the two dispensaries during that duration. In contrast to social-emotional communication, the amount of information exchanged has a gap. Based on these findings, we recommend that future studies formulate specific guidelines for pharmacists for treating patients with chronic disease with a short duration.

Keywords: Primary Health Care, Roter Interaction Analysis System, Task focused, Socio-emotional

1 Introduction

The prevalence of hypertension and type 2 diabetes mellitus (T2DM) has increased in Indonesia. The hypertension population was 25.8% (2013), rising to 34.1% (2018). Likewise, the T2DM population was rising from 6.9% (2013) to 8.5% (2018) [1]. Through the chronic disease management program (Prolanis), they obtain health services proactively from health facilities that were integrated with the national health insurance as called by BPJS [2].

Prolanis participant adherence in taking medication is the key to successful therapy management [3]; [4]. Their adherence to therapy is closely related to drug counselling services by pharmacist [5]-[8].

Sari, Putra, & Masran state that patients with good knowledge have a high need for drug information. Some patients tend to hesitate to ask questions to pharmaceutical personnel [10]. One reason is the lack of perceptions of patients towards health workers due to poor communication [11].
Prolanis participants have increased from year to year. Some researchers have concluded the relationship between drug information services on the quality of therapy management output of prolanis participants. However, many prolanis participants are still constrained in obtaining optimal drug information services. The author considers it necessary to formulate a good communication model in therapy management. To initiate the development roadmap. Through this paper, the authors identify the interaction process in dispensaries that involves pharmacist and prolanis participants.

2 Method

This research took place at two primary health care (PHC), Unit Tempuran and Unit Muntilan 2. Both are first-level health facilities in Magelang Regency-Indonesia, integrated into the national health insurance service (BPJS).

The cross-sectional observations have taken place while participants were visiting each PHC on their monthly schedule (February 2020). Through an audio recording device, we recorded all interactions that took place in a pharmaceutical service expressly provided for prolanis participants. Forty-eight participants (26 members of Unit Muntilan and 22 members of unit Tempuran) were involved in the study. All steps in the series of methods have received approval from the head of the Magelang district health office, pharmaceutical personnel and prolanist participants involved in the research.

All recordings are then transcribed in text. Furthermore, we analyzed it according to the Roter Interaction Analysis System (RIAS) instrument [12]. The procedure is carried out under the fifth author's direction, as an experienced and verified researcher who has successfully carried out this method in previous research [13], [14]. The coding results were descriptively presented in two types to the communication functions: task-focused and socio-emotional.

3 Results and Discussion

3.1 Result

Based on our observations, we reported that most prolanis participants only took a short time when interacting with staff dispensaries. The average interaction time in PHC Tempuran was only 35 seconds, along with in PHC Muntilan 2 for 40 seconds (figure 1). During the duration, the mean number of interactions representing the task-focused function was balanced in both of PHC, amounting to 5.7 utterances. In contrast to socio-emotional communication, the amount of information exchanged has a gap. The mean interaction in the PHC Tempuran was less with 4.12 utterances, whereas, in PHC Muntilan 2, the mean was 6.64 utterances which were moreover (figure 1).
Fig. 1. Mean duration and utterances of interactions exchange (IE) between patient and pharmacist in dispensaries.

Table 1 showed the utterances domains involved in exchange interactions. We are interested in writing down the number of interactions that are predominantly interchangeable. What is at the top is precisely biomedical information that is not related to the therapeutic regimens. This statement is confirmed by giving information with 159 utterances and pharmacists' efforts in gathering data with 39 closed questions and 33 open questions. The domains are evenly distributed in the two dispensaries.

The most frequent interaction with therapeutic regimens was the provision of information with a total of 17 utterances. Moreover, therapeutic domains are rarely explored with either closed-ended questions (6 utterances), or open-ended questions (3 utterances).

Table 1. The frequency of utterances representing a task-focused interaction

<table>
<thead>
<tr>
<th>No</th>
<th>Variables of Interaction Exchange</th>
<th>PHC Muntilan 2 (n=22)</th>
<th>PHC Tempuran (n=26)</th>
<th>Total (n=48)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Give information on other therapeutic regimen</td>
<td>79 utterances</td>
<td>80 utterances</td>
<td>159 utterances</td>
</tr>
<tr>
<td>2.</td>
<td>Ask closed-ended question on other therapeutic regimen</td>
<td>20 utterances</td>
<td>19 utterances</td>
<td>39 utterances</td>
</tr>
<tr>
<td>3.</td>
<td>Give information on therapeutic regimen</td>
<td>13 utterances</td>
<td>20 utterances</td>
<td>33 utterances</td>
</tr>
<tr>
<td>4.</td>
<td>Ask open-ended question on therapeutic regimen</td>
<td>7 utterances</td>
<td>10 utterances</td>
<td>17 utterances</td>
</tr>
<tr>
<td>5.</td>
<td>Ask closed-ended question on therapeutic regimen</td>
<td>3 utterances</td>
<td>3 utterances</td>
<td>6 utterances</td>
</tr>
<tr>
<td>6.</td>
<td>Ask open-ended question on therapeutic regimen</td>
<td>2 utterances</td>
<td>1 utterance</td>
<td>3 utterances</td>
</tr>
<tr>
<td>7.</td>
<td>Give Orientation/Instruction</td>
<td>1 utterance</td>
<td>4 utterances</td>
<td>5 utterances</td>
</tr>
<tr>
<td>8.</td>
<td>Ask for understanding</td>
<td>No utterance</td>
<td>5 utterances</td>
<td>5 utterances</td>
</tr>
<tr>
<td>9.</td>
<td>Ask for permission</td>
<td>No utterance</td>
<td>2 utterances</td>
<td>2 utterances</td>
</tr>
<tr>
<td>10.</td>
<td>Bid for repetition</td>
<td>1 utterances</td>
<td>1 utterance</td>
<td>2 utterances</td>
</tr>
<tr>
<td>11.</td>
<td>Back Channel</td>
<td>No utterance</td>
<td>1 utterance</td>
<td>1 utterance</td>
</tr>
</tbody>
</table>
Other domains (table 1) that are slightly discussed are those related to orientation (5 utterances), ask for understanding (5 utterances), ask for permission (2 utterances), bid for repetition (2 utterances) and only one utterance on the backchannel.

A report on interactions that represent socio-emotional functions is presented in Table 2. We are amazed to see that this interaction is dominated by a show of agreement (understanding) with 94 utterances and approval direct with 84 utterances. Efforts to ensure patients' identity in pharmaceutical services are indicated by the number of personal remarks, as many as 66 utterances, which is evenly distributed in both dispensaries.

Among the three dominant domains, what appears to be a gap in the two dispensaries is the approval performance. Prolanis members in PHC Tempuran are more expressive in the making than the members in PHC Muntilan 2.

<table>
<thead>
<tr>
<th>No</th>
<th>Variables of Interaction Exchange</th>
<th>PHC Muntilan 2 (n=22)</th>
<th>PHC Tempuran (n=26)</th>
<th>Total (n=48)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Show agreement or understanding</td>
<td>44 utterances</td>
<td>50 utterances</td>
<td>94 utterances</td>
</tr>
<tr>
<td>2</td>
<td>Show approval-direct</td>
<td>27 utterances</td>
<td>57 utterances</td>
<td>84 utterances</td>
</tr>
<tr>
<td>3</td>
<td>Personal remarks</td>
<td>33 utterances</td>
<td>33 utterances</td>
<td>66 utterances</td>
</tr>
<tr>
<td>4</td>
<td>Laughs, tells jokes</td>
<td>1 utterance</td>
<td>5 utterances</td>
<td>6 utterances</td>
</tr>
<tr>
<td>5</td>
<td>Shows disapproval-direct</td>
<td>1 utterance</td>
<td>No utterance</td>
<td>1 utterance</td>
</tr>
<tr>
<td>6</td>
<td>Back channel responses</td>
<td>1 utterance</td>
<td>1 utterance</td>
<td>2 utterances</td>
</tr>
</tbody>
</table>

There are not many attempts at cracking the situation through talks of jokes or laughs (6 utterances). Among patients and staff, there were also almost no statements of denial (1 utterance). Backchannel expression was responded to only once in each dispensary.

3.2 Discussion

In previous publications, we have described pharmacists' readiness and responsiveness in providing excellent service in dispensaries[15], [16]. This paper presents the facts of the interactions exchange at PHC. This data is notable for three reasons. First, this is the roadmap opening gate for developing a communication model in Indonesia pharmaceutical services that we are currently doing. Second, identifying communication using RIAS instruments in a pharmaceutical context has never been done in a PHC setting. Third, we studied populations with chronic diseases who regularly attend health system services, including pharmaceutical services.

Publications on drug information services, particularly in the setting of PHC in Indonesia, evaluate drug administration, which includes services regarding name, dose, time, frequency and similar matters regarding the procedure for taking drugs [17]–[19]. Although they have proven that aspects of drug information services are beneficial for patients in terms of compliance, achieving therapeutic results, improving knowledge, to satisfaction [4], [20]–[25]. However, we consider that a more detailed stage is needed to reconstruct what has happened in dispensaries' interactions so far. For this reason, we use the RIAS instrument in completing this research design.

Our findings confirm that both dispensaries have a balanced number of interaction exchanges on the task-focused aspect. It is an effort to ensure that the patient's steps in taking drugs are safe. Moreover, the pharmacy staff is responsible for helping patients solve problems
related to drugs. In the Indonesian context, this is the case in pharmacy and medical services. Sure, the minimum standard for providing health services information is information about biomedicine [26]. Regarding the pharmacy, task-focused. In our findings, we highlighted that much interaction spent demanding complete insurance administration. So we think it is evident to explain the many frequencies of interactions exchange in another therapeutic regimen.

However, the mean of frequencies to the socio-emotional interaction has gaps between the two dispensaries. Even so, Table 3 confirms that a high gap occurs in the approval performance. The author considers this is not worthwhile. What should be appreciated is the high dealing expression between patients and pharmacists. It shows that they are in the form of agreement, understanding or approval. Almost no disapproval performances between them also supported this. Even so, the socio-emotional has improved engagement between patients and pharmacy staff [27]. In other findings, the socio-emotional interaction is even more practised by patients [14].

Beyond our expectations, it turns out that prolanis members spend less than 1 minute interacting in dispensaries. It is surprising. In another setting, They take 20-30 minutes to maximize counselling in each meeting [28]. Other opinions express that the setting can be the cause of less than optimal communication [29]. The researchers' observations show that the PHC has met the waiting room standards according to the regulations [30]. Even so, patients encounter several challenges in accessing services at PHC. Patients need to spend plenty of time queuing before facing a doctor. Then queue while waiting for a call from the pharmacy service. Many of them thought about going home immediately after receiving the medicine. As for the prolanis members we observed, they were already familiar with the drugs they routinely took for a long duration.

Our experience shows that patients with chronic disease who have been taking medication for a long duration need a touch of socio-emotional communication as motivation in undergoing therapy [31]. Research on pharmaceutical communication should be developed further to intervene in the dimensions of patient quality of life or the problem of drug therapy intervention as we have partly investigated [32], [33]. The result of this research is the incomplete puzzle pieces. We will immediately submit research data on another setting as drugstores and hospitals. Our steps have strong analytical materials to develop a suitable communication model to be a reference for pharmacists in Indonesia.

4 Conclusion

Our findings confirm that prolanis members spend less time interacting with pharmacists. The prolanis participants were familiar with the issues related to the drugs they were taking. We recommend that future studies formulate specific guidelines for pharmacists for treating patients with chronic disease with a short duration.

Acknowledgement

We would like thanks to the Research Division of Universitas Muhammadiyah Magelang through the funding research grant scheme of institutional vision revitalization in 2019.
References

Quality of Life Profile Based on Controlled First-line Antiretroviral Treatment in Patients with HIV Infection

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Abstract. Many publications have explored the various aspects of the patients with HIV characteristics associated with quality of life. Our study aims to present data on the quality of life of HIV patients based on the combination antiretroviral treatment they are currently undergoing. This research is the result of observations at KRT Setjonegoro Regional Public Hospital, Wonosobo, Indonesia. The assessment used the Indonesian version of the WHOQOL-HIV Bref instrument. Retrieval of study data included 63 ambulatory patients with HIV taking controlled first-line antiretrovirals. To improve QoL scores, practitioners need to focus on specific interventions based on combination antiretroviral regimens.

Keywords: WHOQOL-HIV Bref, Ambulatory Patients, Hospital

1 Introduction

Quality of life (QoL) assessment in patients with HIV initially focused on improving conditions prone to isolation and stigma [1]–[3]. Furthermore, the QoL approach developed as an approach to make HIV patients happy and prosperous, such as the elderly [4], low income [4]–[6], unemployment, to people who do not have a spouse [5], [6].

Previous publications have highlighted the QoL gender-based for patients with HIV. Women need to get support from health workers [7]. Practitioners who manage them have also received recommendations to pay attention to groups' psychosocial aspects with alcohol disorders [8]. Various publications have even highlighted the importance of health workers managing the welfare of those who have not been able to achieve optimal CD4 cell counts [9]–[11].

Furthermore, previous researchers have suggested that a standard happiness intervention is a strategic measure to increase QoL [12]. Technically, providing easy access to therapy is undoubtedly a welfare privilege for HIV patients [13], [14]. The issue of therapy adherence is closely related to a good QoL score [9], [13], [14].

We are raising an issue that previous researchers have rarely studied. As short as we have reviewed, it is not easy to find a publication that provides a quality-of-life profile based on the antiretroviral regimen. This paper wanted to pinpoint the weak points of quality of life in our study subjects with various variants of the combination antiretroviral they were undergoing.
2 Method

All research protocols have received approval from the Faculty of Medicine's Ethics Committee, Gadjah Mada University (KE/FK/0217/EC/2019). The research took place at the KRT Setjonegoro Hospital in March-April 2019. Data collection was carried out by cross-sectional observation. We have obtained a sample size using non-probability sampling. All subjects involved in this study were ambulatory patients with HIV taking controlled antiretrovirals for at least six months. We limited the involvement of participants who were 15 years of age and on first-line antiretroviral therapy. We ensured that all study subjects had signed informed consent that they understood. Measurement of quality of life used the Indonesian version of the WHOQOL-HIV BREF instrument [22]. The research results are presented descriptively by cross tabulating with SPSS.

3 Results and Discussion

3.1 Results

We have balanced the proportion of our study subjects' characteristics based on gender (male; 51.5%) along with people with a spouse or single (50%). Based on age, the majority were in the range of 20-39 years (80%). Half of the research subjects had taken the secondary level of education (50%) show in Figure 1.

![Figure 1. The proportion of the characteristics of research subjects involved in the study](image)

The average value of the quality of life of the research subjects is as listed in Figure 2. The highest average score is the social relationship domain (15.45). The lowest mean score is the domain environment (14.43).
We have highlighted several weak points of our subjects' quality of life (figure 3). The presenting data are profile values below the average for each part (see figure 2). Patients with zidovudine-lamivudine-efavirenz seemed to suffer more in aspects of physical (14.8), psychological (13.6), social relationships (14.6), and environment (13.6). Patients with Tenofovir-Lamivudine-Efavirenz had a poor quality of life on physical aspects (14.79), level of independence (14.79), and spirituality (14.29). Patients with Tenofovir-Emricitabin-Efavirenz were weak in physical quality (14.67), psychological (13.6), level of independence (15), and spirituality (14). Patients with zidovudine-lamivudine-nevirapine suffered at the level of independence (14.88) and social relationships (14.92).

3.2 Discussion

QoL assessment is an alternative clinical outcome parameter for chronic, even barely curable disease, especially in patients prone to stigmatization [23]. For practitioners, QoL assessment is an essential source of information for evaluating their services [24]. It forms the basis of interventions to improve the well-being, social functional status, and environment of
HIV patients [25]. This study is our effort to continue the consistency of research on the scope of quality of life and the perspective of people taking medicines [26]–[28].

The WHOQOL-HIV Bref instrument used in the measurement was applicable to evaluate physical, psychological, social, and spiritual [18], [29]. Many investigators in various countries have published the results of testing the validity and reliability of WHOQOL-HIV Bref with various characteristics of patients with HIV [15], [18], [22], [25], [29].

Previous publications have clearly stated that ease of patient access to antiretrovirals is an enhancer of the patients' QoL [13]. This ease of access leads to high adherence to therapy [9], [11], [13]. However, a good QoL, such as adequate self-confidence and spirituality, is the basis for patients to continue therapy [10], [20].

Our previous report showed that antiretroviral treatment in HIV patients complied with national guidelines [30], [31]. The primary choice of antiretroviral combinations is Tenofovir/Lamivudine (or Emricitabine)/Efavirenz. The Tenofovir/Lamivudine/Efavirenz combination preparations are available in fixed-dose combinations. The group of patients with chronic diabetes, uncontrolled hypertension, and renal failure (creatinine clearance <50 ml/min) should avoid tenofovir. Patients with hemoglobin levels <10 g / dL were unable to start zidovudine therapy [31].

Quality of life cross tabulation based on antiretroviral combinations is an uncommon topic. These results can predict practitioners' efforts to improve aspects of the patient's quality of life. Unfortunately, we can only present quantitative data with limited sample size. Even so, we invite further researchers to investigate further with a larger population. Neither is the exploration of causality qualitatively. We hope that the effect of quality-of-life scores based on combination therapy has an adequate explanation. It is appropriate that we have studied the potential for interactions using several drug combinations. The effect of drug interactions on quality of life is also an exciting theme for further study.

4 Conclusion

Practitioners need to take the physical, psychological, social, and environmental aspects of patients who undergo zidovudine-lamivudine and efavirenz. In comparison, patients with zidovudine-lamivudine-nevirapine management should focus on the level of independence and social relationships. Patients with Tenofovir-Lamivudine-Efavirenz need to receive special treatment on physical, level of independence, and spirituality. Finally, in patients with Tenofovir-Emricitabin-Efavirenz, they needed to have physical, psychological, level of independence, and spirituality improvements.

References


Millennials Attitude and Knowledge to Use Hand Sanitisers During the Covid-19 Pandemic

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Abstract. In humans, the coronavirus can cause respiratory tract infections which are generally mild, like flu from the symptoms. The general public thinks it is only a common cold. However, for health workers, this virus is classified as dangerous and deadly. The government provides preventive steps to stop the spread of COVID-19, namely washing hands. This hand sanitiser product contains antiseptic properties used to kill bacteria on the hands, consisting of alcohol and triclosan. Questionnaire-based research was conducted to focus on empowering millennial attitudes and knowledge about the use of hand sanitisers during the COVID-19 pandemic. A total of 250 participants participated in the discussion via the Whatsapp group. However, the respondents in this study were only 96 respondents for the pre-test and 32 respondents for the post-test. The results showed that there is still a need for education to the public about hand sanitisers.

Keywords: Infection, Pre-test, Post-test, Whatsapp

1 Introduction

Coronavirus is an RNA virus that has a particle size of 120-160 nm. This virus usually infects the animals; bats and camels are mainly infected [1]. In humans, the coronavirus can cause respiratory tract infections that are generally mild, such as cold symptoms. Ordinary people think it is only limited to ordinary influenza, but this virus is quite dangerous and deadly for health workers. In 2020, this virus transmission's growth was quite significant because it has spread worldwide, and many countries feel the impact, including Indonesia [2]. The covid-19 firstly reported in Indonesia on March 2, 2020, with 2 cases confirmed. On March 31, 2020, the data showed 1,528 people infected, and 136 died. The mortality rate for covid-19 in Indonesia is 8.9%. It is the highest rate in Southeast Asia [1].

The covid-19 that increase rapidly causes society to get panic. Because the government gives the preventive steps to stop the spreading the covid-19, that washes the hand [3]. Washing your hands using soap that is appropriately practised and correctly is the easiest and most efficient method to avoid contracting diseases such as diarrhoea, cholera, acute respiratory infection, worms, flu, hepatitis A, and even bird flu. Washing hands with soap and water can more efficiently remove dirt and dust from the skin’s surface and significantly reduce the number of disease-causing microorganisms such as viruses, germs, and other parasites on both hands [4]. The weakness is that not all places provide handwashing facilities, so the alternatives are
using hand sanitiser. This hand sanitiser product contains antiseptic properties used to kill bacteria on the hands, consisting of alcohol and triclosan. The types of hand sanitiser products are also increasingly diverse, both in terms of composition, substance, and new products widely used in the general public have been marketed [4]. Some people do not understand how to use the hand sanitiser, some of them use the hand sanitiser incorrectly or too much. So, because of the reasons, this research conducted through the Whatsapp group. The purpose of this research is to make people understand how to use the hand sanitiser correctly.

2 Method

The research design is a descriptive analysis to assess millennials’ attitudes and knowledge in Central Java about the use of hand sanitisers during the Covid-19 pandemic. A total of 250 participants took part in the discussion via the WhatsApp group. However, the respondents in this study were 96 respondents for the pre-test and 32 respondents for the post-test. The questionnaire was prepared to collect data consisting of six parts, demographic data, frequency of use of hand sanitisers, knowledge, attitudes, and respondents' opinions.

The discussion forum organisers make rules to run smoothly, such as disabling chat in the group when the speaker delivers the material. Questions raised by participants to presenters must be sent to the moderator. Group chat will be activated when the discussion session is held. The discussion was held on May 2, 2020, and participants know about this event discussion through pamphlets distributed by the committee a week before the event started from social media. The activity was carried out from May 1 to 3, 2020. On May 1, 2020, it was used to fill out the questionnaire one day before the discussion started (pre-test), and the 3rd was used to fill out the questionnaire one day after the discussion was finished (post-test).

3 Results and Discussion

3.1 Result

Our results in Figure 1 show that millennial attitudes and knowledge after discussion increased from a frequency of 86.50% to 90%. The majority of them (60%) agree that hand sanitiser is for cleaning their body parts. Even so, only half of them is committed to using hand sanitisers while travelling. This commitment was also confirmed by the readiness of 43% of them always to carry hand sanitiser when travelling. The majority do not set a standard for the maximum volume smeared on their hands regarding the volume of use.
After we invited millennials to discuss show in Figure 2, most of them (69%) realised that making hand sanitisers is not as simple as diluting some chemical compounds to a certain level. Even so, they (53%) understand that hand-sanitiser preparations can be produced independently. This understanding is also accompanied by awareness (81%) that independent production products that the food and drug regulatory agency do not register cannot be distributed and commercialised.

In our exploration of millennial perceptions, after they finished the discussion, most of them (72%) still believed that washing hands with soap is better than cleaning them with a hand sanitizer show in Figure 3. Although the number after post-test has decreased (13.5%). This perception may be related to most of them (72.5%) believe that handsanitisers do not irritate. Even so, only a minority of them believe that the handsanitizer can kill germs 100%. We are also proud to find that most of them (72%) believe that hand sanitisers do not cause resistance to the Covid-19.
3.2 Discussion

When the Covid19 pandemic hits. We realise that not everyone is ready with various actions to deal with it. The simple thing for self-protection is the awareness to apply the discipline of cleaning hands. One of the alternatives is to use a hand sanitiser. We feel the need to investigate and do a little bit to intervene in them so that their attitudes, understanding, and perceptions about hand sanitisers align with the correct directions. This effort is a form of our consistency in describing problems of attitude, knowledge and perceptions as we have done before [5], [6] also with the willingness of pharmacists to develop roles outside the dispensing area [7], [8].

Indeed, it a piece of good news that millennials have a cooperative attitude about hand sanitisers. As with other publications, they believe that these fluids are safe for body parts [9], [10]. More than that, they are also ready to use and carry it when traveling. This target should be what we all hope to break the chain of transmission of Covid19 [11].

We explained some facts about hand sanitisers during discussions with them. This explanation is vital so that their knowledge is not misleading. They need to understand that the hand sanitiser formula, as recommended by the World Health Organization, consists of three main ingredients; Ethanol (80%), glycerol (1.45%), and hydrogen peroxide (0.125%). Supporting media needed in the production process can use the following alternatives: distilled water (aqua dest), sterile water, or boiled water cooled [12]–[14]. With the regulation of the liquid distribution permit, we did not escape from explaining, so there would be no regulatory violations [15].

In perception, we try to correct them with a report that states that the frequency of handwashing can take place 20-30 times per shift [11]. It is also essential to believe that a hand-sanitiser can kill germs less than 30 seconds [3]. Regarding the regulation of health products, we emphasise that hand sanitiser is a Class II household health product. It means that these products can cause effects such as irritants, corrosives for those who use them, although they do not cause serious consequences such as carcinogenic [15]–[17]. Concerning the potential for resistance, they need to have a frame of mind that alcohol-based products work to kill viruses by damaging microorganisms' physiology. This mechanism differs from antibiotics which work enzymatically or involve bacterial receptors [18]. The use of hand sanitiser also does not potentially cause potential drug interactions like oral drugs [19].

Our research results are certainly not strong enough to describe all millennials with various types and characteristics. Even so, this is a portrait that is happening around us. An important point that we emphasize, although we discussed using the WhatsApp platform, improvements in attitudes, knowledge and perceptions can occur. We recommend the three components mentioned in the future related to problems of quality of life, and toughness in using the product in the long term, as part of the research we have applied before [5], [20], [21].

4 Conclusion

The use of hand sanitisers has become a necessity for millennials to face the pandemic. The discussion through Whatsapp can improve attitudes, knowledge and perceptions of hands-on agents. The method we have used can be applied for educational activities on the practical use of similar pharmaceutical products.
Acknowledgement

We would like to thank the millenial of who have been willing to fill out our research questionnaire

References


Financial Literacy and Its Impact on Financial Management of MSMEs in Rembang Regency

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Abstract. The goal of this study was to see how financial literacy affected financial management at a small business in Rembang Regency. The object of this study are MSMEs that scattered in Rembang Regency. The sampling technique used was purposive sampling. The sample that are using in this research are 101 MSMEs in Rembang Regency. The influence of each variable is determined using binary logistic regression analysis in this study. The findings of this study show that financial literacy has little impact on MSMEs' financial management in Rembang Regency.

Keywords: Financial literacy, financial management, MSMEs

1 Introduction

In recent years, industrialized and emerging economies have become more concerned about their citizens’ level of financial literacy [1]. Financial literacy is defined as the capacity and confidence of an individual to use his or her financial knowledge to make financial decisions [2]. It also involves the ability and confidence of an individual to understand and utilize personal finance related information. Financial literacy is a basic requirement for everyone who wants to avoid financial troubles and challenges. Financial literacy has an impact on the ability to make sound financial decisions, as well as household well-being and business sustainability, according to [3]. Financial literacy is seen as a critical tool for MSMEs’ success since it enables them to comprehend and evaluate data to make every day financial decisions in day-to-day operations [4]. Lusardi [5] defines financial literacy as a collection of desirable attitudes, behaviors, and external enabling factors that combine knowledge and cognitive skills with a set of ideal attitudes, behaviors, and external enabling factors. Budgeting, bill paying, debt accumulation and repayment, consumer problem management, and comparison shopping are examples of these skills [6].

Financial literacy has an influence on financial management behavior [7]. Financial management includes personal management, family management, and corporate financial management. Business financial management is very important for every business owner that can be applied in good business management as to facilitate the company’ activities [8]. According to [9] there is no conclusive evidence that financial literacy as to effect on changing financial management behavior.

MSME widely acknowledged that have an important role in economic development [10]. MSMEs are even considered to be more resilient to crisis than a large-scale company [11]. One of the factors that hinder the development of MSMEs in Indonesia is the lack of knowledge and ability to manage finance, in addition of that case the level of participation of MSMEs in
financial institutions is very low, within only 30% being able to access financing because of the lack of knowledge and understanding of MSMEs in the financial sector [12]. According to the research, the majority of MSMEs' owners in South Africa do not engage in formal financial planning, budgeting, or control, and only retain a few books of account. [3]. Based on [13] MSMEs in Depok have a low level of financial literacy so that it affects business owners in managing business finances with the limited ability that is only recording but has not done a good documentation for financial income and expenditure.

This study aims to investigate the impact of financial literacy on financial management of MSME in Rembang Regency with 5 indicators based on research [14]. The distinction between this study and other research is that this one seeks to determine the impact of financial literacy on financial management, despite the fact that many MSMEs have found that financial literacy has little impact on financial management. Several studies have discovered that financial literacy has an impact on financial management. Financial literacy has an impact on financial management, as evidenced by studies [3], [13], and [9].

2 Method

The population of this research is the MSMEs that scattered in Rembang Regency. Respondent that are used on this research are 101 MSMEs that are involved in the group of Forum UMKM Rembang. Method of collecting data by using online questioner. Sampling technique that are used in this research is purposive sampling, with criteria are as follows:

- Member of Forum UMKM Rembang;
- MSMEs must have been running for more than 1 year.
- Sales more than 5 million per month.
- Employees are more than 3 people.

The research variable is financial management as dependent variable and financial literacy as independent variable with 5 dimensions of financial literacy. The dimensions that are using in this research are based on previous research from [14], are as follows: 1) Basic financial knowledge are a basic knowledge about process that is intended to manage finance effectively and efficiently 2) Saving is a process that assists in placing a person’s surplus funds with the aim of easy access to liquidity, financial planning and security; 3) Loan/debt is knowledge and ability to make a simple decisions regarding debt contracts; 4) Insurance is the ability to measure risk and ways to deal with these risks; and 5) Investment is a process that assists in the formulation of policies and objectives as well as supervision in investment for profit.

The research data were analyzed with descriptive and quantitative analysis. Quantitative analysis is used to analyzed whether the understanding of basic financial knowledge, savings, loan, insurance and investment will affect the financial management of the respondent. The data analysis techniques using binary logistic regression test because this research is about perception. This research is measured using a nominal scale. Nominal scale distinguishes as YES and NO answer, the answer YES is given a value of 1. YES answer indicate that the financial literacy of the respondent is high. NO answer is given a value of 0 and indicate that the level of financial literacy of the respondent is low. For financial management variable has the same value as financial literacy. The answer of respondent is YES or NO. YES answer means that financial management of respondent is high and NO answer means that financial management of respondent is low.
Binary logistic regression is used to test the hypothesis in this study because the dependent variable is categorical variable with has two categories (dummy variable) so that it cannot be solved using multiple regression [15]. States that logistic regression ignores heteroscedastic, meaning that the dependent variable does not require homoscedastic for each of the independent variables. Logistic regression in this study is used to test the understanding of finance, loans, savings, insurance, investment that will affect financial management among MSMEs in Rembang Regency. The test was carried out at a significant level ($\alpha$) 5% (0.05).

3 Results and Discussions

3.1 Results

3.1.1 Instrument testing

The purpose of the instrument testing in this study was to assess the statement items' reliability and validity. Instrumental exam of 30 respondents utilizing 21 statements linked to financial literacy and financial management. The following are the test results:

3.1.1.1 Reliability test

The purpose of this reliability test was to determine the research instruments' reliability so that each item of the questionnaire could be trusted. The Cronbach Alpha of 0.702 indicates that the variables in this study are moderately reliable, according to the reliability test results.

3.1.1.2 Validity test

The statement item is valid with a significant level of 0.05 percent in the validity test [16], where an instrument is said to be valid if it is computed with the formula degree of freedom (df) = $n - 2$, where $n$ is the number of samples, and the value is positive. Based on the findings of the validity test, which included 30 samples, all of the forming items have a correlation of 0.25. As a result, it can be determined that all of the items are correct.

3.1.1.3 Data analysis

The respondent's degree of financial literacy may be described using the findings of the analysis produced for each of the variables employed, starting with fundamental financial knowledge, saving, loan, insurance, and investment, as shown in Table 1.

<table>
<thead>
<tr>
<th>Financial Literacy Indicators</th>
<th>Financial Literacy Presentation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Basic financial knowledge</td>
<td>6</td>
</tr>
<tr>
<td>Saving</td>
<td>1</td>
</tr>
<tr>
<td>Loan</td>
<td>4</td>
</tr>
<tr>
<td>Insurance</td>
<td>26</td>
</tr>
<tr>
<td>Investment</td>
<td>6</td>
</tr>
</tbody>
</table>
From the Table 1 above, it can be seen that the respondents have a higher understanding of basic financial knowledge by 94%, saving 99%, loan 96%, insurance 75% and investment 94%. The survey also shows that respondents have a high understanding of savings at 99% it means that the owner of MSMEs in Rembang Regency knows very well about saving in financial aspect. The lowest understanding at insurance by 75% it means that the owner of MSMEs in Rembang Regency have less understanding about insurance, the meaning of insurance, insurance product and the benefit of insurance. Table 1 also shows that understanding of loan, insurance and investment is also high because is more than 60%. This means that in general the understanding of financial literacy at MSMEs in Rembang is high.

The effect of independent factors on dependent variables will be tested in this Fit Model test show in Table 2, where the independent variable is financial literacy (x) and the dependent variable is financial management (y). The initial step in the process is to test the complete model (overall model fit). This test compares the initial (intercept alone) value of -2 log likelihood (-2LL) with the final model's value of -2 log likelihood (-2LL). The decrease in the value between the initial -2LL (intercept only) and the final -2 log likelihood (-2LL) suggests that the model fits the data.

<table>
<thead>
<tr>
<th>Iteration</th>
<th>-2 Log likelihood</th>
<th>Coefficients</th>
<th>Kat A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td>134.640</td>
<td>-1.429</td>
<td>1.173</td>
</tr>
<tr>
<td></td>
<td>134.519</td>
<td>-1.752</td>
<td>1.495</td>
</tr>
<tr>
<td></td>
<td>134.517</td>
<td>-1.791</td>
<td>1.534</td>
</tr>
<tr>
<td></td>
<td>134.517</td>
<td>-1.792</td>
<td>1.535</td>
</tr>
</tbody>
</table>

Based on Table 2 shows the comparison between the values of -2LL in the intercept only model and -2LL in the final model. From the table it is known that the initial -2LL number (intercept only) which only includes constants is 134.640 and at the final -2LL, the -2LL number has decreased to 134.517. This shows that the hypothesized model is fit with the data.

3.2 Ordinal logistic regression testing results

Ordinal logistic regression testing was carried out to see the variables that affect financial management. Following are the results of the ordinal logistic regression on Table 3.

<table>
<thead>
<tr>
<th>Variables in the Equation</th>
<th>B</th>
<th>S.E.</th>
<th>Wald</th>
<th>df</th>
<th>Sig.</th>
<th>Exp(B)</th>
<th>95% C.I.for EXP(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower</td>
</tr>
<tr>
<td>Step</td>
<td>Kat_A</td>
<td>1.535</td>
<td>1.100</td>
<td>1.948</td>
<td>1</td>
<td>.163</td>
<td>4.642</td>
</tr>
<tr>
<td></td>
<td>Constant</td>
<td>-1.792</td>
<td>1.080</td>
<td>2.752</td>
<td>1</td>
<td>.097</td>
<td>.167</td>
</tr>
</tbody>
</table>

Based on the results of the ordinal logistic regression test, it is known that the independent variable has no effect on the financial management of MSMEs. The significance threshold for this test is 0.163, according to the results. Financial literacy has little effect on financial management, it can be concluded. Based on table 3, the following equation is obtained:
\[
\log \left[ \frac{P}{1-P} \right] = -1.792 + 1.535 + 1.110
\] (1)

### 3.3 Discussion

This research is a study on the level of financial literacy among MSMEs in Rembang Regency. Literacy level measurement activities contain information about the understanding of financial literacy that will affect financial management. The components contained in financial literacy are general knowledge of finance, banking, insurance, and investment. Through these components, an indicator that shows the position, the condition of actual financial knowledge of MSME owners in Rembang Regency can be obtained. The results of the tests that have been carried out show that the financial literacy variable has a regression coefficient of 1.535 with a significance value of 0.163 which means it has no influence on financial management. The results of this study are different from [13] study which states that the level of financial literacy affects the financial management of MSMEs.

In the meantime, [8] state that financial literacy has an influence on MSMEs when doing a financial management, besides that [8] also stated that MSMEs needs to understand and apply financial literacy to do a financial management for their business.

The findings of this study show that having a high level of financial literacy has little bearing on financial management. This is also supported by the findings of a study by [17], which found that financial literacy has no effect on financial management because financial attitude has a greater impact on financial management. As a result, financial literacy becomes a supporting part of financial attitude, and financial attitudes become the main controller or the last gate of decision, even if a person truly understands all aspects of finance.

### 4 Conclusion

Based on the results of the study, it was found that financial literacy had no influence on financial management at MSMEs in Rembang Regency. Although it was found that the level of financial literacy at MSMEs in Rembang Regency was high, it did not affect financial management. This can happen because financial management is not only influenced by financial literacy. Based on the results found by [17] it is stated that there are other factors that affect financial management such as financial attitude. Basically, financial attitude is the main control in making decisions related to finance. So even though financial literacy is high and knows many things related to finance, that knowledge is not carried out so that it will not have an impact on financial management.

This study also has many limitations. The limitation of this research is that the research sample is limited only to MSMEs which are members of the Rembang UMKM Forum group. So for further research, it can increase the number of research samples. In addition, the only variable used in this study is financial literacy, for further research it may be possible to add other variables such as financial attitudes, financial inclusion and financial behavior as variables because financial management has many influencing factors besides financial literacy.
Acknowledgement

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References

Mental Health Recovery in SDGs Through the Empowering Family Communication in Palmerah Community Jakarta

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Abstract. This study analyzes the mental health recoveries among adolescents, such as addiction to internet consumption through social media, websites, games, YouTube, Netflix, and live streaming. Action research was carried out on communities in two villages involving 22 families as participants, and each family has one to four children. Ethnography was also used to collect data from observations, interviews, and researchers who are active in the community for three months. The first step is to identify the problem and then carry out an extension and mentoring program. Researchers applied a program to improve interaction and communication patterns in families, both dyadic and group. The empowering families and community are conducted through day-to-day coaching to the adolescents to improve communication patterns and relationships between family members, increasing knowledge about communication technology's function, and strengthening cultural ties face-to-face and online. The results showed that mental health recovery loosened dependence on online games and the duration of social media chats. The community shows the improvement of interaction and relationship patterns in family communication. Meanwhile, dimensions such as knowledge about the role of communication technology and cultural ties in the community are considered necessary by the community to improve adolescents' mental health.

Keywords: Adolescence, Internet addiction, Family communication, Mental health, Hyperactivity online

1 Introduction

Sustainable development goals (SDGs) are becoming increasingly important to the attention of all stakeholders. The government, society, universities, and non-government organizations (NGOs) are responsible for preserving nature. Because economic development with the exploitation of nature must pay attention to balance and avoid damage to ecosystems, on a macro scale, attention to the ecosystem's balance will result in the harmony of life between
humans and their environment. Human welfare can be seen from its ability to develop health, education, poverty reduction, natural resource utilization, and eco-friendly behavior.

On a micro level, every family faces a mental health issue, even though its role is essential to building family welfare and happiness. Each family’s welfare reflects the success of the SDGs on a micro-scale by paying attention to individuals’ daily lives, such as both parents and children in a nuclear family. Attention to the micro-level is significant because it can show considerable success for the SDGs, which was then seen at the community level in an area.

Initial observations were made to collect data in identifying problems faced by families and communities in Palmerah County, West Jakarta. This area has demographic characteristics that are relatively the same as other areas in Metropolitan Jakarta. However, its peculiarity is that it is a community close to universities, traditional markets, modern markets, and close to offices centers. Researchers chose these characteristics to understand the problems at hand, from the perspective of SDGs and at the same time providing a capacity-building program as a series of action research.

The topic of mental health in family and community came into sight at the initial review on the field, from the perspective of Sustainable Development Goals (SDGs) as a United Nations Agreement through planning, implementation, control, evaluation, and improvement in all countries. With this viewpoint, attention was paid to preserving the blue planet, where humans benefit but must balance environmental preservation. SDGs, as we know, on the macro-side efforts, are made to improve with poverty reduction, good marine resource management, the government pro-poor strategies and policies, food security, and nutrition. Moreover, on the micro-side, we understand that every family has an essential role in achieving welfare and happiness, which is in line with mental health.

Regarding mental health, we discuss this issue from the study of communication disciplines, namely media consumption by adolescents in the family. The age of children, teenagers, and young adults were critical for forming a human character, so this study is essential to discuss mental health. The internet's use is massive and of long duration in everyday life, including online games, YouTube, Instagram, Line, WA, Twitter, etc. This research article focuses on an action research approach through a capacity building program.

From the perspective of the communication discipline, mental health views a lack of theory and people habits related to online media such as being addicted to online games, enduring long hours of social media chatting, live streaming on YouTube, and other applications. All these online activities dominate family members, both father, mother, and children, including adolescents who have to divide their time to learn and play offline for their mental health.

Various previous studies have discussed mental health from a health and medical perspective without analyzing media use by adolescents in their families. Simultaneously, physical and mental health factors are related to family members’ discipline in daily life. The communication science perspective highlights the impact of online media’s excessive use on making children and adolescents undisciplined. There was a lack of communication interactions with their parents as a contributing factor to mental unhealthiness.

The previous research on depression by Dong-Woo et al. does not prioritize the importance of family communication and several other studies. By directing children and guiding them to get used to a balanced communication interaction with parents and peer groups, mental health recovery can be achieved without neglecting media technology’s role in the learning process and community development. The still rare attention to the importance of improving family communication that balances online and offline life is discussed in this research article making this topic have novelty and distinctiveness.
This research article thoroughly highlights the question: How is the role of empowering family communication for mental health recovery as the result of excessive use of online media and communication interactions that do not consider the role of parental assistance? Therefore, this research article aims to analyze the mental health recovery among adolescents with capacity building treatment and sharing knowledge about the dangers of mental health problems such as depression when consuming the internet without a break. Addiction to online media in the family includes internet consumption through social media, websites, games, YouTube, Netflix, and live streaming.

2 Literature review

2.1 Computer-mediated communication and internet addiction

Sheizaf Rafaeli, in Holmes [12], was referred to as the prominent theorist who explains computer-mediated communication (CMC) since 1988, which distinguishes between connectivity, reactivity, and interactivity. In his opinion, the network must have a human interface, but it must also have an architecture that allows interactivity. Interactive networks form a relationship that is strengthened by interactive two-way communication. However, two-way communication does not in itself guarantee interactivity. Instead, exchange or action reaction should develop into a relationship where one speech becomes the context for another. Without this form of connectivity, relationships are circular or solipsistic.

Furthermore, Holmes [12] explains that online interactivity is distributed across the network and cannot be reduced to the number of point-to-point exchanges. Each message takes into account the previous message and the way the previous messages react to one another. This research article adopts online communication or CMC in addition to new media theory as a basis for discussing interactivity, expression, synchronicity, realtime, and so on. Gen Z understood the expression and interactivity of social learning and its effect on the environment's advocacy movement in terms of CMC and the new media theories.

The concept of "internet addiction" is still an exciting discussion and continues to be questioned. However, depressed or isolated individuals may be more likely to focus on specific activities excessively. Bell [2], for example, revealed that there are extreme communities that use online media, so that internet therapy is needed to maintain mental health. Several "extreme communities" have also formed online, such as pro-anorexia, pro-suicide, proamputation, and possibility-psychotic groups. Previous research findings like these serve to provide support beyond the medical and social mainstream who find their beliefs and behaviors unacceptable.

The risks faced by children and adolescents can be said to be balanced with the benefits obtained from the internet, especially if school or campus policies move physical classrooms to virtual classrooms in the teaching and learning process. This research article puts forward mental health problems due to internet addiction (IA) or specifically online games addiction, YouTube, chatting, and so on, creates the behavioral problem, particularly among adolescents. Meanwhile, the word "addiction" carries a negative stigma as a compulsive behavior towards a family's life.

While the use of technology as a learning tool holds great promise for children, misuse of technology can have the opposite effect. Young and De Abreu [38] show that too much children's time was spent in front of gadget screens, which results in a lack of school performance such as poor grades, low reading scores, inattention, blunt thinking, and social
problems. Online gadget exposure is also added to watching television and other offline video games that interfere with healthy eating and sleeping habits for children and adolescents to complete their homework. Several previous studies have also concluded that time spent staring at gadget screens can rob children and teens of opportunities to develop essential learning skills. The assumption is that excessive media use impacts decreasing physical and mental health and that indiscipline also affects communication patterns and relationships in the family.

2.2 Mental health

Mental health is a state of well-being in which individuals are aware of their own abilities, can cope with the pressures of normal life, can work productively and be fruitful, and are able to contribute to their communities [34]. Mental health concept is officially used because according to WHO, there is no opposite concept such as "mental illness" in the medical world. However, the definition of this concept is feared to cause misunderstanding so that two aspects of the coverage referred to by WHO are emphasized, namely positive emotions and complementary functions. Three components of mental health [11], [15], [16] are emotional well-being, psychological well-being, and social welfare. Emotional wellbeing includes happiness, interest in life, and satisfaction, while psychological well-being, such as liking a large part of a person's personality, being good at managing daily life responsibilities, having good relationships with others, and feeling satisfied with one's own life. Lastly, well-being social sense refers to positive functions which include having something to contribute to society (social contribution), feeling part of the community (social integration), believing that society is a better place for everyone (social actualization), and that society works, and makes sense to them (social coherence). This article discusses micro mental health within the family in a community associated with excessive media use with a negative impact.

While representing substantial progress concerning moving away from mental health's conceptualization as a state of absence of mental illness, this mental health concept raises several concerns. It lends itself to potential misunderstandings when it identifies positive feelings and positive functioning as critical factors for mental health. Understanding mental health associated with internet addiction reflects the causality that IA affects young people's physical, mental, and social conditions. Online and digital life has grown as the internet culture, so that researchers like Kirmayer [17] highlight the sides of identity and community to discuss mental health.

2.3 Community

Tracy [33] describes several definitions of community: 1) A community is a collection of people who inhabit a particular geographic place as a geographical unit larger than family and neighborhood but smaller than the state in local units such as cities, towns, and school districts. 2) As a frame of reference for a group of people who have different cultural identities. 3) As a group of people who share the same interests or activities (for example, the snowboarding community, the Facebook community, the vegan community). 4) As a positive sentiment that can be applied, achieved, pursued, or threatened with extinction. 5) As a pillar in two pairs of interdependent and controversial political values to realize a commitment to a group's welfare (community), it was contrasted with assessing individual rights. The definition of the community, thus for Gen Z, is more as a group of people with the same relative age with interest in paying attention to environmental issues or an eco-friendly lifestyle. It means that the third definition is closer to the discussion of this article.
2.4 Capacity building

The capacity building definition refers to efforts to strengthen community capacity by determining their values and priorities. Capacity building-based development is carried out with separate interventions — such as those developed by Oxfam, an NGO — characterized by its own fundamental beliefs. Capacity building believes that all people have the right to a fair share of the world's resources. People will become writers of development about their story themselves, and that denial of rights is at the heart of poverty and suffering. Even though specific essential capacities (social, economic, political, and practical) upon which development relies, Oxfam strives to support organizations working for sustainable social justice [6].

The SDGs implementation is seen as more appropriate to be approached with the concept of 'capabilities approach' as put forward by Amartya Sen — a philosopher and economist who won the Nobel Prize. His work on 'rights' has been instrumental in analyzing economic inequalities such as hunger and its prevention solutions. According to Sen, the goal of development is to improve the community's quality of life, which was best achieved by providing vulnerable communities access to a broader spectrum of capabilities. Furthermore, the 'capabilities approach' is related to (i) expanding goods and services, (ii) increasing utility, or (iii) meeting basic needs [6]. In community capacity building consisting of families facing mental health, this research article considers recovery and balancing necessary to achieve excellent mental health for adolescents by improving family communication patterns online and offline.

2.5 Family communication

From the point of view of communication studies, this research article needs to put forward Family Communication Theory as a process and family relationships that explain phenomena of interests, which frequently are the relationships or communication behaviors themselves or their outcomes for family members. Family communication theory is a communication process within the family and family relationships that explains the phenomenon of interest among family members. Furthermore, family communication is also the relationship or communication behavior itself or the result for family members. Thus, Family Communication Theory is critical in understanding the process of interaction in the family, its results, and benefits that are influenced and generated [18].

The qualitative approach to understanding family communication focuses on human behavior expressed in interactions and ultimately relies on the specific processes of participant interaction in the family's structural control. According to Koerner [18], family communication patterns are associated with several processes for forming the family as a community institution. The process that takes up several challenges such as conflict, affirmation, and strengthening and maintenance of affection was continued with family rituals and understanding. Communication is also associated with relationship outcomes, such as the presence of children. There can also be communication fears, conflicts, romantic partner interactions, resilience, and children's mental and physical health. So, the family communication theory also pays attention to the mental and physical health of family members. In this article, the analysis was deepened by using excessive digital technology in the family.

The family communication pattern is associated with the frequency of adolescent-parent communication directly, through telephone, text message, and email. Rudi et al. [28] analyzed adolescent–parent communication in a digital world by linking family communication patterns. Within the family, teenagers communicate more with family members through social media
than directly interacting. Meanwhile, Barbato et al. [1] tested the relationship between family communication climate and interpersonal communication motives. Conversation Oriented families communicate with their children for relationship-oriented motives (affection, fun, relaxation), and conformity-oriented families communicate with their children for personal influence (control and escape) motives and for showing affection.

Children's personalities and adolescents are significant to be built through family communication patterns because family habits and informal education were very influential, especially for children and adolescents' personalities. Individuals from conversation-oriented families were more likely to monitor themselves and were shy and restrained [13]. Model of implementation of evidence-based treatment in capacity building show in Figure 1.

![Fig. 1. Model of implementation of evidence-based treatment in capacity building](image)

This research model discusses technology and society in a smaller scope on adolescents, families, and communities. We see the importance of a capacity building program, so that action research is an option besides ethnography with three months of observation, interviews, coaching, and accompanying.

This research article identifies current mental health in adolescents to carry out coaching, knowledge sharing, and mentoring to adolescent children. We also observed physical activity, health, and interviews to understand mental health. After the recovery program, we conducted observations and interviews again by observing the communication patterns of families and their relationships, whether there was a change for improvement or not.

3 Methods

Ethnography strengthened the method with three months long observation at the site (from January to March 2020). Researchers interact with adolescents, families, and the community.
while observing and interviewing. Ethnographic research such as O'Brien [24] on factors shaping indigenous mental health provides deeper insights into the notion of mental health. Capacity building with coaching and mentoring to every family in the community is the right way to improve adolescents' mental health. Action research and ethnography are the methods we choose. However, the criteria for families selected through the community of housewives called the Palmerah District PKK is the right sampling technique with 22 family groups. On average, each family has two children, so that the total sample is 88 people. Twenty-eight of them were interviewed with details of 14 children and 14 parents.

Regarding the researcher's intervention in the capacity-building program, this study's results are in line with Read et al. [27], who also intervened in rural Ghana's local communities. Communities living with mental illness, family members, and healers have a more significant potential to influence changes in the care of mental illness. Read also conducted research using ethnographic methodology as well as intervening.

Action research was carried out on communities in two villages involving 22 families as participants, and each family has one to four children. Ethnography was also used to collect data from observations, interviews, and researchers who are active in the community for three months. The first step is to identify the problem and then carry out an extension and mentoring program. Researchers applied a program to improve interaction and communication patterns in families, both dyadic and group. The empowering families and community are conducted through day-to-day coaching to the adolescents to improve communication patterns and relationships between family members, increasing knowledge about communication technology's function, and strengthening cultural ties face-to-face and online.

Ethnography focuses on accounting for the studied social agents' actions and intentions and outlining how such behavior is rationalized and understood by the wider group [21]. According to Lofland [22], the critical aspect of performing an ethnographic analysis is to balance the role of being an active part of the selected community while intermittently assessing emergent findings against the existing and developing theory. In effect, ethnography reveals the relationship between behavioral intent, attitudes, and beliefs against actual behavioral patterns [7].

Brenman et al. [3] also view the importance of intersecting cultures and mental health in the family, especially for children with disabilities. Therefore, his approach to ethnographic studies in children and adolescents' mental health services, the National Health Service in the United Kingdom, is based on transcultural psychiatry’s theoretical perspective. Meanwhile, Snodgrass et al. [32] use a cognitive anthropological theory of "culture as socially transmitted knowledge." The ethnographic research approach was used to explain the socially learned game patterns in understanding online gaming experiences. Palinkas et al. [25] also conducted an ethnographic study of implementing evidence-based treatments in child mental health. Previously, Lee et al. [20] also used an ethnographic study of the experiences of depression among patients, as did Ware et al. [36], who used ethnographic methods with field observation, open-ended interviewing to investigate the meaning of mental health services. Thus, ethnography and capacity-building programs are the right methods to build families and communities in Palmerah County, West Jakarta.

Interactions and interviews were conducted with a set of semi-structured open questions related to online media use dimensions, including types and duration. The open-ended questions include mental health concepts, depression, physical health, dependence on online games, chatting, interaction with parents, and verbal and nonverbal communication with parents. The interview also focuses on the knowledge of children and adolescents about mental health and
4 Results and Discussion

4.1 The lag time between capacity building and media technology use

Technology and society are two inseparable sides, but technology adoption always takes time for acceptance. Rapid change causes some communities or families to have no opportunity to adjust because technology suddenly must be faced and implemented. Experience and knowledge are still limited, causing some people not to place their role in media technology consumption. Children and adolescents accept the fact at their age that apart from having formal interactions at school, they are free to use various gadgets to interact online. Meanwhile, the average parent and school are inadequate in advocating their knowledge in online media consumption. No guidelines and signs support each family member in the social system as consumers and direct them to balance offline and online life. Some of the family, community, and social values built suddenly were dissolved by the revolution in communication technology. Children and adolescents who grew up with online digital products seemed to be separated from the older generation or their parents because they had no comparative practice before the advent of smartphones, tablets, social media, and online videogames. A housewife as participant-1 (48 years old) in the interview said:

In the early days of my Android smartphone’s emergence, it was difficult to talk or invite children to gather in the family room because they were busy individually. They liked to get angry if I disturbed them because they did not respond when I called. Not only my children but also my husband, he was even more comfortable with his smartphone alone. This condition caused me to feel alone, and I became stressed until finally, I asked to buy a smartphone and stop subscribing to the landline. Yet, as a family, each of us had a smartphone and had new activities besides running the household. But we do not do many things like we used to. Never again gather in the family room, watch together, or go out to neighbors' houses. We have more time to interact on social media with our own family and neighbors. Life feels completely different than before.

Parents in many families in the community do not understand what is going on with a sudden significant change. Even though they can finally adjust, but with limited knowledge, they cannot provide experience and guidelines on how their children should use gadgets. The parents cannot coach their children in balancing the online and offline life so that they are not addicted to the internet, in which they spend all day except when sleeping. Thus, it will take time to increase the family's capacity to adopt reasonable media technology to avoid extreme dependence.

4.2 Coaching and advocating in using new media

4.2.1 Motivation

Researchers' involvement in families in the Palmerah County PKK (housewives) community aims to understand that teenagers and parents are accustomed to maintaining family communication patterns that balance online communication and direct interaction within the
family and their peer groups. Researchers conducted coaching with the approach as a teacher who was actively involved daily for three months of ethnography. Coaching and advocacy in using new media are the researcher's activities in capacity-building programs. Researchers motivate children and adolescents to be enthusiastic about using the internet as a learning tool such as completing homework, question-and-answer and discussion with friends, and parental guidance channels. One teenager (15 years old) from participant-2's family said:

I do not want to be disturbed by my pleasure in playing with gadgets. But I also often feel sleepy in class. I feel sluggish and not enthusiastic about studying. Well, I will follow the advice to limit playing online games. I need help learning to do homework. I want my grades in school to be better than now.

4.2.2 Enthusiasm

Some parents pay attention to the decline in their children's school achievement, while others do not think about the decrease in their children's school achievement. Some families do not know if their children are experiencing stress due to school pressure and online game addiction. Some parents who have tertiary education feel concerned about the dependence of online games on their children. Parents like that have enthusiasm when researchers provide solutions for coaching and mentoring to their children. Although it may be that their appreciation for the lecturer or researcher has influenced community acceptance, the researchers' intervention was carried out professionally to act as a capacity-builder. Participant-16, a mother (42 years old), said:

We hope for help to understand my teenagers so that their high school scores will be good, and they can enter college. At first, I wanted to hire an informal tutor to make the exam work, but I am very grateful for the mentors' assistance from the advocacy team. We are very hopeful and very enthusiastic.

4.2.3 Commitment

The research team wants each family to commit to change the wrong or unbalanced communication pattern between direct interactions that reflect the care and cohesiveness of family members and online media use. However, for three months, the capacity-building program remembered that the PKK community had a dependency on the program's sustainability. A mother, participant-9 (37 years old), said that due to her busy schedule taking care of her business at Palmerah Market, she did not have time to supervise her children's activities when she came home from school and only met her child in her room before her child fell asleep. But even at night, her children often still play online games. She said, "I haven't been able to commit to change my son's habit of playing online games because he is with his friends, while his father and I are busy in the market".

4.3 Capacity-building treatments appropriateness

The housewife community or PKK community in Palmerah County, West Jakarta, is a capacity-building activity that involves a research team and family members in the city. The relationship between the research team and the community is very close, with researchers as coaches and mentors for children and parent groups. Capacity building treatments include experience, theoretical orientation, and structure versus treatment flexibility.
Previous experiences for some families were very worrying because their children were addicted to online games and chatting or watching YouTube for excessive time. Although parents limit the amount of spending for online connections, their children in the area quickly get free wi-fi from many of their neighbors, such as apartments, inns, and residences that have open connections. Parents who are aware of the psychological and physical effects of excessive online media use on adolescent children experience worries.

The researchers involved in the community as educators have concerns for theoretical orientation. This role means the researcher pays attention to concepts, theoretical perspectives to be applied to the family regarding family communication, mental health endeavors, and efforts to balance online gadget usage with direct communication interactions with other family members and peer groups in the community. Researchers’ roles as coaches and mentors for children are improving their study performance and having a healthier family relationship. Researchers also pay attention to the structures in the nuclear family, extended family, peer groups, communities, and the wider community influenced by conventional media coverage and various viral social media issues. Therefore, as coaches and mentors, researchers are flexible in their roles.

4.4 Advocacy first impressions

Many families do not think that researchers’ role is to continue to pay attention to and assist their teenagers daily. The duration of mentoring in a day is around 2 to 3 hours in some families, taking turns for three months. The first impressions of the parents are reflected in the statement of participant-10 (a mother, 39 years old):

I am happy to be accompanied so that my child is not too addicted to online games. I thought the teacher who attended them only came once and just chili ago but was continually directing them to be better and pay more attention to their homework. I was surprised by the coaching of the researchers.

Some other parents were less appreciative of researchers who wanted to help their children reduce stress and mental health problems. Still, researchers tried to convince parents, mostly because the community understood the higher education institution’s seriousness as coaches’ affiliation.

4.5 Coaching and participatory researcher adaptability

Coaches with permission and parents provide direction and guidance to children and adolescents about accessing educational internet content. Researchers also provide knowledge and insight into the appropriate duration of internet access for mental and physical health. Parents provide support and direction to their children, and the researcher begins to provide psychological treatment and physical exercises (healing) to restore children's fitness. Creativity in physical play is needed to get children to do it independently when left by coaches. Some of the neighboring children were gathered to allow them to play in a peer group—however, there were still teenagers’ refusal to be guided by coaches and mentors. When they were accessing the internet, for example, they tried to hide. Coaches always were friendly to approach them to reduce the duration of playing online games. However, in the end, the coaches succeeded in building relationships with children and adolescents.
4.6 Family communication coaching

Family communication is a solution that is practiced in capacity building to heal children and adolescents who experience severe internet addiction. Researchers carry out the identification and assessment of children in each family and provide treatment such as healing and discuss solutions with parents. At first, many parents do not realize that their children were stressed and mentally unhealthy. Likewise, unhealthy physical conditions are due to lack of rest and high dependence, especially on online games. One mother, as participant-8 (35 years old), said:

I came to understand that mental health is related to excessive use of online gadgets. Indeed, if I pay attention, my child looks tired because he plays too many online games. I am grateful to be given explanations and insights from a team of lecturers from the university.

The sharing of knowledge between the researchers and parents in several families allowed them to carry out self-assessments. Most families could carry out self-assessments after being given insight into the importance of mental health and children's physical health related to internet media consumption. For researchers, this family care is a form of professional service for client assessments to obtain positive results and good progress for the community's mental health by empowering the Palmerah District PKK community.

4.7 Capacity-building interactions

In the interaction, the research team, as a capacity builder, tries to motivate each family in the community. However, because most of the community's children suffer from internet addiction, researchers must involve parents to build a new spirit in their families to interact with love and concern for one another.

Observation and interview data show that adolescents spend much time using gadgets, less direct interaction with their parents and families. Adolescents show that their attention is focused on the gadget screens, such as online games, YouTube, chatting, and children having difficulty interacting with their parents. Parents who are aware of this state complain, as participant-3 (a 37 years-old mother), puts it:

I often scold my teenager who spend all her time playing online games, day, and night, lacking sleep, and her eyes are always tired. My child is sick, and her learning achievement has declined.

The parents' confession occurred after they were given insight and awareness in the capacity building program process. During the three ethnographic months, the researcher recorded the findings and testimonies of the parents. Observations and interviews also found that adolescents experienced physical health problems. A mother as participant-7 (44 years old) said:

I saw the wrinkled face of my teenager. His eyes always looked sleepy and not cheerful, and he often had headaches. I sometimes massage his hands and fingers because he feels sore. I know that he takes too long-playing online games and chatting or watching YouTube.

Thus, adolescent respondents whose online activity duration was extended face unhealthy physical and mental health problems.

4.8 Intentions

The intention dimension is essential to be analyzed from the results of observations and interviews during ethnographic mentoring. Every family was expected to do a precise or faithful application or partial application to share knowledge and experiences. After the condition got
better, the companion team left the community with a note that the organization still hopes for the capacity-building program's sustainability. On the other hand, there is no community abandonment on the capacity-building program during the mentoring process.

The results showed that loosened dependence on online games and the social media chats' duration caused mental health recovery. The community shows the improvement of interaction and relationship patterns in family communication. Meanwhile, dimensions such as knowledge about the role of communication technology and cultural ties in the community are considered necessary by the community to improve adolescents' mental health. Researchers do capacity building by empowering family communication, sharing knowledge with adolescents, and creating time limits for online and offline activities that involve families.

Mental health recovery is the primary goal of action research, where researchers are directly involved in advocacy, coaching, and mentoring adolescents in 22 family groups in the Palmerah County PKK community. At the end of the program, almost all family groups saw the benefits of this capacity building program and wanted continuous monitoring. A mother (45 years old) with two kids and a teenager as participant-15 says:

I am happy that my teenager is now healthier physically and mentally after the lecturers coached and mentored our family. We are aware of the importance of a healthy way of life. It turns out that the gadget must be used wisely. Thank you.

Mental health and physical health were recovered, and a balanced communication pattern between online and offline occurred after the researchers had provided advocacy for three months. During the capacity-building program, a friendly relationship occurs between the research team and families participating in the community. Changes for the better in family communication allow parents to be more concerned with their children's mental health and physical health.

4.9 Discussion

Results of this research confirmed some previous research, such as Lam's about the relationship between parental mental health, particularly depression, and their children's internet addiction status. Depression is a symptom of mental unhealthiness in children and adolescents. At that young age, children and adolescents cannot manage themselves unless their parents intervene in good family management.

Online communication is essential for children and adolescents' educational period, but it must be balanced with offline family communication patterns. Direct interaction, both dyadic and group communication when eating together or doing joint activities inside and outside the home, is essential. Verbal and nonverbal communication are needed, such as physical touch and parents' advice for children before adulthood. Verbal and nonverbal communication in the family occurs in interactions and conversations at the dining table, in the family room, in the bedroom, lawn, or when gardening. According to Koerner et al. [19], this conversation fosters understanding of family communication in maintaining family functioning.

Improving the family communication pattern in this research is a practical solution based on identifying problems in the field and healing treatment as the initial treatment for depressed and mentally unhealthy children, making this article distinctive. In the context of family communication, this study's results are in line with the findings of Schrod et al. [30], who analyzed family communication patterns and their associations with information processing, behavioral, and psychosocial outcomes. They show that family communication patterns have a meaningful relationship with various cognitive activities, relational behaviors, and individual well-being.
The capacity-building carried out in this research reflects the spirit of building a future for young people with more severe challenges. Now and the future challenges become complicated, especially those related to the development of the technological environment in business, organizations, society, and all aspects of life, as Santo et al. [29] mention, engaging urban youth through technology. This research article's findings are also in line with the findings of Varjas et al. [34] regarding four culturally specific themes identified, such as adult behavior and practices, youth perspectives on the present and aspirations for the future, and social factors. The code categories for developing culture-specific interventions are attitudes, beliefs, customs, expectations, norms, and cultural values; and reflect the ecological framework that guides research.

Furthermore, Schrodt et al. [31] highlighted the role of parental confirmation and affection as mediators of family communication patterns and children's mental well-being. It was revealed that confirmation and parental affection partly mediated the effects of conversational orientation and fully mediated the effects of conformity orientation on young adults and children's self-esteem and perceived stress. In more detail, for example, as a comparison, Garcia and Saewyc [8] found three thematic patterns identified as "mentally healthy," "mentally unhealthy," and "health promotion." Piotrowska et al. [26] also suggest things that are in line with this research's results that there is a need for father-inclusive and universal parenting intervention to reduce child conduct problems. Therefore, it is necessary to raise awareness of culture and immigration on adolescent mental health.

However, this study differs from Daley et al., who found that adolescents have a more holistic view of their health care. This research found that adolescents did not care about their health except after participating in a family capacity-building program to strengthen family understanding and discipline. However, the research of Yap et al. [37] and Cardamone-Breen et al. [4] recommend using online parenting guidelines to prevent adolescent depression and anxiety. Meanwhile, this research article's results put forward the balance between online and offline parental guidelines and even improve the overall family communication pattern.

The new finding as the novelty of this study's results is that action research positively impacts mental health recovery for a community. The capacity-building program is a direct practice solution as an intervention carried out by researchers to obtain results on proving previous assumptions. Identifying problems found in mental unhealthiness and depression among children and adolescents was derived from internet consumption and excessive duration. More than that, it turns out that parents pay less attention to the importance of good family communication to strengthen their affection. However, continuous assistance is needed to ensure that a family communication pattern supporting health, both physically and mentally, is maintained.

4 Conclusion

The capacity building program in Palmerah Country shows mental health recovery in SDGs by empowering family communication. Children and adolescents in most families in the community experience depression, decreased learning spirit, mental and physical fatigue due to the long duration of playing online games. Internet addiction occurs mainly because of easy internet access via wi-fi in community areas where many restaurants, small hotels, and residences are available. Children are free to get an internet connection.
Mental problems occur in the family community in Palmerah District before the capacity building program. Children and adolescents had mental fatigue, physical sicknesses such as eye fatigue, pain in the fingers, head, neck, and body due to the body position when doing online interaction and activities such as playing the game. Parents do not realize their children are mentally unhealthy, except for physical unhealthiness due to internet addiction and a lack of communication patterns that support their physical and psychological health.

Capacity building through improved family communication patterns has changed adolescents' bad habits by reducing online interaction and playing games and implementing balanced physical and online interactions with parents and fellow peer groups in the community. Treatment with knowledge sharing, coaching, and mentoring is carried out to improve the frequency and duration of online gadget usage by children, adolescents, and parents. Assistance was carried out for three months to obtain recovery through balanced communication between online and offline.

Mental health recovery requires ongoing accompaniment and coaching to families and communities in Palmerah County to maintain mental health, physical health, family health, and strengthen each family's relationship in the community. Coaching and mentoring are family assistance in a capacity-building program in a relatively short time and have proven beneficial for the community. However, the implication is that similar programs must be carried out continuously, considering that the environment inside and outside the community consider good habits bothersome.

These action research findings' theoretical implications suggest multi-discipline future research to study family harmony and technology-friendliness in daily life. The sudden adoption of technology can cause a gap between cultural values in the family and community, which results in users' mental health disruption, especially children and adolescents who are in a period of psychological and physical growth and during formal education with a heavy academic burden. Action research that advocates for families and communities on an ongoing basis is needed for each generation.

Acknowledgment

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References


Analysis on Halal Hotel Regulations in 5 Tourism Spots in Order to Increase Halal Tourism in Indonesia

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Abstract. To develop Indonesian halal tourism achievement, Majelis Ulama Indonesia issued Fatwa to standardize the halal tourism based on sharia principle. However, this only give the general principle. Hotel being one of the important aspect to the tourism has the need to have a regulation to standardize the technical aspect. To find out the results of each advantage and disadvantage of hotel halal tourism regulations in the 5 regions order give recommendation to regulate halal hotel in Indonesia. This research employs an empirical and comparative approach by analyzing each of the selected region’s regulations and the data obtained from the literature study and by interviewing sources and experts. Halal hotel regulations in various regions of Indonesia have their own classifications and standards. It is not clear whether the halal hotel referred to in various regulations is a sharia hotel or a Muslim friendly hotel. Also, there is no technical aspect standardization. This study would give recommendations to hotel halal regulation in order to protect consumer religious rights on tourism. This study relates to consumer protection aspect, tourism aspect, and law aspect, especially in Islamic Law and Public Governance.

Keywords: Islamic Law, Halal Hotel, Halal Tourism, Consumer Protection.

1 Introduction

Currently, the world's Muslim population is 1.8 billion of the world's population, which has reached 7.7 billion. [1] Muslims spent US $2.2 trillion in 2018 across the food, pharmaceutical, and lifestyle sectors influenced by ethics inspired by Islamic beliefs, and this is expected to reach US $ 3.2 trillion by 2024. [1] The halal lifestyle currently developing in the global world consists of halal food, Islamic finance, Muslim-friendly travel, modest fashion, halal pharmaceutical, halal cosmetics, and halal media and recreation. Expenditures for Indonesian Muslims for a halal lifestyle can be seen in the Table 1.

Indonesia has more than 17000 islands, more than 300 ethnic groups, 742 languages; there are world heritage sites, 51 national parks, and the world's 3rd largest biodiversity. Tourism is a strategic sector in contributing to the economy in Indonesia besides the oil and gas sector. The tourism industry is large and is seen as a sector that accelerates economic growth [2]. Therefore, the role of the national tourism sector is increasingly important in line with the development and contribution provided by the tourism sector through foreign exchange earnings, regional income, regional development, as well as in the absorption of investment and labor as well as business development spread across various regions throughout Indonesia [3].

Indonesia also has a majority of the population who adhere to the Muslim religion. This makes the halal tourism industry also growing. The government is taking serious steps towards
this. The development of Indonesian halal tourism has become one of the Ministry of Tourism's priority programs since 2014. To support this program, the government has formed a Team for the Acceleration of Halal Tourism Development. After five years running, in 2019, Indonesia was ranked first as a world halal tourist destination in the GMTI version or the 2019 Global Muslim Travel Index at the International level. According to The Global Islamic Economy Indicator, Indonesia has increased substantially from the tenth position in 2018 to fifth place this year, supported by the strength of initiatives to boost economic growth.

Table 1. State of the Global Islamic Economy 2019-2020

<table>
<thead>
<tr>
<th>Halal Lifestyle Sector</th>
<th>Indonesian Muslims</th>
<th>Global Muslims</th>
<th>Market Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food</td>
<td>US$ 173 Billion</td>
<td>US$ 1,37 Trillion</td>
<td>5.10%</td>
</tr>
<tr>
<td>Sharia Finance</td>
<td>US$ 86 Billion</td>
<td>US$ 2,52 Trillion</td>
<td>3.50%</td>
</tr>
<tr>
<td>Mode</td>
<td>US$ 21 Billion</td>
<td>US$ 283 Billion</td>
<td>4.80%</td>
</tr>
<tr>
<td>Media and Recreation</td>
<td>US$ 10 Billion</td>
<td>US$ 220 Billion</td>
<td>5.30%</td>
</tr>
<tr>
<td>Muslim Friendly Travel</td>
<td>US$ 11 Billion</td>
<td>US$ 189 Billion</td>
<td>6.80%</td>
</tr>
<tr>
<td>Pharmacy</td>
<td>US$ 5 Billion</td>
<td>US$ 92 Billion</td>
<td>5.70%</td>
</tr>
<tr>
<td>Cosmetics</td>
<td>US$ 4 Billion</td>
<td>US$ 64 Billion</td>
<td>4.90%</td>
</tr>
</tbody>
</table>

The increase in Indonesia’s ranking as a halal tourist destination cannot be separated from regional participation that is a favorite destination for halal tourism, such as West Nusa Tenggara Province, Riau Province, Nanggroe Aceh Darussalam Province, West Sumatra Province, DKI Jakarta Province, West Java Province, Central Java Province, Province Yogyakarta, East Java Province, and South Sulawesi Province. In fact, West Nusa Tenggara won two World Halal Travel Awards (WHTA) 2015 in World Best Halal Tourism Destination and World Best Halal Honeymoon Destination. This is because Lombok has relatively complete facilities to support halal tourism. In terms of food, Lombok has 60 halal-certified halal restaurants and 1,076 restaurants that claim to be halal even though they have not been certified by the Halal Product Guarantee Agency (BPJPH). As for other support, Lombok already has 8,456 mosques and 60 hotels that claim to be halal certified. Meanwhile, there are 510 hotels and 3,683 restaurants that claim to be halal certified in Jakarta and have 7,795 mosques [4].

Indonesia’s achievements in the halal tourism sector have the potential to continue to be improved. In its development, the Government of Indonesia through the Minister of Tourism and Creative Economy Regulation Number 2 of 2014 concerning Guidelines for Implementation of Sharia Hotels. Sharia, referred to here, is Islamic law principles as regulated by fatwas and/or has been approved by the Indonesian Ulema Council (MUI) [5]. Although Permenparekraf 2/2014 was revoked in its development, the government's enthusiasm in supporting the realization of halal tourism can still be seen by enacting Law Number 33 of 2014 concerning Halal Product Guarantee, which requires all products to enter, circulate, and be traded in Indonesia to be certified halal [6]. The Government made this reaffirmation through Law Number 11 of 2020 concerning Job Creation, which then made it easier for MSMEs to carry out their obligations to provide halal certification for the products they sold [7].

Thus, in the case of culinary tourism, namely food and beverages in Indonesia, halal certification is carried out by the Halal Product Management Guarantee Agency [6] based on the halal determination from MUI [7], which is marked with an official halal logo on food and beverage packaging. An inspection is carried out by The Food and Drug Supervisory Agency (BPOM) so that there is a clear difference between halal and non-halal food. Indonesia is synergizing with many parties to develop halal tourism, for example, the Ministry of Tourism,
which collaborates with the National Sharia Council (DSN), the Indonesian Ulema Council (MUI), and the Business Certification Institute (LSU) [8].

In supporting the development of halal tourism, the Indonesian Ulema Council issued a standardization in its fatwa on Islamic tourism guidelines. These guidelines regulate tourism to be held in sharia, which must comply with the principles of avoiding idolatry, immorality, and keeping away from useless and creating benefits both materially and spiritually.

Halal hotels are one of the areas that can be developed to support halal tourism in Indonesia. A study conducted by Jattanasan and Jaroenwisan [9] revealed that the sharia hotel features consist of the following 16 features: no alcohol, only halal food, conservative television service, majority of the staff are Muslim, Al-Quran & prayer books are available in every room, recreational facilities separate for men & women, there is a Qibla direction in each room, no entertainment such as night clubs, beds & toilets should not be placed facing the Qibla direction, art objects in the hotel do not depict the human form, there is a bidet in the bathroom, entertainment is Accordingly, hotels that are financed by Islamic finance and hotels must follow the principle of zakat.

Halal hotels or many are also referred to as sharia hotels, have developed in recent years. The emergence of halal hotels in Indonesia is one-way companies can compete with existing conventional hotels. By relying on sharia principles, it is hoped that halal hotels will attract the attention of tourists, especially Muslim tourists. Muslim tourists are expected to feel at home staying in a shrouded place in security, cleanliness, and sanctity. There is also no need to worry about praying because the Qibla direction has been given, the bathroom with holy water purifies, the food provided is halal food marked with an MUI certificate, even services from the hotel prioritize politeness, and no discotheques can cause side effects [10]. A halal hotel that is very important to support the halal tourism industry needs to be supported and considered by the government as policymakers and business actors. So, it is essential to find a special formulation to regulate halal hotels in Indonesia.

This paper will compare several halal tourism regulations, especially those regulating halal hotels in halal tourist choice destinations in Indonesia, and comparing them with halal tourism arrangements in Malaysia and Turkey developed earlier. This comparison is carried out to find the advantages and disadvantages of each halal hotel arrangement in Indonesia and find a strong formulation to make a halal hotel regulation in Indonesia

2 Method

The research method used in producing this paper is the normative legal research method. Legal research is a scientific activity based on methods, systematics, and certain thoughts that aim to study one or more specific legal phenomena by analyzing them. In normative legal research, researchers use library materials or secondary data consisting of primary legal materials, secondary legal materials, and tertiary legal materials [11] which regulate or discuss halal tourism or halal tourism, and good halal hotels, namely the Halal Tourism Regulation in each province, the MUI Fatwa on Halal Tourism, and other laws and regulations that regulate it. The data analysis technique used in this research is the qualitative data analysis technique. Efforts are made by working with data, organizing data, sorting it into manageable units, synthesizing, looking for and finding patterns, finding something important to study, and deciding what to write for others to read [12].
3 Results and Discussion

3.1 Terminology of Halal Hotels and Sharia Hotels

Halal term in Islam is known for the term whether or not to consume an item. ‘Halal’ used for products, for example are foods and cosmetics. Etymologically halal means it is permissible, free or detached [13]. Whereas in terms of halal is the law of an act or goods for consumption that is permitted by the Shari'a. For that is the term halal how to obtain it and halal substances. There are also those who say that halal is something that is permitted by the Shari'a to be done, used or attempted.

In its development, the etymology of ‘halal’ is not only used to refer to food or products that are consumed but more broadly, it can be used to refer to tours and hotels that comply with sharia principles. In fact, the term "halal" has now become a marketing trend that businesses use to attract Muslim consumers.

Islamic hotels are divided into two categories, namely, hilal one and two hilal sharia hotels [14]. Hafizuddin Ahmad, the Sharia Supervisory Board of Hotel Sofyan, added that in the formulation of the Permenparekraf, the three hilal categories were the highest level of Islamic hotels. In this case, the hotel has met all sharia principles, both in hotel management, facilities, restaurants, and financial management.

To be able to become a sharia hotel, hotels must go through the stages of the Sharia Hotel Business Certification, which is a process of giving certificates by the MUI DSN to the hotel business through audits to assess the suitability of products, services, and hotel business management with the criteria for Sharia Hotel Business. However, because the Permenparekraf was revoked in 2016, currently, the regulations regarding sharia hotels are no longer regulated nationally. These regulations are still regulated in regional level regulations, one of which is in West Nusa Tenggara Governor Regulation Number 51 of 2015 concerning Halal Tourism [15].

3.2 Regulation of Halal Hotels in Indonesian Halal Tourist Destination Cities

Halal hotels as accommodation are important things that need to be considered in the context of halal tourism. So, it needs to be regulated in a regulation. The authors in Table 2 have compared several local regulations in Indonesia regarding halal tourism which regulates halal hotels.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>West Nusa Tenggara</th>
<th>West Sumatra</th>
<th>Nanggroe Aceh Darussalam</th>
<th>Riau</th>
<th>DKI Jakarta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legal Instruments</td>
<td>West Nusa Tenggara Governor Regulation Number 51 of 2015 concerning Halal Tourism</td>
<td>West Sumatra Provincial Regulation Number 1 of 2020 concerning the Implementation of Halal Tourism</td>
<td>Qanun Aceh Number 8 of 2013 concerning Tourism. Halal tourism arrangements are more specifically regulated in city/regency regulations.</td>
<td>Riau Governor Regulation Number 18 Concerning Halal Tourism.</td>
<td>Governor of DKI Jakarta Regulation No. 158 of 2013 concerning Procedures for Halal Certification for Restaurants and Non-Restaurants</td>
</tr>
</tbody>
</table>
### Halal Hotel Arrangement

<table>
<thead>
<tr>
<th>Substance</th>
<th>Standardization of halal hotels:</th>
<th>Only explains the criteria for accommodation businesses that are included in the halal tourism business</th>
<th>The obligations of star hotel managers:</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>suitable facilities for purification are available;</td>
<td>a. maintain and prevent the use of star hotels from activities that can interfere with security and order general and violates Islamic law</td>
<td>a. There are proper facilities for purification</td>
</tr>
<tr>
<td>b.</td>
<td>available facilities that make it easy to worship;</td>
<td>b. maintain hygiene and sanitation in hotels and the yard environment</td>
<td>b. Some facilities make it easy to pray</td>
</tr>
<tr>
<td>c.</td>
<td>available halal food and drinks;</td>
<td>c. Halal food and drinks are available</td>
<td>c. Halal food and drinks are available</td>
</tr>
<tr>
<td>d.</td>
<td>facilities and an atmosphere that is safe, comfortable, and conducive to families and businesses;</td>
<td>d. facilities and an atmosphere that is safe, comfortable, and conducive to family and business; and</td>
<td>d. facilities and an atmosphere that is safe, comfortable, and conducive to family and business; and</td>
</tr>
<tr>
<td>e.</td>
<td>maintained sanitation and environmental hygiene.</td>
<td>e. maintained sanitation and environmental hygiene.</td>
<td>e. maintained sanitation and environmental hygiene.</td>
</tr>
</tbody>
</table>

### 3.3 Evaluation of Domestic Halal Hotel Arrangements

Evaluation of Domestic Halal Hotel Arrangements lacks a detailed explanation of the accommodation business in halal hotels in Indonesia. This results in different standards of halal hotels. So, a certified sharia hotel is needed to support the criteria and standards of sharia hotels. Therefore, it is necessary to have regulations governing Islamic hotels' criteria and standards as a reference for these Islamic hotels.

### 4 Conclusion

Indonesian halal tourism has a good reputation in global circles. This will have a good impact on improving the nation's economy. In general, the Indonesian government has realized the potential for the development of halal tourism in Indonesia. This is evidenced by the provision of various arrangements that support the implementation of halal tourism, both at the national and regional levels, especially in terms of halal accommodation. The replacement arrangements regarding the guidelines for operating halal hotels that have been revoked need to be announced immediately, considering that halal accommodation is an important aspect to support halal tourism in Indonesia. So, from this research, halal tourism requires regulations regarding certified sharia hotels to support the criteria and standards of sharia hotels that provide...
safety and comfort for the whole family when traveling. This is because security, health, beauty, and hospitality are the concepts of halal tourism and halal hotels following Islamic law.

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References

[7] Indonesia, "Undang-Undang tentang Cipta Kerja, UU Nomor 11 tahun 2020, LN No. 245 tahun 2020, TLN No. 6573".
Study Demographic Driven on Indonesian Covid-19 Transmitted

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Abstract. Since the epidemic started in Wuhan, China, a new Chinese coronavirus, a relative of the SARS virus, has infected a million people worldwide. Until this article was published, more than 300,000 people have infected the new Coronavirus. This research is descriptive study to show whether coronavirus disease spread is population density driven or not among Indonesian province. Indonesian population data retrieved from the Indonesian Central Agency on Statistics published in 2020, and Covid-19 patient data extracted from Indonesian Official Central for Disease Control for Covid-19 data. In this study, we found covid-19 spread intensively in dense population provinces like Jakarta and the province in java island than un dense province. Educational background seemingly did not contribute to a lower incidence of covid-19. Nevertheless, there is no link between the dense population and the covid-19 infected. Finally, the educational context did not seem to have led to a lower incidence of covid-19. Further study should be done to dig more profound the various factor that affects the spreading of Covid-19.

Keywords: Indonesian covid-19, dense population

1 Introduction

SARS coronavirus (SARSCoV)² is a new RNA coronavirus that belongs to the same family as SARSCoV and Middle East respiratory syndrome coronavirus (MERSCoV). SARS-CoV-2 was discovered in late 2019 as the origin of a pneumonia epidemic in Wuhan, from which it quickly spread across China, infecting more than 300,000 people [1], [2]. SARS-CoV-2 infection, like other coronaviruses, primarily causes flu-like symptoms, though severe lung damage has been reported in people of all ages, as well as acute respiratory distress syndrome (ARDS) and subsequent multiorgan failure in specific high-risk individuals, such as the elderly or those with multiple comorbidities, who are prone to severe acute respiratory failure [3]. The novel coronavirus spreads mostly through the nasal passages and uses the same SARS-CoV receptor, angiotensin-converting enzyme 2 (ACE2). The primary cause of transmission, which occurs predominantly by infected droplets, hands, or surfaces, is human-to-human aerosol transmission. By close interaction with mucous membranes, virus particles that are found in secretions from the respiratory system of an infected person infect others [4].

Destruction to the pulmonary interstitial arteriolar walls suggests that considering the virus's pathogenic impact, the inflammatory response plays a significant role in developing the disease [5]. Other common characteristics of critical COVID-19 patients, besides respiratory
failure, include a sudden decrease in the patient's health status around two weeks after induction [6]. Today, implementing traditional healthcare-associated infections such as daily handwashing with soap and wearing a face mask are the most successful prevention techniques being implemented worldwide [7] and along with the implementation of social distancing steps, instructions for "stay in place," thorough testing, and touch tracing [8]. The Indonesian government has practiced those global recommendations through direct order by Indonesia President Joko Widodo, implemented in Government regulation No. 21/2020 [9].

In terms of health, urbanization is one of the most fundamental shifts that society is experiencing today and will face in the future decades [10]. Over half of the world's population already lives in cities; by 2050, this proportion will have risen to over 70%, with more than half of the urban population residing in cities with populations of more than 500,000 [11]. Indonesia's present population is expected to peak at 337.38 million by 2067, then fall in succeeding decades, according to current projections. Between 2000 and 2010, Indonesia's population grew at an annual rate of 1.49 percent on average. Indonesia's yearly growth rate is expected to improve by roughly 1.07 percent by 2020, implying that the country's population is currently growing at a rate of about 2.73 million people per year [12]. Even though it is common to correlate population with disease spread, but limited studies demonstrated the association between transmitted diseases, in this case, covid-19, with a population density.

The first case identified in Indonesia is two Indonesian people living in Depok, which has a history of contact with Japanese people first believed to have suffered from the disease [13]. Following that, in Jakarta, the capital city, several covid-19 suspects spread rapidly with a large number of rates. It is general knowledge that dense urban areas, such as Jakarta, pose a health risk. Nonetheless, "density" is a broad term that encompasses a variety of aspects of the urban environment, each of which may have influenced the spread of COVID-19 in different ways. While it is difficult to draw definitive conclusions about why some areas were more affected than others at this stage of the crisis, there is a significant lack of correlation between population density, as defined and calculated in the policy and planning sectors, and rates of COVID-19 cases per capita in Jakarta and other Indonesian provinces. Here we study the correlation between density and covid-19 spread across Indonesia province.

2 Method

This is a descriptive study of covid-19 infected in Indonesia province. The Indonesian province population was retrieved from the Indonesian Central Agency on Statistics (BPS) published in 2020, and total number covid-19 patient data were extracted from the Indonesian Official Central for Disease Control for Covid-19 data accessed on September 30, 2020.

3 Results and Discussions

Density is a fascinating aspect that incorporates many urban society elements. In different forms, each of which may have influenced the COVID-19 outbreak. It is possible to clearly describe population density as the number of species per area or volume unit [14]. More than 300 ethnic and linguistic groups make up Indonesia's population, with Javanese constituting the majority and most powerful political force. These figures are from the previous national census in 2000. The Indonesian population's ages still present a fascinating story. In the year 2000, 27.3
percent of Indonesia's population was between the ages of 0 and 14, 66.5 percent was between the ages of 15 and 64, and just 6.1 percent was over the age of 65 [12]. According to the Indonesian Central Agency on Statistics published in 2020, Jakarta is the densest city among other Indonesian provinces [15], and accidentally, Jakarta contributed more than 25 percent total covid-19 patients among provinces in Indonesia show in Figure 1.

Although Jakarta was the first city to be infected with covid-19, it is difficult to say why some locations have been hit worse than others in the early stages of a pandemic with unprecedented consequences. With numerous people sharing a home, public space, and putting together living circumstances in institutional settings, the probability of spreading in the form of a virus passed from person to person might all potentially increase. The results revealed a clear lack of correlation between viral case rates and the number of people living per square mile, demonstrating that population density is not a significant predictor of covid-19’s effects show in Figure 2. Nevertheless, when we dig further, the Java and Bali Island, the densest island in Indonesia, experienced high covid-19 infected than other un-dense provinces in Indonesia like Sumatra or Sulawesi. DKI Jakarta was excluded from the chart since it has big differences of covid-19 infected and population density than other Indonesian province.
Over 1 billion students are at risk of falling behind as a result of school closures targeted at controlling the spread of COVID-19. In Indonesia, the Ministry of National Education is in charge of education. Six years of primary education and three years of junior high school are required. After optional pre-school playgroups, which may begin in a child's third year, the primary stage continues. Higher education associated with intellectualism will, to some extent, increase the likelihood to get a proper job, and eventually, there is a link with the economic situation, health, and hygiene-related knowledge [16]. Although, in several nations, growing pressure has been placed on them since the 1980s. Higher education leads directly to national economic regeneration and growth, too. However, Indonesian covid-19 transmitted shown no correlation between education level and the number of covid-19 infected show in Figure 3. Furthermore, a similar result has been shown when we correlate between the pauper number and covid-19 infected show in Figure 4. Certain density factors, such as the high number of individuals sharing living facilities or the high number of workers coming into contact at work, have contributed to the spread of COVID-19. Nonetheless, it is not connected with COVID-19 infection, as determined by the average number of individuals per square kilometer density.
Fig. 3. Education level against covid-19 infected.

Fig. 4. The ratio between Pauper Population that infected with covid-19 among the Indonesian province.
4 Conclusion

Covid-19 spread intensively in dense population provinces like Jakarta and the province in java island than un dense province. However, there is no correlation between dense population and covid-19 infected. The last is educational background seemingly did not contribute to a lower incidence of covid-19.

Acknowledgement

Thank you to the Department of Research, Community Service, and Publication of The University of Muhammadiyah Pekajangan Pekalongan Indonesia for supporting this study.

References

A Correlational Study on Analogical Reasoning, Mathematical Creativity, and Logical Operation of Primary School Prospective Teachers

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Abstract. The purpose of this study was to find the relationship between analogical reasoning, mathematical creativity, and logical operation developed by the prospective teachers. The research population was the fourth semester students of one state Islamic university in West Java and one state Islamic university in Central Java. A random sampling technique was used to obtain 47 primary school prospective teachers as the research samples from both universities. The results showed that (a) more than 50% of primary school prospective teachers had formal logical operation; (b) there was a significant relationship between analogical reasoning and mathematical creativity; (c) there was a significant relationship between mathematical creativity and logical operation; (d) there was no significant relationship between analogical reasoning and logical operation.

Keywords: Analogical reasoning, mathematical creativity, logical operation, prospective teacher

1 Introduction

Humans’ daily activities cannot be separated from the mathematical activities, starting from the activities related to numbers to those requiring calculation. In fact, the mathematical concept which actually has a great benefit was known unreal and taught meaningless. According to Wijers and de Haan [1], mathematics is given to develop the logical thinking ways. Furthermore, Russefendi [2] asserts that by knowing the essence of the real mathematics, the teachers can select the most appropriate teaching and learning strategies in the classes. In fact, one key success of students in developing their logical thinking ways is related to a competent teacher. However, mathematics has an abstract research object and becomes one problem causing a teacher finds it difficult in teaching mathematics at school [3].

In response to the pedagogical and professional competence, a learning case was exemplified by Wu [4] stating that in Grade 6 – 8 of primary education levels, the students should have been taught fraction with minimum abstraction and basic mathematical abstraction. In fact, those materials have not been strongly given to the primary education students. Furthermore, the researchers conducted preliminary research on (Islamic) Primary School teachers who have been teaching for 7 years at (Islamic) Primary Schools related to how the teachers taught the following fraction addition to the students who have just known about the fraction calculation operation.
The (Islamic) Primary Teachers smoothly explained that:

\[
\frac{1}{3} + \frac{1}{2} = \frac{1}{3 \times 2} + \frac{1}{2 \times 3} = \frac{2}{6} + \frac{3}{6} = \frac{5}{6}
\]

(1)

It was found that the teachers found it difficult to concretely explain that routine problem. The problem faced by the teachers and higher education students above was not purely their mistakes. Thus, it is necessary to investigate the prospective teachers’ education processes in the Teacher Training Institute (known as LPTK/Lembaga pendidikan Tenaga Kependidikan). The ability as explained in the case of preliminary research above was identified by Sriraman [5] showing that analogical reasoning is essentially possessed by the prospective teachers to form a conceptual knowledge in the (Islamic) Primary School students’ thinking levels. According to Richland and Begolli [6], in-depth understanding will be obtained by the students if the teachers have taught the mathematical concept using analogy. Furthermore, according to Poincare in [7], what is obtained in the analogical reasoning process is one characteristic of creative attitudes, that is, an activity to obtain knowledge from a problem in analogical reasoning as a knowledge source to obtain the other knowledge.

The analysis on the preliminary research result shows that the students as prospective (Islamic) primary teachers should not only well master the analogical reasoning but also the mathematical creativity ability related to the mathematical concept mastery and adjustment to the students’ thinking level in various ways. Based on the learning readiness age according to Piaget, the students at the (Islamic) primary school are in the concrete thinking level, while the higher education students as the (Islamic) primary school prospective teachers according to Ojose [8] are at the formal operation level. The higher education students as the prospective teachers at the formal operation level are expected to have the analogical reasoning and mathematical creativity ability to teach at the level of (Islamic) primary school levels or concrete operation stages. Thus, this research will try to describe the logical operation level of the higher education students as the (Islamic) primary school teachers and the relationship between analogical reasoning, mathematical creativity, and logical operation developed by the prospective teachers.

1.1 Analogical Reasoning

Analogy is inductive mechanism based on the structural comparison from the mental representation. According to Gentner & Smith [9], analogy is the core of higher-order cognition. Humans’ analogical reasoning highly depends on the work of memory and important functions supporting the brain parts [10].

According to Gentner and Smith [9], analogical reasoning is the ability to feel and use the similarity relationship between two situations or events and considered as an important aspect in humans’ logic. According to Polya in [11], an evidence is considered incomplete if only found and written. The most important step is analyzing and learning from the evidence to solve the future problems. There are many different approaches in obtaining the analogical aspects, including setting or mapping between the analog and abstraction part in a general conclusion.

According to Sriraman [5], mathematics can be obtained using various analogies. If the students find some concepts which are too abstract to solve, one of the strategies used to help
The students build their conceptual knowledge is using their analogy. For example, the best way to teach the abstract relation is by making an alignment among the similar examples [12].

The analogical reasoning intended in this research is the students’ ability to use the relational relationship to analyze the problem. This ability is greatly important to teach mathematics. The (Islamic) primary school teachers have the ability to use their analogy from the abstract mathematical concept to be related with the existing context in the students’ surroundings.

1.2 Mathematical Creativity

Creativity is simply described by Poincare as sharpness or choice. Referring to Poincare, the first stage mentions that creativity is obtained from work to obtain knowledge from, a problem, called as preparatory Stage. The second stage is incubatory, that is, a problem is set aside for a certain period and logic is used for the other problem. The third stage is illuminatory, that is, problem solving may surprisingly arise when an individual does the other unrelated activity. However, the creativity process has not yet ended in this stage. The fourth stage is expressing the solution in language or writing [7].

According to Guilford in [13] associating fluency, flexibility, and originality is an important aspect in creativity known as structure from intellect model. Fluency shows some outputs, flexibility shows some type changes (meaning, interpretation, strategy) in term of new objective meaning. Originality thinking means extraordinary, different, or more brilliant response results. Elaboration in thinking means someone’s ability to result in an obvious step in making the working plan. Guilford thinks that creative thinking obviously involves classification as divergent results. According to Russefendi [2], the creativity character can be trained, habituated, and implanted in children since at their early age to explore, acquire, discover, and solve problems.

The mathematical creativity ability discussed in this research, especially in fluency, flexibility, and originality indicator is the base to assess the mathematical creativity due to the diversity and novelty of ideas created by the higher education students.

1.3 Logical operation

Logic generally means what is known and thought by someone. According to Jung et al. [14] all psychological processes in humans interact each other, as an example is related to what is being thought (logically) by someone on how someone feels (emotions). According to the intellectual model proposed by Guilford [15], operation is the possible intellectual action type when thinking, such as observation, memory, convergent product, divergent product, and evaluation. Thus, logical operation is someone’s intellectual action interacting with all arising processes inside the individual himself.

When seeing from the age of the Islamic Primary School Teacher Education (known as PGMI/Pendidikan Guru Madrasah Ibtidaiyyah) students, their thinking stage should be at the formal operation level. Utilizing the logical feature developed in the theory of Piaget, this research was conducted to identify the students’ thinking stages from logical operation, consisting of grouping, numbering, logical multiplication, compensation, proportion, opportunity, and correlation. Those identifications are based on the concrete operation that is, understanding the logical operation assisted with concrete things, while formal operation is a stage which has abstractly understood mathematics through concrete thing manipulations, by developing models, diagrams, etc.
2 Method

This research used a quantitative correlational study. The research population was the fourth year’s students of (Islamic) Primary School Teacher Education Study Program in one Islamic State University in West Java and one Islamic State University in Central Java. A random sampling technique was used to collect 47 students of prospective teachers. The instruments used are written tests to figure out their analogical reasoning, mathematical creativity, and logical operation ability in accordance with each indicator. The analogical reasoning and mathematical creativity ability tests were developed by the researchers. Meanwhile, the logical operation test was adopted from Test of Logical Operation (TLO) for mathematics developed by Leongson and Limjap [16]. The students’ answers were analyzed using a guideline known as Holistic Scoring Rubrics from Cai, Lane and Jakabesin [17].

3 Results and Discussion

The presented research results include the description of (Islamic) Primary School prospective teachers’ logical operation and the relationship of prospective teachers’ analogical reasoning, mathematical creativity, and logical operation ability.

3.1 Description of (Islamic) Primary School Prospective Teachers’ Logical Operation Level

The following is the division of logical operation levels proposed by Piaget [16] based on the obtained test scores covering the initial concrete stage with 0 – 35; end concrete stage with 36 – 70; initial formal stage with 71 – 105; and end formal stage with 105 – 140. The obtained results presented in Table 1.

<table>
<thead>
<tr>
<th>Logical Operation Level</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Concrete</td>
<td>2.13%</td>
</tr>
<tr>
<td>End Concrete</td>
<td>17.02%</td>
</tr>
<tr>
<td>Initial Formal</td>
<td>25.53%</td>
</tr>
<tr>
<td>End Formal</td>
<td>55.32%</td>
</tr>
</tbody>
</table>

Table 2 shows that more than 50% of (Islamic) Primary School prospective teachers from both universities under study had been in the mathematical logical operation level of end formal. However, many (Islamic) Primary School prospective teachers (19.15%) were at the concrete level. This finding was in line with that found by Bakir and Bıçer [18] using different tests by measuring the logical thinking ability of prospective science teachers and finding that 38.17% of prospective science teachers was at the concrete operation stage, 61.41% of prospective science teachers was at the transition stage, and 0.42% of prospective science teachers was at the formal stage. Using the same test, the research conducted by Leongson & Limjap [16] on the prospective science teachers showed that the initial concrete level was at 10.17%, end concrete at 50.85%, initial formal at 28.81%, and end formal at 10.17%. These showed that there was a similarity of some prospective teachers’ logical operation at the concrete level which should be at the formal level. There was a high percentage difference at the formal level in this
research which probably caused by the (Islamic) Primary School prospective teachers in this research obtained the mathematical courses while the other research’s samples were the prospective science teachers.

3.2 The relationship of analogical reasoning, mathematical creativity, and logical operation ability of students of prospective mathematical teachers

To know the relationship between variables in this research, the hypothesis testing to conduct was as follows.

\[ H_0 : \text{There is no relationship (correlation) between two variables} \]
\[ H_1 : \text{There is a relationship (correlation) between two variables} \]

The decision was made based on the following principles [19]:

- If probability is ≥ 0.05, Ho is accepted
- If probability is < 0.05 Ho is rejected

The research results were obtained based on the SPSS program as follows:

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Correlation</th>
<th>Probability</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analogical reasoning - Creativity</td>
<td>0.417</td>
<td>0.005</td>
<td>Significant</td>
</tr>
<tr>
<td>Analogical reasoning – Logical operation</td>
<td>0.266</td>
<td>0.071</td>
<td>Not Significant</td>
</tr>
<tr>
<td>Creativity – Logical operation</td>
<td>0.441</td>
<td>0.02</td>
<td>Significant</td>
</tr>
</tbody>
</table>

Table 2 above shows that analogical reasoning-creativity and creativity-logical operation had positive and significant relationship. It means that the higher the first variable, the higher the second variable. This relationship was at the medium level. Higher analogical reasoning was related to the ability to feel and use the similarity relationship between two situations or events. This was also related to the creativity that is, using various strategies in solving the mathematical problems [20].

Positive and significant relationship between creativity and logical operation was caused by the creativity ability in mathematics used when determining various strategies. According to Leongson & Limjap [16], logical operation can be identified from the ability of prospective teachers in solving problems. Thus, there was a relationship between the ability of mathematical creativity and logical operation, that is, the ability in solving the mathematical problems.

In this research, there was a positive relationship between analogical reasoning and logical operation. However, the relationship of both variables was not significant because logical operation contained reasoning in solving problems, yet in logical operation, the students analyzed and correlated different situations.

4 Conclusion

When related to the knowledge developed in someone, Piaget classified age at above 11 years old or the (Islamic) Primary School prospective teachers at the formal operation stage. The results of this research showed that more that 50% of (Islamic) Primary School prospective teachers were at the formal logical operation level. However, there was no significant
relationship between the ability of logical operation and analogical reasoning. Analogical reasoning itself is the ability to feel and use the similarity relationship between two situations or events as the important aspects in humans’ logic. According to Poincare, one of those characteristics was creative character, that is, an activity to obtain knowledge from a problem. This supported a significant relationship between analogical reasoning and mathematical creativity. Besides, there was a significant relationship between mathematical creativity and logical operation. In the mathematical logical operation, the ability to solve problems developed as various strategies or mathematical creativity did.

References

Kansei Factor in Developing Design of Women’s Bag Materials of Combination of Doyo Woven Fabric and Genuine Leather

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Abstract. East Kalimantan Typical Handicraft is one of the fields that has a major contribution in improving the regional economy. However, there are not much product developments have been carried out by the UKM Crafts in East Kalimantan. Meanwhile, special East Kalimantan handicraft products can contribute to one of the East Kalimantan Regional Medium-Term Development Plans, namely the development of ecotourism as souvenirs. The methodology used in this research was factor analysis is part of kansei engineering. From the research, it can be concluded that factors that influence people's preferences in choosing bags made of doyo woven fabric and genuine leather were the main factors: Emotional Appeal and Design with a variance of 29.003%, color factor with a variance of 16.624 %, design details factor with a variance of 11.864% and material factor with a variance of 9.728%.

Keywords: Bag, Factor, Doyo woven fabric, Genuine leather, East Kalimantan

1 Introduction

The creative economy industry in Indonesia provides the largest export contribution to Indonesia's Gross Domestic Product (GDP). Of the sixteen creative economy sub-sectors that exist, handicraft products are among the top three contributing sub-sectors. According to BPS data released by Bekraf, the biggest contributors to Indonesia's creative economy GDP in 2017 were the fashion sub-sector as much as 41.4%, then culinary 17.6% and nearly 15% craft. These three sub-sectors are also the top contributor to Indonesia's exports. First, 41 fashion at US $ 11,964 million, then crafts as much as US $ 6,000 million (6 billion), only culinary at US $ 1,300 million (1.3 billion). With so many contributions from craft and fashion products, there are still wide opportunities to always develop craft and fashion products. Craft products are of various types, ranging from wood crafts, metal crafts, textile crafts and other crafts. It is very interesting to develop craft products that also function as fashion.

East Kalimantan is one of the provinces in Indonesia which has various mainstay handicraft products which also contribute to the national GDP. These distinctive crafts include samarinda woven sarongs, beads, tumpar embroidery, ironwood crafts, rattan and doyo silk woven fabrics. The doyo ulap woven fabric is a superior craft in East Kalimantan because it has its own peculiarities, where the fiber is from the doyo plant which is widely grown in West Kutai. Initially, doyo weaving was used as traditional Dayak Benuaq clothing for events such as
funerals and wedding ceremonies. Currently doyo weaving is growing both in terms of function and design, such as the shape of the motif and the color of the fabric. Ulap Doyo woven fabrics have been developed into fashion products such as bags, shoes, sandals and others. Previous research has been carried out on the development of fashion products from doyo woven fabrics, namely women's handbags. The development of women's handbags was made based on the results of research that gathered preferences or preferences from the community for women's handbags made from doyo woven fabrics in terms of bag elements such as bag handles, bag face cover shape, bag type, side joint of the bag and the type of material used. can be combined with doyo ulap woven fabric material. The results obtained are that the public prefers women's handbags made of doyo woven cloth with the handle with ring and round tabs, the cover is a flap with hidden magnetic closure, the pocket type is pocket with zippers, the sampler is button tabs. on sides and the combined type of material is genuine leather [1].

Product development research by looking at the preferences or choices of the user community is widely carried out today, such as: table clocks made of bamboo [2], coat designs [3] Malang handicraft products [4], baby bag design [5] rattan dining chair design [6], the development of an affective design methodology [7], a combination design of a rocking horse and a children's folding chair [8], watch design [9], apparel product design [10], textile motifs and colors [11], bag designs made of genuine leather [12].

There are no studies that discuss the factors that influence people's preferences / choices for women's handbags made from a combination of doyo and genuine leather based on the composition of the design. This research was conducted to find out what factor influence people's preferences for women's handbags made from a combination of doyo silk and genuine leather.

2 Methods

The method used in this research is Kansei engineering with the stages of preliminary research, collecting of kansei words, making questionnaire semantic differential I, distributing questionnaire semantic differential I and statistical I analysis.

2.1. Product Design

In this research, a new design of women's handbag made from a combination of doyo and genuine leather is designed based on the customer's kansei. However, before designing a new product design, first determine:

2.1.1. The target groups

Based on interviews with doyo caterpil ature studies on fashion products made from doyo, the market segmentation is based on age; late adolescents 17-25 years, early adults 26-35 years, late adults 36-45 years and early seniors 46-55 years and gender; lar entrepreneurs as well as literwoman.
2.1.2. A niche markets

The advantage of a women's handbag product made from a combination of doyo silk and genuine leather is that it is natural, where doyo silk and genuine leather are both environmentally friendly and strong.

2.1.3. New product specifications

At the end of the research, a product specification would be achieved in the form of a doyo ulcer application and genuine leather into a women's handbag product based on people's preferences / choices.

2.2. Kansei Words

The collection of Kansei Words takes place over sixteen days through:

2.2.1. Interview and fill out a questionnaire

Interviews conducted with customers of doyo ulap products were conducted both formally-informally and directly-indirectly at various locations such as universities, housing estates, offices and others. The questionnaire was also filled out for 102 respondents.

2.2.2. Reference from the designer website

To enrich the kansei words obtained, they are taken from word references from social media related to fashion from ulap doyo such as Facebook Doyo Mungaq.

2.2.3. Fashion designer

There were consultations with fashion designers from Bandung, Mia Ratmelia, M. Ds and from Surabaya, Eri Naharani Ustaza, M. Ds, who is also the owner of the boutique Rahdia Kinan. From the results of this collection, a total of 66 kansei words for women's handbags made from a combination of doyo and genuine leather made into K-Cards before finally being grouped into category classification and designed as a Semantic Differential 1 questionnaire.

2.3. Category Classification

Category Classification is a method for reducing data by creating levels (levels) from the main concept to the sub-level concept. For Kansei Words Ulap Doyo in this study, of the kansei words found, the categorization was classified into 13 groups where each group contains about 2 to 10 kansei words. This category classification is determined based on grouping of similar words. The 13 groups of the kansei words are fashionable, ergonomic, picturesque, proud, therapeutic, accessories, bright, light, character, unique, elegant, ethnic dominant, patterned and textured. At the initial stage, a grouping of kansei words is made. This grouping is done by means of equality and closeness of the meaning of words according to terms in the design field.
2.4. Differential semantic questionnaire 1

In this questionnaire, respondents will assess the criteria for women's handbag products made from a combination of doyo silk and the desired genuine leather by providing an assessment of the pairs of kansei words using the Semantic Differential technique (SD Evaluation 1). The Kansei words that make up the SD 1 questionnaire 1 are the main concepts of the previous category classification. The following are pairs of kansei words used in the SD I questionnaire.

3 Results and Discussion

3.1. Validity and reliability test

After distributing the Semantic Differential, I questionnaire, valid adjectives were obtained, namely proud, picturesque, ergonomic, uniq, elegant, ethnic dominant, little accessories, patterned, bright, textured and light (adjectives). From the calculation results, the reliability value for women's handbags made of a combination of doyo silk and genuine leather is 0.780. So, it can be concluded that all variables in the questionnaire are said to be reliable.

After redistributing by eliminating fashionable and characteristic variables, the questionnaire was distributed to a number of 102 respondents, with validity and reliability calculations as follows. The validity test aims to determine whether a questionnaire is valid or not. A questionnaire is said to be valid if the question is able to reveal something that you want to measure in a study. The results of the conclusion of the validity test, it can be seen that all variables are valid because they have $r_{count} > r_{table} (0.202)$ and have a significance of less than 0.05 (5% error rate). So that all variables will be included in the next calculation process. Reliability test shows the consistency and stability of a score (measurement scale).

Reliability differs from validity in that it focuses on issues of consistency and is more concerned with issues of accuracy. The step in testing the reliability is to look at the crobach alpha value. If the Cronbach alpha value is $\geq 0.6$, the variable is said to be reliable (Ghozali, 2002). From the calculation results, the reliability value for women's handbags made of a combination of doyo silk and genuine leather is 0.710. So, it can be concluded that all variables in the questionnaire are said to be reliable.

3.2. Factor analysis

In the Extraction Sums of Squared Loadings section [2] shows the number of variations or the number of factors that can be formed, in the output results above there are (two) variations of factors, namely 29.003; 14,624; 11,864 and 9,728. From the rotated component matrix, there are formed factors, namely emotional appeal and design, color, design details and material.

The Extraction Sums of Squared Loadings section in Table 1 shows the number of variations or the number of factors that can be formed, in the output results above there are 4 (four) variation factors, namely 29.003; 14,624; 11,864 and 9,728.
Table 1. The extraction sums of squared loadings sections

<table>
<thead>
<tr>
<th>Component</th>
<th>Total</th>
<th>Initial Eigenvalues</th>
<th>Extraction Sums of Squared Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>% of Variance</td>
<td>Cumulative %</td>
</tr>
<tr>
<td>1</td>
<td>3.190</td>
<td>29.003</td>
<td>29.003</td>
</tr>
<tr>
<td>2</td>
<td>1.609</td>
<td>14.624</td>
<td>43.627</td>
</tr>
<tr>
<td>3</td>
<td>1.305</td>
<td>11.864</td>
<td>55.491</td>
</tr>
<tr>
<td>4</td>
<td>1.070</td>
<td>9.728</td>
<td>65.219</td>
</tr>
<tr>
<td>5</td>
<td>0.823</td>
<td>7.483</td>
<td>72.702</td>
</tr>
<tr>
<td>6</td>
<td>0.704</td>
<td>6.400</td>
<td>79.102</td>
</tr>
<tr>
<td>7</td>
<td>0.653</td>
<td>5.941</td>
<td>85.042</td>
</tr>
<tr>
<td>8</td>
<td>0.488</td>
<td>4.439</td>
<td>89.481</td>
</tr>
<tr>
<td>9</td>
<td>0.425</td>
<td>3.862</td>
<td>93.343</td>
</tr>
<tr>
<td>10</td>
<td>0.381</td>
<td>3.461</td>
<td>96.804</td>
</tr>
<tr>
<td>11</td>
<td>0.352</td>
<td>3.196</td>
<td>100.000</td>
</tr>
</tbody>
</table>

Thus, people’s preference for bags made of doyo woven fabric and genuine leather is mainly influenced by emotional appeal and design, for example the beauty of the product, the uniqueness of the product, the comfort of the product, the elegance of the product and being interested because it is proud to have a bag made of products doyo woven fabric and genuine leather.

The second factor that influences people to buy bags made of doyo woven fabric and genuine leather is the color factor, including the motif on the material. Meanwhile, design details factors such as the presence of bag accessories, whether or not the bag is light or not, and the material factor are the last things that people consider when buying bags made of doyo woven fabric and genuine leather.

4 Conclusion

From the research, it can be concluded that factors that influence people’s preferences in choosing bags made of doyo woven fabric and genuine leather were the main factors:
- Emotional Appeal and Design with a variance of 29.003%,
- Color factor with a variance of 16.624 %,
- Design details factor with a variance of 11.864% and 39
- Material factor with a variance of 9.728%.

Acknowledgment

Our gratitude goes to Samarinda State Polytechnic who has funded this research and also to the organizer of the Borobudur 2 international seminar who has provided an opportunity so that this research can participate.
References


Family Barriers Treating Heart Failure Patients

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Abstract. This research aims to explore the barriers that families experience in treating heart failure patients. Qualitative design was chosen to get information by conducting in-depth interviews on 19 families of heart failure sufferers. Data analyzed using content analysis techniques on verbatim transcripts obtained from interviews manually. The study produced five themes, namely 1) lack of knowledge to be a family inhibition factor in treating heart failure patients, 2) nonpharmacological therapy is given to families to address heart failure complaints, 3) instrumental and emotional support provided by families in treating heart failure patients, 4) attitudes to surrender to God being a family force in treating heart failure patients, and 5) changes in the patient's health condition leading to a change in the role of heart failure patients in the family. The results concluded that families experience barriers in providing instrumental and emotional support due to a lack of knowledge and pessimistic attitudes due to changes in heart failure patients' conditions. The results of this study are expected to have implications for hospital services. Hospital management is expected to provide a particular nursing assessment form of family knowledge about the care of heart failure patients at home and health education for families to be of the interventions in patient care.

Keywords: Barriers in care; Family; Heart Failure; Qualitative Research

1 Introduction

The heart is an organ that serves to pump blood containing oxygen, residual metabolism, and hormones that are important for the functioning of organs in the body [1]. If the heart has abnormalities, then the function of the heart as a blood pump will fail. [2] stated that heart failure is a symptom or syndrome of the heart with a loss in pumping blood. The body resulting in unfulfilled metabolism to meet the needs of nutrients, and there is a lack of oxygen to the body's organs and impacts the decrease in body function.

Symptoms arising from decreased body function of heart failure patients include weak body, rapid fatigue, pounding, tightness during activities, tightness at night, tightness at rest, cough, anorexia, and cold sweats [1]. Heart failure sufferers are treated by taking general measures to lower heart workload [3]. On the other hand, prevent pain, reduce the risk of decreased cardiac bulk, improve self-care ability, reduce anxiety, comply with early treatment programs, and prevent complications.

Decreased bodily function require the family's role as a service provider to care for patients while at home. One of the parts and duties of the family in health care is to care for sick family members [4]. Families in Indonesia are an integral part of the patient caregiving process and play an essential role in the treatment and recovery period of patients [5].
Heart failure patients contribute to self-care, self-care, symptom monitoring, and self-care management [6]. The family's role in self-maintenance includes monitoring treatment, educating patients about monitoring symptoms, providing motivation in conducting activities, and monitoring dietary arrangements, and suggesting a low-salt diet. The family's role in self-care management, such as recognizing symptoms and the implementation of treatment [7]. Heart failure patients' self-care ability is influenced by social support, control of emerging symptoms, and knowledge possessed by the family [8]. Although families contribute to self-care care and management of heart failure patients, some of their practices were incorrect. This study aims to explore family barriers in treating heart failure patients.

2 Method

The research was conducted in Surakarta regional hospital from September to December 2018. We conducted qualitative studies with a phenomenology approach that focused on the subjective experiences of individuals experiencing phenomena. The method was used to achieve the research's goal of identifying family barriers in treating heart failure patients.

We select informants based on established sample criteria, such as the core family of heart failure sufferers who are at least 18 years old, have provided treatment for at least six months, and live with the patient. Data collected by BK and MS with face-to-face in-depth interviews with a duration of 45-60 minutes. Interviews are conducted in hospital parks or other places desired by informants. Researchers also read the patient's medical records to confirm the patient's history of illness and treatment. The non-verbal responses interpreted by the researchers were recorded in field notes. We offer informants for interviews in Javanese or Bahasa Indonesia. We probing to explore important information submitted by informants, and interview guides are used to cover the topics explored: (a) the meaning of caring for family members of heart failure, (b) family members' views on heart failure patients, (c) form of support in the patient care process, (d) the role of the family in patient care, and (e) difficulties experienced by families in patient care.

Furthermore, for data processing and analysis, all recordings of the interview were made verbatim transcripts. Field notes were added when writing verbatim transcripts. Seven-step Collaizi data analysis was conducted to obtain an overview of family barriers in providing care for heart failure patients. We perform data analysis manually to register the analysis unit, code, category of verbatim transcripts. BK and MS conducted coding independently. The consensus is obtained after the results were discussed with SR and TH.

Researchers also triangulated information from other family members, nurses, and medical records. Besides, bracketing is done from the beginning of data collection during data analysis. Peer debriefing with all authors was conducted to discuss the code, categories, and themes generated from the data.

3 Results and Discussion

3.1 Result
The proportion of most female participants was about 57% by the age of 23, as much as 43%. The highest education level in high school with experience caring for family members is the highest proportion of 2 years as much as 30%.

Our analysis found six categories of family barriers treating heart failure patient: (a) limited family knowledge, (b) support given to patients, (c) treatment given when symptoms appear, (d) psychological management, (e) changes in the patient role during illness, and (f) impact of the patient disease on family psychology. Table 1 describes the codes formed from categories.

Table 1. Examples of coding process

<table>
<thead>
<tr>
<th>Meaning unit</th>
<th>Code</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;...complained chest pain and shortness of breath. At that time, I thought stomach acid increased, and it turned out that after checking to the doctor there was swelling of the heart&quot; (P7)</td>
<td>Families do not know the signs and symptoms of heart disease</td>
<td>Limited family knowledge</td>
</tr>
<tr>
<td>&quot;I do not expect much with the condition of my father who is often hospitalized...&quot; (P19)</td>
<td>Despair at the patient's condition</td>
<td>Impact of the patient disease on family psychology</td>
</tr>
<tr>
<td>&quot;When my mother can't sleep because of shortness of breath .... yes, I massage his feet, her back or compressed using warm water..... after that usually she sleeps&quot; (P4)</td>
<td>Nonpharmacological therapy is given to families</td>
<td>Treatment given when symptoms appear</td>
</tr>
<tr>
<td>&quot;Since Mom was sick, yes, I took care of her at home.... helped all the needs of her and made sure the medicine was always consumed&quot; (P9)</td>
<td>Family brings to health care Trust in the health service Dietary restrictions Set of menu encouraging</td>
<td>Support given to patients</td>
</tr>
<tr>
<td>&quot;It's acceptable that his current condition... we are sure that everything is god's. The important thing is not to give up&quot; (P11)</td>
<td>Emotion management Surrender to God Patient</td>
<td>Psychological management</td>
</tr>
<tr>
<td>&quot;Since my husband is sick, the cost of living for the children must be my responsibility, I also can't work because I have to take care of him&quot; (3)</td>
<td>No one makes maintenance No one takes care of the husband.</td>
<td>Changes in the patient role during illness</td>
</tr>
</tbody>
</table>

3.1.1 Lack of knowledge to be a family inhibition factor in treating heart failure patients

The participants' lack of knowledge was the lack of information about the health problems faced by their family members and the actions that must be taken when symptoms of the disease arise. This less of the source of knowledge from the low-income family desire to know the disease exist condition family members. Participants did not know the signs and symptoms that the patient showed were signs and symptoms of heart disease. Participants' signs and symptoms are commonly encountered by participants: shortness of breath, nausea, and swollen feet. The participants' expressions as follows:

"...When you are short of breath, I recommend take a rest ...., because I do not know if he has heart failure and should be done" (P12)

3.1.2 Nonpharmacological therapy is given to families to address heart failure complaints
The family's nonpharmacological therapy to address heart failure complaints meant that participants took measures to address the symptoms of heart disease that arose in their family members by not giving drugs containing chemicals. Participants performed nonpharmacological actions in the form of giving massages. Here's a participant's expression:

"...... If the breath is heavy, ask for rest and massaged his back to make it more comfortable. Or I recommend regulating breath" (P1)

3.1.3 Instrumental and emotional support provided by families in treating heart failure patients

The participants interpreted the participants' instrumental support by assisting the sick family by taking medication, arranging the intake of food at home, and helping to meet daily needs activities. When feeling unbearable pain, the family took the patient to the health service. Emotional support is interpreted as emotional support given to calm the mind so that family members who suffer from heart failure have the spirit to deal with the disease. The participants' nonverbal response when conveying information related to emotional support provided was unequivocal and told in a loud voice. Here's an excerpt of the participant's expression:

"Fatty foods such as meat containing cholesterol, should not be his consumed.... I arrange and plan his diet" (P1)

"Pain is a test of God, so must accept and patiently face the reality that is happening today" (P6)

3.1.4 Attitudes to surrender to God being a family force in treating heart failure patients

The surrender meant that his pain is a test from God, and the family gave all circumstances to God by praying. Participants are positive-minded and convince themselves and patients that all diseases have a cure so that their current obligation is to give thanks and submit to God. Participants occasionally subdued the view and looked at the patient when disclosing some of the following quotes:

"It's acceptable that his current condition... we are sure that everything is god's. The important thing is not to give up" (P11)

3.1.5 Changes in the patient's health condition leading to a change in the role of heart failure patients in the family

The change of role means a change in the position and duties of an individual in the family. The participants' role change was the role of a wife or mother to take care of her husband and child changed due to illness. Here's an excerpt from the participant's expression:

"... my wife is sick so the work she used to do now I have to finish it" (P12)

3.2 Discussion

The level of family knowledge can affect his ability to care for family members suffering from heart failure. According to [9] education level affects the level of health knowledge.
According to [10] the physical and psychological management of heart failure sufferers who experience fatigue can be by giving a back massage. Back massage can relax the muscles of the back area. Statistical test results showed a decrease in fatigue scores shortly after back massage intervention. The massage was done by participants when the patient experienced discomfort and difficulty sleeping.

According to chronic [11] conditions require lengthy and costly treatment procedures. Heart failure disease suffered by this patient requires instrumental support from the family to overcome physical limitations. The support provided by the family can be used as a useful intervention to improve the behavior of self-care of heart failure patients[12]. [13] demonstrates the presence of a lifestyle towards the pulse of Heart Failure Patients, and lifestyle settings can be successful with the support of health professionals and the positive behavior of patients and the patient's family support.

The patient's family builds confidence by handing over his sick family to God, looking positively, and always praying. Explain that human relationship with God can be done one them by praying. Praying is a participant's strength in interpreting the meaning of pain suffered from heart failure patients. There is a clear link between spiritual well-being and individuals' or families' increased ability to cope with stress and illness [4].

[14] stated that the family's support family provides stimulus to the family's mind that the family cares about his condition and hopes to recover quickly. Research by [15] obtained the results that caregivers' support is essential to healing sufferers both in terms of physical, psychosocial, and spiritual. Family support needs to be given to people with heart failure, as sufferers worry it will be a burden on their families [15]. Participants have varied occupations. The work required participants to be able to divide time between working and treating heart failure patients. The family's function in the economy is to meet the needs of the family economically and a place to develop individual abilities as an effort to increase income [4].

4 Conclusion

It can be concluded that the theme of instrumental support provided by families in treating heart failure patients and the emotional support provided by families in treating heart failure patients accommodates the meaning of family care in heart failure patients. The theme of changing patient health conditions led to a change in the role of heart failure patients in the family—accommodating the purpose of the investigation to know the family's view of the situation of heart failure patients. The theme of nonpharmacological therapy given families to address heart failure patients' complaints accommodates the purpose of research to find out the perception of families treating heart failure patients. The theme of a lack of knowledge is a factor inhibiting families in treating heart failure patients. It accommodates the study's purpose to determine the family's perception of weaknesses in treating heart failure patients. And the family's hope in treating heart failure patients is accommodated by the theme of surrender to God being the family's strength in treating heart failure patients.

Acknowledgement

Thank you to the team in this research who have cooperated in this study. Muhammadiyah University has facilitated the publication of research results, especially at the department, to
develop scientific publications. The informant has also been willing to share his experience caring for their heart failure sufferer family members.

References

Abstract. This study aims to explore the students' perceptions about internship program
Held by Faculty of Education (FIP), Muhammadiyah University of North Maluku (UMMU). The study employs a mixed method of quantitative and qualitative approach.
The research subjects were 40 students of English Education Department and Primary School Teacher Department (PGSD), FIP-UMMU. Data was collected through five-point likert scale and in-depth interviews. Findings showed that most students achieve the experiences and benefits during the internship program such as reflecting critically on teaching methodology in actual setting, developing a school curriculum, and adjusting to school environment, school teachers, and the local community. It also gives them the opportunity to integrate theory with practice, design teaching aids and material then implement the lesson properly, and improve the classroom management. Problems faced by students during the internship are several junior and high school students have bad attitudes that make student-teachers are difficult to manage the class. Very few students-teachers also have less preparation before class, therefore they cannot deliver the lessons in a proper way. Therefore, the committee of the program should work out a mechanism of obtaining feedback from school’s instructor and college supervisor about students’ attitude which should form part of the students’ appraisal process.

Keywords: Students; Perception; Internship

1 Introduction

Nowadays, the world of education needs creative, qualified and professional teacher candidates. To achieve this goal, prospective teachers are required to have knowledge and skills in teaching by accomplishing their study at the university in Teaching Preparation Program in joining teaching practice at school.

Steffy, Wolfe, Pasch, and Enz [1] assert that undergraduate education for aspiring teachers can be perceived “as one end of a continuum that spans the entire career of a teacher”. The preparation teachers receive while in college begins their professional journeys and determines what standard of excellence they will pursue throughout their careers.

During the internship program, student-teachers have a standard level of competence as required by the real work environment, Daryanto [2] because they will always be observed, cared for, heard, and imitated and even assessed by instructors and supervisors regarding their appearance in class, personality, ability to master learning material, teaching skills, attention to students, the relationship between students and teacher, attitudes, and behavior both in class and in school environment.
The researchers are two of students’ field supervisors and one of the university students who has experienced in internship programs in two months at SMP Negeri 1 Makian held by Faculty of Education (FIP), Muhammadiyah University of North Maluku (UMMU). Based on the observation during the program on July to September 2019, it can be stated that the internship program is quite successful in providing experience and benefits for students, even though there are few problems faced by participants during the program.

Otara [3] expressed that the advantages that students acquire from this internship program is that it actually obtains training as professional teacher candidates by directly practicing teaching in the settings, but also as professionals learning their own teaching practice, taking part in site-based decision making, and coordinating their work with teachers and other members of the school community. This practice guides the students to develop the confidence to work with learners in real situations during their school practice stated by Kagoda & Sentong [4]. The experiences also gained by students that allow them to be immersed in the classroom setting and become better acquainted with all aspects of a school and of teaching. Thus, internship program that utilize by each institution [including FIP-UMMU] requires students to have the school experiences more effectively and prepare future teachers than do traditional campus-based programs as was confirmed by Steffy, et. Al [1].

In contrast, the most problems face by researcher and other participants are coming from students themselves such as managing the class and mastering the materials. Another one is coming from the school environment that there are not sufficient interesting teaching media. Therefore, the school instructor should control and advice to the participant regularly during their practice in class or out class. In addition, the school instructor and college supervisor require to change students’ perception and have positive view of the practice. It is then they would be able to achieve more knowledge from the programme and eventually perform optimally in their pedagogical skills on the actual setting, Olugbena [5].

Thus, the study seeks to achieve aforementioned purposes and the issues to be discussed in this paper will be summarized in the following research questions: what are the students perceptions on internship program held by the committee in Faculty of Education, Universitas Muhammadiyah Maluku Utara”. It hopes that the better findings can solve the problems for the future internship program.

2 Method

This is a qualitative study backed up by simple quantitative statistics focusing on the perception of 20 English Education Department students and 20 Primary School Teacher Departments (PGSD), FIP-UMMU toward their internship experiences. They were selected using stratified that was used to select sample according to students’ level, programme and gender. The study adopted the concurrent triangulation design which allowed the researcher to collect both quantitative and qualitative data concurrently and to compare the data to figure out if there is convergence, differences, or some combination as argued by Creswell [6].

Data was collected from 40 active students above the seventh semester who have been taking three internship program courses, namely Magang I, Magang II, and Magang III at junior and high schools in Ternate and Pulau Makian through five-point likert scale and in-depth interviews. These both tools were properly tested in order to confirm their validity and reliability. The data collected through questionnaire consists of 10 closed-ended questions was analyzed by using descriptive statistical procedure of percentages. Meanwhile, the interview
3 Results and Discussion

3.1 Result

There are very diverse perceptions of students, but researchers summarize the perceptions of these students into two categories base on the research question, namely: positive and negative attitudes during internship program.

3.1.1 Positive Attitudes during the Internship Program

Basically, there is no student complain about the three times internship program (Magang I, II, and III) held by FIP-UMMU. However, there are some positive statements conveyed by respondents based on their opinions, which are the increase of teaching skill in actual setting, the improvement of developing a school curriculum, and the adjustment to school environment, school teachers, and the local community.

Respondent 1 said that internships can improve the ability of each student to organize classes. “Internship program at junior and high schools held by FIP-UMMU can improve the ability of every student who participates in the internship such as manage the class or face the students that come from various cultural background.” He also added that by joining the internship program students got many benefits. “After joining the internship program, my opinion is “Alhamdulillah”, I got a lot of benefits such as designed and implemented lesson in a real classroom and developed the teaching materials.

Meanwhile respondent 2 said that participating the internship program can examine students' mentality in real situation. “This internship program is beneficial for students because students can examine their mental skills in delivering the lessons”.

Respondent 2 also added that the internship program is a useful activity because students can teach by adjusting the classroom and school atmosphere. “This activity is advantageous because the participants can teach by adapting the classroom and school atmosphere, where they have in their mind that this is a real job of teachers. They should deliver the lessons in any kind of situation.

In contrast to respondent respondents 1 and 2, respondent 3 said that the impression during the internship was that he could manage the class and understand and develop the educational curriculum. “The impression of being able to manage the class and being able to understand the curriculum.”

She also added that he gained benefits, experience, and teaching practice includes the suggestion of critical thinking from school instructor and university supervisor during the internship. “I Get a lot of benefits, experience and teaching practice during the internship program, such as it gives me opportunity to integrate theory and practice, plan and deliver lessons properly, and critically analyzed my own teaching styles in the light of feedback given by school instructor and university supervisor.

In addition to the impressions of other respondents, respondent 4 said that during the internship program, he was familiar with the classroom atmosphere and the school environment.
"I Can get to know the classroom atmosphere, the school environment, and delivering material with the high responsibility."

### 3.1.2 Negative Attitudes during the Internship Program

Negative perception means that the obstacles faced by participants during the internship program.

“The obstacles conveyed by students is from the school environments and from students themselves, such as: (1) students are naughty (2) students do not have the preparation before class. Respondent 5 said that the real obstacles were students, students who were wayward. “The real obstacle lies is in the wayward students.”

In addition to respondent 5, respondent 6 said that the obstacles in participating in the internship program was not having the preparation before class. “Obstacle during the internship is without preparation before class. Therefore, I do not have any encouragement to stand in front of students to deliver the materials.”

### 3.1.3 Questionnaire Analysis

In the questionnaire, 10 statements about internship were divided into two categories, namely 5 positive statements of student perceptions and 5 negative statements of student perceptions. The Respondents’ Answer on the Statements show in Table 1.

<table>
<thead>
<tr>
<th>Table 1. The Respondents’ Answer on the Statements</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Positive Questions</th>
<th>Fully Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Highly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. integrate theory with practice</td>
<td>50%</td>
<td>40%</td>
<td>5%</td>
<td>5%</td>
<td>0%</td>
</tr>
<tr>
<td>2. reflect critically on teaching style and practice</td>
<td>40%</td>
<td>25%</td>
<td>25%</td>
<td>0%</td>
<td>10%</td>
</tr>
<tr>
<td>3. refine and improve teaching methodology and techniques</td>
<td>50%</td>
<td>40%</td>
<td>10%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>4. design and implement the lessons</td>
<td>65%</td>
<td>20%</td>
<td>15%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>5. design teaching aids and material</td>
<td>45%</td>
<td>40%</td>
<td>10%</td>
<td>5%</td>
<td>0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Negative Questions</th>
<th>Fully Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Highly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. not gain any experience while joining the internship program</td>
<td>10%</td>
<td>0%</td>
<td>20%</td>
<td>25%</td>
<td>45%</td>
</tr>
<tr>
<td>2. not achieve any benefits during the internship program</td>
<td>10%</td>
<td>15%</td>
<td>0%</td>
<td>20%</td>
<td>55%</td>
</tr>
<tr>
<td>3. not add insight and knowledge, especially about the educational curriculum</td>
<td>5%</td>
<td>0%</td>
<td>20%</td>
<td>25%</td>
<td>50%</td>
</tr>
<tr>
<td>4. not improve skills in class management</td>
<td>5%</td>
<td>5%</td>
<td>25%</td>
<td>20%</td>
<td>45%</td>
</tr>
<tr>
<td>5. not like the internship regulation stated by the internship committee</td>
<td>10%</td>
<td>5%</td>
<td>5%</td>
<td>15%</td>
<td>65%</td>
</tr>
</tbody>
</table>

Table 1 shows that most English Education Department students (SA = 50%, Agree = 40%) in the study agreed that internship program integrate theory with practice. Teacher-students (SA = 40%, Agree = 25%) also believed that this program was effective and beneficial because it
provided an opportunity for them to plan, deliver lessons, and gave opportunity to reflect critically the different teaching styles and practice, but 10% disagreed with this statement. However, participants (SA = 50%, Agree = 40%) reported that through this program their teaching styles, methodologies and techniques were refined and improved. Moreover, students (SA = 65%, Agree = 20%) stated that internship program enhanced their ability in designing and implementing the lessons to junior and high school students. In the last positive statement, the majority of the respondents strongly agree (45%) and agreed (40%) that by joining the internship program held by FIP-UMMU, it improved their ability to design and use teaching aids and materials in a more effective and better way.

Then, the majority of English Education Department students (HD = 45% and D = 25%) in this study disagreed that internship program does not provide any experience while joining the internship program. It means that English department students gain a lot of experiences when they participate in the internship program. 55% HD and 20% D of teacher-students also opined that they do not achieve any benefits during the internship program. It means internship program gave them experiences in teaching practice and real classroom environment. In addition, a half (HD) and a quarter (D) of participants disagreed that through internship program, they can not add insight and knowledge, especially about the school curriculum, but 5% agreed with this statement. It means that this internship program can enhance students to learn in adding insight and knowledge of ways to be good teachers. Participants (HD = 45%, D = 20%) disagreed that they cannot improve skills in classroom management during the program. It means that by joining the internship program held by FP-UMMU, their ability of classroom management was enhanced. The last negative statements, student-teachers (HD = 65%, D = 15%) disagreed that they do not like the internship regulation stated by the internship committee. It means that English Education department students really enjoy the regulation stated by the internship committee.

3.2 Discussion

There are two statements perceived by English department students from this data; (1) Positive attitudes during the internship and (2) negative attitudes during the internship.

3.2.1 Positive attitudes from data interview and questionnaire

There are many positive statements were obtained individually by students after participating in the internship program. Namely, the increase of teaching skill in classroom setting, the improvement in developing an educational curriculum, and the adjustment to school environment, school teachers and the local community.

This internship program is a successful way to provide effective practice to the students about real place of work for those who tend to be teachers after graduating from undergraduate degree, Parveen [7]. It provides an opportunity to integrate theory and practice in teaching. Otara [3] found that this training program assists student to organize and deliver lessons in appropriate way, critically analyze their own and peers teaching styles and improvement. Encouraging internship program is therefore critical to improve the strategy of pedagogic, which will promote student learning and in improving the quality of education.

3.2.2 Negative attitudes from data interview and questionnaire
Negative statements from student perceptions in the form of obstacles that were obtained when participating in the internship program were; some students who were from various cultural background that have bad character during the lessons. In addition, prospective teachers also have no preparation in implementing the materials. Even though the majority of students have the positive attitudes during the internship, there are 10 per cent of students strongly agree that they cannot gain experience while joining the internship program, they cannot achieve any benefits during the internship program, they do not like the internship regulation stated by the internship committee.

4 Conclusion

The findings of the study indicate that student-teachers have a positive and negative perception during the internship program. Most students achieve a lot of experiences and benefits such as reflecting critically on teaching methodology in actual setting, developing a school curriculum, and adjusting to school environment, school teachers, and the local community. In addition, it gives them the opportunity to integrate theory with practice, design teaching aids and material then implement the lesson properly, and improve the classroom management. Through the internship program, student-teachers increase their professional knowledge that they can be an English teacher in the future because it provides the access for student to be effective teachers. In contrast, very few junior and high school students have bad character that make students-teachers are difficult to manage the class. Some students also have less preparation before class; therefore, they cannot deliver the lessons properly. Therefore, the committee of the program should work out a mechanism of obtaining feedback from school’s instructor and college supervisor about students’ attitude which should form part of the students’ appraisal process. For further researchers who are interested in studying the activities of the internship program, it is hoped that they can develop the research that has been done using good research indicators in the implementation of internship program activities in different research or broader research variables.

Acknowledgement

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References


Pattern of Religious Education with Inclusive Paradigm: Implications in the Construction and Practice of Learning in Senior High School

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Abstract. This article describes and explores the pattern of inclusive religious education which focuses on implications in curriculum construction and learning praxis in high schools under the auspices of Islamic organizations in Purwokerto. The research data were obtained from observation, interview and documentation. The results showed that the construction of the Religious Education curriculum at SMA Diponegoro Purwokerto which was under the auspices of the Nahdlatul Ulama refers to the substance of religious teachings based on the holy book, as sunnah, ijma, qiyas, with a strong religious tradition and refers to the curriculum of the ministry of education by opening it wide variants of the opinions of scholars in their studies, so that they are more open to differences. Whereas at SMA Muhammadiyah 1 Purwokerto is more based on the basis of the text of the Koran and hadiths strictly with the curriculum construct oriented to the decision of the Muhammadiyah Tarjih Council, so that the practice of teaching also refers to the view of the organization. Meanwhile, at SMA IT Al Irsyad Al Islamiyyah Purwokerto it is based on efforts to pay attention to the middle ground in the basic context of the scriptures and religious traditions. The curriculum construct tends to converge between NU and Muhammadiyah, so that in practical learning it tends to open dialogues with various religious discourses.

Keywords: Religious Education, Inclusive Paradigm, Curriculum, Learning Praxis

1 Introduction

Lately there have been many "amok" phenomena that have troubled various religious groups. The Setara Institute notes that there are various cases related to SARA every year, including in 2010 there were 216 attacks on religious minorities, in 2011 there were 244 cases, in 2012 there were 264 cases, in 2013 there were 222 cases and 2014 there were 134 cases. [1] Another example, the case of expulsion of the Shia Sampang community in 2012 and the Muslim community in Tolikara in 2015, [2] and cases of violence against the Ahmadiyah community in 2018 [3]. This departs from differences in understanding, blind fanaticism, hatred, the stigma of being deceived, exacerbated by discrimination which ultimately leads to acts of anarchism.

Now intolerance has also entered the joints of education. Lembaga Kajian Islam dan Perdamaian (LaKIP), published in 2011, with respondents from junior high and high school students in Jabodetabek, noted that 50% of students supported violent methods in dealing with religious and morality conflicts. It is further strengthened by data on the level of intolerance and
radicalism which can be seen from the willingness to take action such as the destruction of problematic places of worship (24.5% teachers, 41.1% students), destruction of houses or facilities for religious members who are considered heretical (22.7% teachers, students 51.3%), defending with weapons against Muslims from threats of other religions (teachers 32.4%, 43.3%), and the destruction of nightclubs (teachers 28.1%, students 58.0%).

Based on the survey above, it indicates that religious education has not been able to achieve optimal learning objectives. Currently, religious learning tends to be textual and normative, and stops at the cognitive aspects. Religious learning does not touch on sociological or fulfillment aspects in order to form a strong personality and arrive at awareness related to optimal life welfare.

In this case, religious teachers in their learning praxis have not touched the affective and psychomotor aspects of students [7]. The learning material does not include inclusive Islamic religious material which is relevant to Indonesia's pluralistic conditions. Whereas education is one of the effective media to shape students' views, that diversity is a necessity that must be appreciated constructively [8].

Zuly Qodir in his book "Gerakan Sosial Islam: Manifesto Kaum Beriman" states that religious education at the senior secondary level has a big problem because it tends to lead to ideological and religious reinforcement so that it often produces sectarian graduates. [9]

Inclusive Islam in this case seeks to offer Islam as a religion that is Rahmatal lyla lam. This inclusive paradigm is expected to be able to answer global issues such as pluralism, humanism, gender and so on. [10] Inclusive paradigm of religious education is education that is more inculcated in awareness of an open attitude and avoids egocentric attitudes. The value of inclusive values is implied in educational praxis to bring up a dialogical learning, not doctrinal-normative. This is quite important because the educational pattern applied by schools will affect students' religious understanding.

Therefore, in this study will be studied about religious education with an inclusive paradigm and its implications for curriculum construction and learning praxis in high schools under Islamic organizations in Purwokerto, including SMA Diponegoro Purwokerto, SMA Muhammadiyah 1 Purwokerto and SMA Irsyad Al Islamiyyah Purwokerto. The three schools represent quite a large variety of Islamic organizations in Indonesia.

2 Method

This study is a field research with a qualitative approach. [12] so that the whole process of excavation, presentation and analysis of data using qualitative descriptive approach and using constructivist perspective, the researchers understand the meaning and interpretation of indigenous communities in various contexts [13]. In the process of extracting data, the researcher enters naturally and tries to find the key informant, then search is carried out snowball.

The subjects in this study include: school principals, curriculum staff, religious teachers, and students. The research data were obtained through interview techniques, observation and document review. The interview guide is used in the form of an outline of the research theme to elaborate on the values, meanings and views of the informants [14].

In observation, all phenomena related to the context and focus of the research were recorded and documented so that data related to inclusive education paradigms were found and their implications for curriculum construction and learning praxis. The documentation method is used
to support data mining. Data analysis techniques used in this research is the engineering model of Miles and Huberman [15], is the stage of data reduction, display data and verification or conclusions.

3 Results and Discussion

3.1 Inclusive Paradigmatic Religious Education Patterns in Senior High Schools Under the Shade of Islamic Organizations in Purwokerto

Humanizing is one of the main missions in life. In the humanization process, it cannot be separated from critical awareness that has become human's natural potential. This gives humans the possibility to understand the reality of the world and create unique cultural structures. Humans exist not only within themselves, but their existence fills space and time in the dynamic reality of life [16]. Therefore education must be relevant to the reality that surrounds it.

In the context of religion, there are people in Indonesia who adhere to Islam, Christianity, Hinduism, Buddhism, Catholicism, Confucianism and belief in God Almighty. Pluralism must be understood as a necessity that must be treated properly, so that it has positive implications for life. If it is rejected and not treated properly, it will cause disintegration of the nation.

This is proven by the fact that in the field there are still many cases of conflict in the name of religion. The world of education is also inseparable from the target of doctrinal understanding of religious fundamentalism. This understanding tends to absolutism, textualism, extremism, and prioritizes religious symbols which often lead to anarchism [17]. This indicates that the religious education that is implemented has only touched the skin, it has not reached the appreciation of religion itself. In this case the teacher has a considerable influence on students' religious understanding. Therefore, religious education with an inclusive paradigm is an effort to respond to these problems.

This inclusive paradigm education is in accordance with the view of the Koran on inclusive attitudes in religion, namely in Qs al-Baqarah (02): 62, which means: "Truly believers, Jews, Christians and people Shabiin people, whoever among them truly believes in Allah, the next day and do good deeds, they will receive a reward from God, have no worries for them, and neither will they be sad."[18]

Referring to the verse, an inclusive attitude needs to be cultivated in a pluralistic society in order to create a harmonious life. As according to Nurcholis Madjid that pluralism is in line on the theological basis, namely: pluralism is sunnatullah, recognition of rights the existence of other religions, sentences sawa (common platform), and there is no compulsion in religion [19]. It is also relevant to help develop education in accordance with the national strategy based on the nation’s philosophy of "Bhineka Tunggal Ika". The other normative basis is in Qs. Al-Maidah: 48, Qs. Al-Nisa: 125, Qs. Yunus: 19, Qs. Al-Baqarah: 62, 112, 213, 256, Qs. Al-Kafirun: 6, and Qs. Al-Nahl: 36.

The recognition of universal truth which is the meeting point of religions is expected to be able to encourage the appreciation of human values recommended by religion, namely a global universal value. Religious kindness is seen from the seriousness of a person to believe in God and the willingness to do good to others. In the context of plural community life, religious patterns that emphasize a humanitarian orientation need to be appreciated and emphasized [20].

Islamic religious education has a strategic significance and contribution in efforts to cultivate awareness of plurality, truth, and multiculturalism in the current era. Religious education which
tends to be reactive, apologetic and not affirmative towards religious communities will actually boomerang for the adherents of the concerned religion. So, it is important to note that the function of Islamic educational institutions can position itself in the middle of a plurality of values and spiritual norms of society [21].

In Purwokerto, there are several educational institutions under the auspices of Islamic organizations, such as: SMA Diponegoro Purwokerto which is under the auspices of the Purwokerto Central Al Hidayah Foundation which is affiliated with Nahdlatul Ulama, [22] SMA Muhammadiyah 1 Purwokerto which is affiliated with Muhammadiyah [23] and SMA (IT) Al Irsyad Al Islamiyyah Purwokerto which is under the auspices of the Al Irsyad Al Islamiyyah Islamic Organization.

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As for the pattern of Islamic religious education in each of these schools tends to follow the mission of the organization that oversees it. Although in the context of the curriculum it also refers to the Ministry of Religion which is then complemented with the hidden curriculum.

SMA Diponegoro Purwokerto, which is affiliated with Nahdlatul Ulama, understands plurality as a reality to be grateful for and care for as part of a dynamic life. The pattern of religious education with an inclusive paradigm disseminated to students at SMA Diponegoro Purwokerto is an education pattern that holds four main elements, namely tasamuh, tawassuth, tawazun and itidal.

NU positions itself as an organization that tends to be moderate, taking a position in the middle. NU is referred to as the traditionalist circles, where they practice Islam with traditional and accommodating characteristics. Islam is interpreted not as a mere symbol, but Islam is interpreted substantially, as social ethics. As according to Gus Dur, Islam is not something static, the social ethics of Islam are not something that is onetime, so it requires reformulation or reapplication. This means that the development of basic Islamic law must always be translated contextually. Seeing this, the understanding of the religious phenomenon is an understanding that dialogue between an absolute universal and relatively particular by constantly contextualizing the social of religious communities.

In this case, SMA Muhammadiyah Purwokerto sees that an inclusive approach in learning Islam is used to provide awareness and deep appreciation of plural social realities. Essentially and perennial the institutional model, system, character and culture of education at SMA Muhammadiyah Purwokerto cannot be separated from the roots of Muhammadiyah ideology which serve as a normative basis and historical experience as an empirical basis.

Muhammadiyah makes education as a part of the Islamic movement and da'wah amar ma'rifah nahi munkar with the aim of upholding and upholding Islamic teachings towards a truly Islamic society. The ideology of Muhammadiyah is based on the Qur'an and Hadith which are formally compiled in the Preamble to the Articles of Association, Islamic Life Guidelines (PHI), Muhammadiyah Personality, Khitah Perjuangan, Matan Beliefs in Muhammadiyah's Ideals of Life (MKCH), and other supporting guidelines. ideological values [25]. Muhammadiyah does not close the way to ijtihad, and for that there is the Tarjih Council.

In the context of education, Muhammadiyah organizes inclusive education education for all for students. This is evident from the interview data and documentation obtained from SMA Muhammadiyah Purwokerto that almost 75% of the students who study at the school do not have Muhammadiyah Islamic religious background. So, education with an inclusive paradigm is very necessary to be applied in schools to provide students with a view of life that the world is so dynamic. However, it also needs to be addressed, that there are Muhammadiyah circles who are also considered difficult to accept differences in their development.

Islamic social organizations that are concerned about empowering Human Resources through education are also carried out by Al Irsyad Al Islamiyyah. This organization makes a
big contribution to the development of education, because every branch establishment in a certain area is accompanied by the establishment of a school.

Since its establishment, Al-Irsyad Al-Islamiyyah has aimed to purify tawhid, worship and practice of Islam and is engaged in education and da'wah based on the Qur'an and Sunnah in order to realize the Muslim person and the Islamic community towards the pleasure of Allah [26]. Therefore, Al-Irsyad has established hundreds of formal schools and non-formal educational institutions throughout Indonesia, including in Purwokerto where there are Al Irsyad educational institutions from early childhood to high school level. At SMA IT Al Irsyad Al Islamiyyah Purwokerto itself, has a vision of becoming an exemplary Islamic school with high achievements and a global perspective [27]. The school is part of the means to achieve the vision and mission of Al Irsyad Al Islamiyyah which is described in the essence and mabadi of ‘Al-Irsyad. The essence of Al-Irsyad is an Islamic association that aims to purify Islamic monotheism, worship and amaliyah.

Based on an interview with the Religion teacher at SMA IT Al Irsyad Al Islamiyyah Purwokerto, related to the inclusive paradigm of religious education in the school, it also emphasizes the morals of students to respect each other, and not hurt each other. In addition, students who study at the school also come from a variety of backgrounds in the Islamic organization. Therefore, an attitude of inclusiveness and mutual respect for one another is an important thing. Regarding religious learning in schools, related to the internalization of values, it does take from the rules set by Al Irsyad Al Islamiyyah. So that the rules in Al Irsyad are included in learning.

Of the three schools that have different Islamic organizational affiliations, namely NU, Muhammadiyah and Al Irsyad Al Islamiyyah, the view is that this inclusive paradigm of Islamic education is essential, because life is inseparable from the pluralistic realities of life. However, in terms of taking law and jurisprudence, which are also internalized in education, it does have differences that are not impossible to influence students' views of pluralism itself and also its religious characteristics, both extreme right (exclusive-radical), extreme left (liberal) or taking the path middle (moderate).

### 3.2 Implications of Inclusive Paradigm Religious Education in Curriculum Construction and Learning Praxis

Religious education with an inclusive paradigm encourages each individual to accept differences and be ready to build a civilization that is peaceful and comfortable to live in together. Religious education here has a strategic position and role as a medium for value dissemination and how to understand Islam itself. With various Islamic institutions emerging as the biological children of an Islamic social organization, this has implications for the construction of curricula and learning designed to achieve the goals of the Islamic organizations that support them. So that it gives rise to a distinctive style between Islamic educational institutions with one another.

Islamic Religious Education (PAI) at the high school level is a compulsory subject for all Muslim students. However, PAI in SMA which is under the auspices of Islamic community organizations both at SMA Muhammadiyah Purwokerto and SMA IT Al Irsyad Al Islamiyyah Purwokerto in the construction of the curriculum is divided into seven clumps as in the concept of segmentation of PAI in madrasah. Among them are aqidah, morality, fiqh, al-Qur'an-hadiths and Islamic Cultural History. Meanwhile, in SMA Diponegoro Purwokerto, it becomes a unity in the PAI subject.
Based on the concept of thinking in an inclusive Islamic paradigm, the main source of open understanding of religion is its theology (aqidah). Therefore, if we draw this concept to analyze the Islamic Religious Education (PAI) curriculum, then we can see it through a subject-academic approach which is based on the systematization of each discipline, as in the PAI family mentioned above [28]. In addition, it can also use the additive approach, the contributions approach, and the transformation approach [29].

If SMA Diponegoro Purwokerto even refers to the Ministry of Education and Culture's curriculum in its curriculum construction it uses the additive approach, which is adding the principles of Ahlussunah Waljamaah. It can be seen that there is a segmentation of student material allocated to local content. In the faith, NU follows the thoughts developed by Abu Hasan al-Asy'ari and Abu Mansur al-Maturidi. The basics are based on the Qur'an and Hadith, Ijma, and Qiyas. The amaliyah is integrated with cultural traditions and localities, such as getting used to tahfil, pilgrimage, reading maulid, Friday prayer services that blend with the community and so on. So that the moderate values have been internalized to students.

As for the practice of learning in the classroom, the teachers convey about the law of jurisprudence with various views of the schools. So that it will open students' thinking horizons and not get trapped in a monopolistic understanding. In the study of fiqh, it is also added to the siyasah fiqh which contains the concepts of nationality which have been exemplified at the time of the Prophet, friends or caliphs afterwards and then linking it to the multicultural state of Indonesia. So that it can counterbalance the discourse of the Caliphate State and religious radicalism. It is strengthened by giving examples and amtsal and arguments contained in the Koran and Hadith regarding the command to call for goodness.

The PAI curriculum at SMA Muhammadiyah Purwokerto is an integration between the curriculum from the Ministry of Education and Culture and the Ministry of Religion Curriculum. So that PAI is broken down into subjects such as Al-Qur'an-Hadith, Jurisprudence, Date, and Aqidah-akhlak. Associated with the inclusivism view, internalized in the lessons of date and aqidah-morals. The subject of dating by examining Islam historically will imply openness and give an understanding of Islam rahmatan lil'alamiin.

In the subject of Aqidah-akhlak, material about the relationship between humans and God, humans and humans and Muslims and Muslims is presented. In this case the teacher emphasizes that in religion one must stick to the Qur'an and the Sunnah, but the religious attitude when dealing with people who have different religions must be able to respect and respect.

Apart from that, Muhammadiyah consistently promotes the preaching of amar ma'ruf nahi munkar. The Jurisprudence subject at SMA Muhammadiyah Purwokerto has also undergone an adjustment to the decision of the Tarjih Council, which is an institution that is authorized to carry out the ijtihad tradition and conduct studies of all Muhammadiyah acts of worship in accordance with the Qur'an and Hadith. However, in this case, students who study at SMA Muhammadiyah do not only come from Muhammadiyah, but also many students from the NU circle, therefore in their learning praxis the teacher also gives the view that there are differences of opinion. The hidden curriculum is implemented in the daily habits of students.

At SMA IT Al Irsyad Al Islamiyyah, the curriculum used is complementary between the Ministry of Education and Culture, Ministry of Religion and the local curriculum, adjusting Mabadi 'Al Irsyad. PAI subjects at the school are divided into Aqidah, Hadith / Morals, Fiqh, Date and the Qur'an. The values taken from Mabadi 'Al Irsyad are internationalized in every subject. For example, the value of tasamuh. This is considered important because the school also accommodates students from various backgrounds of religious organizations.

Teachers at Al Irsyad claimed that Al Irsyad was very moderate, because in his practice part of it used the NU tradition and part of the Muhammadiyah tradition. For example, the
Maulid Celebration held by NU circles, Al Irsyad also celebrated. The tarawih prayer of Al Irsyad uses the opinion of 23 cycles, and if there are 11 cycles then it does not matter, because it is the practice of the sunnah. However, students who have a different background, when at school, must follow the Al Irsyad culture.

The inclusiveness side of the Al Irsyad Al Islamiyyah IT High School is also reflected in the school rules, namely every student of SMAIT Al Irsyad Al Islamiyyah behaves fairly and politely to others, respects others, communicates with others without hurting, and is not racist. Every problem that occurs is resolved by promoting a behavior win-win solution and a spirit of peace-loving.

So, it can be concluded that the three schools are trying to instill an inclusive attitude and internalize an attitude of respect and respect for every difference and promote peace-loving. However, the three schools have different sides, especially with regard to the method of making law. So that implies curriculum and practical learning for students. It should be underlined that building a community or jam'iyyah is important but must be able to work together with others. Certain jam'iyyah certainly have internal privacy, but this should be respected and respected [30]. In this case the existing differences encourage mutual appreciation of the various forms of values that exist and constructively dialogue with each other so as to form a civil society.

4 Conclusion

From the above discussion it can be concluded that both SMA Diponegoro Purwokerto, SMA Muhammadiyah Purwokerto and SMA IT Al Irsyad Al Islamiyyah Purwokerto, even though they have different Islamic organizational affiliations, both view diversity as a necessity that should be appreciated positively as part of dynamic motion. The inculcation of values through Islamic religious learning with an inclusive paradigm is considered important to be implemented, so that religious learning does not stop at the cognitive aspect, but comes to appreciation and as a way of life.

The Islamic education pattern with an inclusive paradigm in each of these schools tends to adapt to the ideology of the Islamic organization that supports it. So, it cannot be denied that each of these schools has a different legal basis for enrichment. So that it is very supportive to influence students' views about diversity and also has implications for various curriculum constructions and learning praxis. The infiltration of inclusive understanding in the three schools was more predominantly implemented in the material of Aqidah-Akhlak and Tarikh. Meanwhile, the Fiqh material tends to be exclusive according to the view of the organization.

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References


The Effect of Green Coconut Water (Cocos Nucifera) before Aerobic Physical Activity on Pulse Recovery in Athletic Athletes

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Abstract. Athletics is a sport with many numbers of matches, every athlete can take 2 numbers, this requires a nutrient that can help restore the pulse faster, especially in running numbers. The objective of this study is to determine the effect of green coconut water on the decrease in recovery pulse at the 5th, 7th, and 9th minute. The research method used in this study is pre-experimental design with one-group pretest-posttest design. The population of the study was athletes in Pekalongan Regency with 13 total sample. Materials/tools used are whistles, measuring cups, pencils, notebooks, green coconut water. The study was conducted in February 2020 at Widya Manggala Krida Stadium, Pekalongan Regency. This study uses two research variables: (1) independent variables: mineral water and green coconut water (2) dependent variables: recovery pulse (5th, 7th, 9th minutes). The research data analysis technique was independent t-sample test. The test was carried out at a significant level of p = 0.05. Statistical test results from the t-sample show that there is a difference in recovery pulse at the 5th minute (p = 0.002), recovery pulse at the 7th minute (p = 0.000), recovery pulse at the 9th minute (p = 0.001). The conclusion in this study is that there is an effect of giving green coconut water drink before aerobic physical activity on the recovery pulse.

Keywords: mineral water, green coconut water, aerobic physical activity, recovery pulse

1 Introduction

Strenuous aerobic physical activity will cause a buildup of body fluids and lactic acid which is released through sweat. This fluid is highly sought after in order to maintain the body's balance process. [1] Argue that when the body lacks fluids, the body will experience dehydration. Very strenuous aerobic physical activity will affect the increase in pulse rate and the need for efforts to overcome this recovery [2].

Recovery is needed to restore the body's condition due to high intensity aerobic physical activity. The recovery period ranges from 5 to 9 minutes after activity, namely at the fifth, seventh and nine minutes. [3] Sweat during various activities depending on each individual. This activity causes the body to lose a lot of substances in the body in the form of minerals such as potassium, magnesium, zinc, sodium and iron. The function of sodium is as a regulator of pH in the blood, osmotic pressure and fluid balance do not cause pressure due to cell shrinkage [4]. What happens to fluid problems in the body will have an ongoing impact and affect the process of improving circulation in the body which is not normal so that changes in needs occur in other
activities. In an effort to follow up on this problem, which researchers have the initiative to compare the effects of green coconut air before doing aerobic physical activity [5].

Young coconut water contains macro nutrients such as 4.11% carbohydrates, 0.12% fat, and 0.13% protein (7). Micronutrients in coconut water are vitamin B (B1, B2, B3, B5, B6, B7, B9) and vitamin C. The minerals in coconut water are N, P, K, Ca, Mg. (7,20). Young coconut water contains the highest K element. Aqua water contains calcium 11-25 mg/l, magnesium 6-22 mg/l, potassium 1-8 mg/l, sodium 9-25 mg/l, bicarbonate 71-187 mg/l, chloride 1-25 mg/l, sulfate 2-33 mg/l, silica 62-87 mg/l, TDS 88-190 mg/l, pH 6.7-7.2 [6].

Young coconut water contains about 291 mg of potassium per 100 ml [7]. Young coconut water can normalize blood pressure. Potassium in coconut water balances the function of sodium in blood pressure imbalances [8]. Potassium lowers blood pressure is estimated by the mechanism of natriuresis in the kidney, endhotelium-dependent vasodilation, and the central effect through the renin angiotensin aldosterone (RAA) mechanism and an increase in the Na pump which decreases sympathetic nerve activity [7]. Potassium can lower systolic and diastolic blood pressure by inhibiting the release of renin so that it can help increase sodium and water excretion [9].

Many studies have examined the various uses of coconut water such as: 1) explained that young coconut water has a positive effect on improving pulse recovery [10], 2) concluded that 350 ml coconut water is drunk 30 minutes before physical activity can accelerate the decrease in pulse [11], and 3) examined that young coconut water has an effect on lowering blood pressure in people with hypertension [12]. However, the three studies only mentioned young coconut water and coconut water. While in the market there are several types of coconut water, one of which is green coconut water which is known in the community as penjalin coconut water. According to researchers, green coconut water is coconut water that is better than other types of coconut water. When viewed from a price point of view, green coconut water is also more expensive. This is what attracts researchers to further investigate the benefits of green coconut water before performing aerobic physical activity on pulse recovery.

The purpose of this study was to determine how much influence green coconut water (Cocos nucifera) has on pulse recovery in the fifth, seventh and ninth minutes. While the expected contribution in this research is as an alternative to providing nutritional input to help accelerate pulse recovery in athletic athletes who can participate in two branch numbers in one match day so that it requires a contribution of scientific insight in meeting the nutritional needs of athletes, especially the fulfillment of fluids that can help. pulse recovery.

2 Method

Suggests the experimental research method can be explained as a method used to seek the treatment / effect of one thing for another when in controlled conditions [13]. The research method used pre-experimental design through a one-group pretest-posttest design. This research consists of two variables, independent and dependent. The independent variables include aqua mineral water (A1) and green coconut water (A2), while the dependent variable is pulse recovery (B). The population and sample in this study were all athletic athletes who are members of the PASI athletes in Pekalongan Regency, amounting to 13 athletes who have the criteria as athletes in the Pekalongan Regency athletics with the age of 15-22 years with a training ground at Widya Manggala Krida Kedungwuni Stadium.
The exclusion criteria were research subjects who could not represent the sample, including the sample who was unwell and refused to be a respondent. The inclusion criteria in this study were having high blood pressure, having asthma, hypertension and being unwell due to staying up late. The exclusion and inclusion criteria were based on their effect on the same decrease in pulse rate and unusual occurrence. This study has limitations on the sample including a) the samples are male and female, b) giving drink to the sample for only 5 days, and c) No control feeding of samples.

2.1 Pretest Implementation

Day 1 (Monday, March 9, 2020) samples / athletes are collected into one group, then each athlete is given 300 ml of mineral water with the aqua brand to drink 15 minutes before carrying out physical activity (aerobics) running 2.4 km together from start to finish. During this 15-minute break, the athletes are welcome to do a light warm-up, static and dynamic stretching. After the athlete reaches the finish line, the counting time begins with the athlete being allowed to walk lightly. In the fifth, seventh and ninth minute, each athlete has his / her pulse counted for 30 seconds via the wrist. The equipment used includes a whistle, stopwatch, pencil, notebook and measuring cup. The data obtained from these activities is used as the basis for dividing the control and experimental groups.

2.2 Treatment

According to Andika [12] Giving coconut water to the elderly for five days can lower blood pressure. That is the basis for the treatment for 5 days. The distribution of the control group (mineral water) consisting of 7 athletes and the experimental group (green coconut water) consisting of 6 athletes before the posttest implementation is Table 1.

<table>
<thead>
<tr>
<th>Time</th>
<th>Exercise material</th>
<th>Vol</th>
<th>Fluid Volume</th>
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<tbody>
<tr>
<td>Tuesday</td>
<td>Strength down</td>
<td>70 %</td>
<td>1500 ml/day</td>
</tr>
<tr>
<td>Wednesday</td>
<td>Bounding</td>
<td>5 Set</td>
<td>1500 ml/day</td>
</tr>
<tr>
<td>Thursday</td>
<td>Short Speed</td>
<td>70 %</td>
<td>1500 ml/day</td>
</tr>
<tr>
<td>Friday</td>
<td>Abdominal plank</td>
<td>10 set</td>
<td>1500 ml/day</td>
</tr>
<tr>
<td>Saturday</td>
<td>Agility</td>
<td>70 %</td>
<td>1500 ml/day</td>
</tr>
</tbody>
</table>

2.3 Post-test implementation

The first picture will explain about the process of carrying out data collection in the control group, and in the second picture describes the process of carrying out data collection in the experimental group. Implementation of the post test was held on the 7th day (Sunday, 15 March 2020). Control group research design show in Figure 1 and research design of the experimental group show in Figure 2.

Fig. 1. Control group research design
Fig. 2. Research design of the experimental group

Where: A1 as drink aqua mineral water; A2 as drink green coconut water; O as 2.4 km run test; and B as pulse recovery. The following variables are related: a) the drinks in question are Aqua mineral water and green coconut water (Cocos Nucifera) with a dose of 300 ml each, given 15 minutes before doing the 2.4 km running test with start and finish together; b) pulse recovery in this study conducted a 2.4 km running test, measured pulse recovery at minutes five, seven and nine for 30 seconds on the wrist to find out how much the pulse decreased; and c) equipment used: A cloth, stopwatch, measuring cup, pencil and notebook.

3 Results and Discussion

This research was conducted for 7 days located at Widya Manggala Krida Krida Kedungwuni Stadium, the sample in this study consisted of 13 athletes in male and female athletics, where the first day was carried out a pre-test with the sample doing physical activity with a 2.4 km running test. After completion of the sample, the pulse recovery rate will be measured at minutes five, seven and nine for 30 seconds, from the data obtained then the sample is divided into control and experimental groups. On the second to the sixth day the control group was given 1500 ml of aqua mineral water for each day and the experimental group was given 2 green coconut water drinks to drink every day. Then on the seventh day, a post-test was carried out with the control group given 300 ml of aqua mineral water and the experimental group given 300 ml of green coconut water. Drinks are drunk 15 minutes before doing physical activity to run 2.4 km together from start to finish. After completing the measurement of his recovery pulse on the wrist at the fifth, seventh and ninth minute in each group. Data processing using the SPSS program.

3.1 Descriptive Test Results

The Table 2 explains that the number of group samples is 7 athletes, with each athlete measuring the pulse recovery 3 times, namely at the fifth, seventh and ninth minutes, so that the number of control sample data is 21.

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>21</td>
<td>42</td>
<td>62</td>
<td>51.38</td>
<td>5.723</td>
</tr>
<tr>
<td>Post</td>
<td>21</td>
<td>59</td>
<td>75</td>
<td>65.95</td>
<td>4.248</td>
</tr>
</tbody>
</table>

The Table 3 explains that the number of group samples is 6 athletes with each athlete measuring the pulse recovery 3 times, namely at the fifth, seventh and ninth minutes, so that the number of control sample data becomes 18.
Table 3. Descriptive analysis of the results of the decrease in pulse rate of the experimental group

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre</td>
<td>18</td>
<td>44</td>
<td>58</td>
<td>50.78</td>
<td>4.493</td>
</tr>
<tr>
<td>Post</td>
<td>18</td>
<td>60</td>
<td>78</td>
<td>71.00</td>
<td>5.190</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>18</td>
</tr>
</tbody>
</table>

3.2 Normality Test Results

Table 4 showing Shapiro-Wilk normality test.

Table 4. Shapiro-Wilk Normality Test Results

<table>
<thead>
<tr>
<th>Group</th>
<th>Kolmogorov-Smirnov*</th>
<th>Shapiro - Wilk</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statistics</td>
<td>df</td>
</tr>
<tr>
<td>Green coconut water</td>
<td>.126</td>
<td>18</td>
</tr>
<tr>
<td>Mineral water</td>
<td>.164</td>
<td>21</td>
</tr>
</tbody>
</table>

Based on Table 4 indicates that the sig value indicates >0.05 that the data is normally distributed.

3.3 Data Analysis Test Results on Mineral Water

Table 5 showing result of t-test data analysis for aqua mineral water at 5, 7, and 9 minutes.

Table 5. The results of t-test data analysis for aqua mineral water at 5, 7, and 9 minutes

<table>
<thead>
<tr>
<th>Minute</th>
<th>Paired Differences</th>
<th>Mean</th>
<th>Std. Dev</th>
<th>Std. Err Mean</th>
<th>low</th>
<th>up</th>
<th>t</th>
<th>df</th>
<th>Sig.(2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Pre - Pos</td>
<td>-14.000</td>
<td>5.508</td>
<td>2.082</td>
<td>-19.094</td>
<td>-8.906</td>
<td>-6.725</td>
<td>6</td>
<td>.261</td>
</tr>
<tr>
<td>9</td>
<td>Pre - Pos</td>
<td>-17.571</td>
<td>7.413</td>
<td>2.802</td>
<td>-24.427</td>
<td>-10.716</td>
<td>-6.271</td>
<td>6</td>
<td>.081</td>
</tr>
</tbody>
</table>

Based on Table 5, the sig value >0.05 then Ha (final hypothesis) is rejected, and Ho (initial hypothesis) is accepted, with the conclusion that there is no difference between the results of the pre-test post-test, which indicates that there is no effect of mineral water. Results t-test data analysis for green coconut water at 5, 7, and 9 minutes show in Table 6.

Table 6. Results of t-test data analysis for green coconut water (Cocos Nucifera) at 5, 7 and 9 minutes

<table>
<thead>
<tr>
<th>Minute</th>
<th>Paired Differences</th>
<th>Mean</th>
<th>Std. Dev</th>
<th>Std. Err Mean</th>
<th>low</th>
<th>up</th>
<th>t</th>
<th>df</th>
<th>Sig.(2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Pre - Pos</td>
<td>-19.167</td>
<td>4.401</td>
<td>1.797</td>
<td>-23.785</td>
<td>-14.548</td>
<td>-10.668</td>
<td>5</td>
<td>.000</td>
</tr>
<tr>
<td>9</td>
<td>Pre - Pos</td>
<td>-23.833</td>
<td>7.834</td>
<td>3.198</td>
<td>-32.054</td>
<td>-15.612</td>
<td>-7.452</td>
<td>5</td>
<td>.001</td>
</tr>
</tbody>
</table>
Based on Table 6, the sig value <0.05 then Ho (initial hypothesis) is rejected, and Ha (final hypothesis) is accepted, with the conclusion that there is a difference in the pre-test post-test, which means that there is an effect of green coconut water (Cocos Nucifera).

3.4 The effect of green coconut water drink on the decrease in pulse rate in athletic athletes in Pekalongan Regency

Based on the facts and existing theoretical studies, young coconut water has a content consisting of 17% potassium, 15% magnesium and 10% vitamin C. The content of young coconut water can reduce pulse [8]. Young coconut water contains about 291 mg of potassium per 100 ml [7]. Young coconut water can normalize blood pressure. Potassium in coconut water balances the function of sodium in blood pressure imbalances [8]. Potassium lowers blood pressure is estimated by the mechanism of natriuresis in the kidney, endhotelium-dependent vasodilation, and the central effect through the renin angiotensin aldosterone (RAA) mechanism and an increase in the Na pump which decreases sympathetic nerve activity [7]. Potassium can lower systolic and diastolic blood pressure by inhibiting the release of renin so that it can help increase sodium and water excretion [9].

The mineral content in the form of potassium can keep blood vessel walls elastic, minimize blood vessel constriction, renin secretion, decrease Aldosterone and have the effect of activating Na-K in the form of potassium derived from extra cellular fluids to cells, as well as sodium when activated. So that potassium can restore the pulse [14]. Researchers assume that the decrease in pulse recovery is due to the consumption of 2 green coconut water in 5 days 2 times a day (morning and evening). In addition, according to potassium is very useful in reducing diastolic and systolic blood pressure through inhibition of renin release which helps increase sodium and water excretion [15].

Researchers recommend green coconut water as an herbal drink that can be consumed regularly 2-3 glasses per day which serves as an alternative to non-pharmacological treatment to reduce the recovery rate.

3.5 The effect of drinking mineral water and green coconut water on decreased pulse rate in athletic athletes in Pekalongan Regency.

Based on the facts and existing theoretical studies, the results of the t test calculations in the fifth, seventh and nine minutes respectively show the sig value > 0.05 minutes 5 = 0.108, 7 minutes = 0.261 and 9 minutes = 0.081 so it can be concluded that it does not show the difference between pretest and posttest, so it means that there is no influence of mineral water. For the experimental group, the results of t-test calculations in the fifth, seventh and nine minutes respectively show the sig value <0.05 minutes 5 = 0.002, 7 minutes = 0.000 and 9 minutes = 0.001 so that it can be concluded that it shows the difference between pretest and posttest which means it is concluded that there is an effect that giving green coconut water can restore the pulse after physical activity.

These results can be seen from the decrease in the experimental group's pulse after doing physical activity running 2.4 km with the playing duration. The results of achieving the value of pulse recovery, researchers know that regular administration of green coconut water for 5 days can have an effect on reducing the pulse rate after physical activity. Provision of coconut water can restore the pulse faster than mineral water because green coconut water contains
mineral electrolytes which contribute to replacing body fluids through sweat caused by physical activity.

The amount of sweat lost can be replaced by giving electrolytes. It is recommended to give anti-dehydration fluids containing components. Aqua water contains 11-25 mg/l calcium, 6-22 mg/l magnesium, 1-8 mg/l potassium, 9-25 mg/l sodium, 71-187 mg/l bicarbonate, chloride 1-25 mg/l, sulfate 2-33 mg/l, silica 62-87 mg/l, TDS 88-190 mg/l, pH 6.7-7.2. However, these needs depend on gender, age, type of athletic branch, environmental origin, eating habits, exercise, smoking, history of parental disease and history of cardiovascular disease.

4 Conclusion

The results of this study concluded that there was an effect of giving green coconut water on pulse recovery in athletics in Pekalongan Regency. From the results of the conclusions of this study, the provision of green coconut water is better than mineral water and it is suggested for further researchers to do other sports with different treatments.

Acknowledgement

This research uses funding from lecturers' research funds through LPPM Muhammadiyah University Pekajangan Pekalongan. The researcher would like to thank those who have been involved in this research activity, including athletes and coaches of PASI Pekalongan Regency who were willing to be samples in this activity and students of the Physical Education study program who have helped the implementation process from preparing equipment, collecting data to making research reports.

References


The Implementation of Principle of Justice in Resolving of Consumer Credit Financing Disputes During the Covid-19 Pandemic in Indonesia

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Abstract. The Covid-19 pandemic had a major impact on the economy, one of which was in the consumer credit financing sector where a number of people who became debtors experienced difficulties in making installment payments so that they experienced disputes with financing companies. One of them is a case that occurred in Bandung where a two-wheeled motor vehicle financing loan debtor who only had 2x installments left out of a total of 33x experienced difficulties in paying monthly installments because he had not worked due to the impact of the Covid-19 pandemic where in this case the debtor had filed a lawsuit through BPSK Bandung city where the BPSK decision was overturned by the District Court. The problem discussed in this study is how to apply the theory of justice in the settlement of credit financing disputes during the Covid-19 pandemic. This study uses a qualitative method with a case approach and by relating it to John Rawls's theory of justice. The results of this study indicate that the application of the theory of justice in this case is not used as a consideration for court decisions.

Keywords: Consumer credit financing, Dispute, Covid-19

1 Introduction

The first case of covid-19 in Indonesia was announced on March 2, 2020 \cite{1}, since then the number of covid-19 cases has continued to increase and was declared a pandemic by WHO on March 11, 2020 \cite{2}. The government adopted a Large-Scale Social Restriction (PSBB) policy through Permenkes 9/2020 concerning PSBB Guidelines for the Acceleration of Handling COVID-19 which was set in Jakarta on April 3, 2020. The emergence of the Covid-19 Pandemic and the PSBB policy by the government had a significant impact on various sectors, especially in the economic sector. Community income has dropped dramatically because people cannot work as before. Many people who have obligations in credit agreements in banks and in finance companies have difficulty paying their debt obligations, if this happens there will be a lot of bad credit which will threaten the stability of the domestic financial system. Therefore, the government issues relaxation stimulus policy for banking debtors through the Financial Services Authority Regulation (POJK) Number 11 / POJK.03 / 2020 concerning National Economic Stimulus as a Countercyclical Policy on the Impact of the Spread of Coronavirus Disease 2019 and Regulation Number 14 / POJK.05 / 2020 concerning the Countercyclical Policy on the Impact of Coronavirus Spread Disease 2019 for Non-Bank Financial Services Institutions.
(LJKNB). Based on the POJK provisions, it is stated that NBFIs can provide financing restructuring to debtors who are affected by the spread of covid-19.

Various cases of financing disputes began to occur after the emergence of the Covid-19 pandemic, one of which was the financing dispute between Siti Solihat and PT Federal International Finance (FIF) based on decision 336/Pdt.G/2020/PN.Bdg. The background of this case was when Siti Solihat had a consumer financing agreement in the form of motorcycle financing on June 3, 2017 with installments for a period of 33 months, Siti Solihat made 31 months of payments, and then due to the Covid-19 pandemic, Siti Solihat had difficulty making payments. The remaining 2 months of the last installment. As a result of the arrears in installments, Siti Solihat's motorbike that was being driven by her child was stopped in the middle of the road by a third party who claimed to be from FIF and handed over the data of Siti Solihat's motorcycle vehicle precisely with the aim of taking the motorbike because it was still in arrears of payment [9]. Siti Solihat's motorbike and STNK were taken by a third party. According to the third party's information, if the motorbike and STNK want to be returned, please contact the FIF to solve it. However, when Siti Solihat came to the FIF to take care of taking the motorbike pulled by the third party, it turned out that the motorbike was not in the FIF Lembang office and was advised by the FIF to report to the Cinambo Police, Bandung. Then Siti Solihat took this problem to the Bandung Consumer Dispute Resolution Agency. Then the BPSK according to Decision Number 18/G/VII/2020/BPSK.Bdg. August 11, 2020, in the decision stated that the Business Actor, in this case PT. FIF Lembang Branch as Business Actor / Defendant to return the motorbike owned by Siti Solihat as the Consumer / Plaintiff, then Siti Solihat as the consumer / Plaintiff was sentenced to pay the outstanding arrears.

Then the PT. FIF Lembang Branch filed an objection to the Bandung District Court and based on Decision Number 336/Pdt.G/2020/PN.Bdg. and the contents of the decision state that BPSK is not authorized to examine and adjudicate the case and cancel the BPSK decision Number 18/G/VII/2020/BPSK.Bdg. and sentenced Siti Solihat to pay a court fee of Rp. 376,000.

This study uses substantive justice theory in analyzing existing problems. Anwar C [3] said that humans are not perfect in making laws because it requires the ability of judges to interpret laws, therefore judges are encouraged to explore a sense of substantive justice rather than being bound by statutory provisions. Based on this description, the authors are interested in analyzing how is the implementation of principle of justice in the resolving of consumer credit financing disputes during the Covid-19 pandemic in Indonesia.

### 2 Method

This research method uses normative legal research methods with a qualitative approach. This qualitative research method is a research model that comes from social science to examine social problems and phenomena in depth with a relatively small research area or population but focus on data analysis. Conducted qualitatively, namely not using numbers and formulas but focusing on case studies in accordance with court decisions.

According to Soerjono Soekanto [4], research is a scientific activity based on analysis and construction carried out systematically, methodologically and consistently and aims to reveal the truth as manifestation of the human desire to know what it is facing. Then according to Peter Mahmud Marzuki [5], normative legal research is a process to find a rule of law, legal principles, and legal doctrines in order to answer the legal issues faced. In this study, including normative legal research using secondary data in the form of journals, books, court decisions.
3 Results and Discussion

The first cases of Covid-19 were found in Wuhan, China in December 2019 [6]. Since then, the Covid-19 cases began to spread throughout the world. As of February 29, 2020, there have been 102 positive cases of Covid-19 in Singapore [7]. Singapore began imposing travel restrictions on China and South Korea. As a result of the Covid-19 pandemic, the economies of these countries are experiencing a decline. China's economic growth fell -6.8% in the first quarter of 2020 [8], and Singapore economy down -0.3%. Indonesia announced the first case of Covid-19 on March 2, 2020 and adopted the Large-Scale Social Restrictions (PSBB) policy on April 3, 2020. The impact of covid-19 on the Indonesian people has occurred since the outbreak of the coronavirus in China in late December 2019 and its economic impact began to wider since March 2019 which caused the Indonesian economy to contracted by -5.3% in the second quarter of 2020. Since the Covid-19 pandemic, many consumer financings disputes have occurred.

3.1 The Dispute Case

This consumer dispute case appeared at the beginning of the emergence of the Covid-19 pandemic. Siti Solihat has a consumer credit financing agreement with PT Federal International Finance (FIF) in the form of financing for Honda Beat motorbikes in June 2017 for a period of 33 months. Siti Solihat has made 31 installments, but in early 2020 Siti Solihat had difficulty paying the remaining 2 installments due to her job loss due to the Covid-19 pandemic. On June 24, 2020 at around 10:00 WIB in the Cinambo area of Bandung, his son was stopped by two men who claimed to be field officers from the FIF branch of Lembang (Third Party). They asked about the ownership of the motorbike and matched the data they held, the third party said that the motorbike was in arrears in installments, so it had to be withdrawn (confiscated). Finally, the two men took the motorbike along with the STNK by giving a confiscation certificate and asking to hand over the confiscation letter to the Honda Motorcycle Dealer on Jl. Cihampelas Bandung. The third party said that Siti Solihat's motorbike was taken to the FIF Lembang office and waited there and asked to contact Mr. Yogi at the FIF. When Siti Solihat came to the FIF office, Mr. Yogi admitted that he did not know anything about the motorcycle withdrawal and gave a cover letter to the police. Cinambo. Siti Solihat, who did not get a solution to the problem of the motorbike's installment problem, came to the FIF office, and the police arrived. When Siti Solihat came to the FIF office, Mr. Yogi admitted that he did not know anything about the motorcycle withdrawal and gave a cover letter to the police. Cinambo. Siti Solihat, who did not get a solution to the problem of the motorbike's installment problem, came to the FIF office, and the police arrived. Siti Solihat agreed to choose a dispute resolution method through BPSK procedures and convened, but before the trial was concluded, FIF party left the court and did not attend again until the trial was decided by the decision of BPSK Number 18/G/VII/BPSK.BD. The decision of the BPSK for the city of Banding is as follows:

- State that the Defendant/Business Actor is unable to prove his/her innocence.
- Sentenced the Defendant / Business Actor to return a motorcycle with the HONDA Type Beat Brand, Year 2017, white color, No. Pol. D.6780.AAZ, No. Frame: MH11FZ112HK817897, No. Machinery: JFZ1E1831363, BPKB and STNK under the name of SITI SOLIHAT, along with the accompanying documents or replacing them with similar items of the same qualification and quality to the Plaintiff; within 14 (fourteen) calendar days from the date of this judgment.
- To punish the Plaintiff / Consumer to pay in arrears that are still due to the Defendant / Business Actor within a maximum period of 14 (fourteen) calendar days from the date of this judgment.
- All costs incurred in the examination of this dispute shall be borne by the State.
Then, the FIF party filed an objection to the Bandung City BPSK decision to the Bandung District Court.

3.2 Claims of Petitioners

The Plaintiff's claim (PT. FIF Cabang Lembang) is as follows:
- Granted all of the objection petitioners' application for objections;
- To declare that BPSK Bandung does not have the authority to adjudicate disputes;
- Declare that the Bandung City BPSK Procedure in this case is invalid so that the Bandung City Consumer Dispute Resolution Agency (BPSK) Arbitration Decision No: 18 / G / VII / 2020 / BPSK. BDG has become legally flawed so it must be declared null and void;
- Declare the Arbitration Decision of the Bandung City Consumer Dispute Resolution Agency (BPSK) No: 18 / G / VII / 2020 / BPSK. BDG in excess of the Lawsuit (Ultra Pettitum Partium);
- Declare that the Consumer Financing Agreement No. 30100455417 dated 3 June 2017 between Siti Solihat and PT Federal International Finance is valid and valuable in accordance with the valid terms of the agreement and must be implemented;
- To declare that PT Federal International Finance is not involved and is not responsible for the handover of the HONDA Type Beat Motorcycle, Year 2017, white color, No. Pol. D.6780.AAZ, No. Frame: MH1IFZ112HK817897, No. Machine: JFZ1E1831363, BPKB and STNK on behalf of SITI SOLIHAT carried out by the Respondent's child Objection to an unknown person by PT Federal International Finance;
- Stating that the handover letter or document used by the Respondent for Objection to file a complaint at the Bandung City BPSK is the Official Report on the Settlement of False Financing Liabilities and not an Official Report on the Settlement of Financing Liabilities owned by PT Federal International Finance;
- To punish the Respondent's objection to pay off the remaining debt and a fine due to consumer delay;
- Declare that the Respondent has legally and convincingly manipulated the reality by using a letter or document in the examination which was suspected of being fake, hiding the documents of a decisive nature, and a series of deception related to the case which was decisive in nature;
- Declare the Arbitration Decision of the Bandung City Consumer Dispute Resolution Agency (BPSK) No: 18 / G / VII / 2020 / BPSK. BDG legally flawed and declared null and void or at least completely annulled;
- To punish the Objection Respondent to pay the entire cost of the case in the examination of the objection request at the Special Class IA Bandung District Court.

3.3 District Court Decisions

The Bandung District Court Judge decided as follows:
- Granted the objection petitioner from PT Federal International Finance Bandung Branch Objection Petitioner;
- Declare that the Consumer Dispute Resolution Agency (BPSK) is not authorized to examine and adjudicate this case;
− Canceling the Decision of the Bandung Consumer Dispute Resolution Agency Number 18/G/VII/2020/BPSK.BDG dated 11 August 2020;
− Sentencing the Respondent to Objection (Siti Solihat) to pay the cost of this case in the amount of Rp. 376,000.00 (three hundred seventy-six thousand rupiah);

3.4 Analysis

The government has issued relaxation regulations in the credit sector through OJK Regulation (POJK) Number 11 / POJK.03 / 2020 concerning National Economic Stimulus as a Countercyclical Policy on the Impact of the Spread of COVID-19 on March 13, 2020 and POJK Number 14/POJK.05/2020 concerning the Countercyclical Policy on the Impact of Coronavirus Spread Disease 2019 for Non-Bank Financial Services Institutions (LJKNB) on April 14, 2020. From the timeframe from the difficulty of payment from Siti Solihat (Debtor) to the taking of the Debtor's motorcycle by a third party, this is the time span where the Covid-19 spread in the world and the Government's implementing policies through POJK No. 11 and 14 of 2020. Besides that, the debtor has shown good faith by making 31 payments out of a total of 33 installments, so that the Debtor's installment obligation only has 2 installments left. In this case, the debtor is entitled to legal protection and relaxation of relief in paying the remaining installments because he started experiencing problems when the Covid-19 pandemic began. The creditors' action of using a third party to collect the remaining installments is inappropriate during the Covid-19 pandemic and there are relaxation rules from the government. The attitude of the creditor who is not responsible for the taking of the debtor's vehicle by a third party is very detrimental to the debtor because this might not happen if the creditor has good faith in solving the debtor's problem considering the debtor's debt has almost been paid off.

The judge only considers the objection of the creditor regarding the legal standing of the BPSK decision based on consumer financing agreement document number 301001455417 and the existence of a financing agreement according to the validity conditions of the agreement according to Article 1320 of the Civil Code.

The judge did not consider the existence of a pandemic condition that had an impact on the debtor. The judge did not consider the existence of the relaxation policy given by the government through POJK Number 11 and POJK Number 14 of 2020 so that financial service actors provide restructuring for debtors affected by the Covid-19 pandemic. The judge did not consider the payments made by the debtor 31 times and only 2 installments were left. The judge did not consider that a third party took the debtor's vehicle on the road. The judge did not consider the protection of consumer personal data which should be confidential but known in detail by third parties. The judge did not consider the existence of a financing company cooperation with a third party in conducting debt collection.

4 Conclusion

It is not easy to translate justice into a judge's decision, in this case the decision has not fully considered substance justice. Fairness of substance that is objective, honest, impartial and rational consideration. Rational means according to reason or can be accepted by common sense.

This justice has not yet been fully realized, especially on the side of consumers who have been affected by Covid-19, the debtor is experiencing difficulties in paying the remaining credit of the last 2 installments and motorcycles that have been taken by third parties and are charged
with paying court fees. In solving the problem, the parties should have reached a consensus by restructuring the remaining debt so that a win-win solution can be achieved for the parties.

References


The Characterization and Testing Liquid Soap Nanoparticles of Tamarillo Extract as Antioxidants

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Abstract. The technology of nanoparticles is a formulating technology of a particle which dispersed on the nanometer size or scale per thousand microns. This study aims to characterization and produce the liquid soap preparation from nanoparticles of ‘terong belanda’ extract which is very good for the antioxidants. This technology has very significant effect as the antioxidants, so it possibly produced as cosmetic ingredients. The extraction method used here is maceration using of methanol solvent. Meanwhile, the making of technology of ‘terong belanda’ extract nanoparticles used biopolymer-based nanoparticle method. It was formulated as a liquid soap. The result of particle size analysis is extract nanoparticle for about 183,4 µm, the size of the nanoparticles in liquid soap has achieved 186.2 µm. Moreover, the result of antioxidants activity test which was conducted by the free radical scavenger method of DPPH obtained IC50 nanoparticle liquid soap preparation of 47 mg/ml, compared with scorbut acid IC50 at 49 mg/ml. Water content liquid soap nanoparticles tamarillo extract is 7.4% Besides, the results of the stability test for liquid soap nanoparticles, consisting pH 8.3-8.6, viscosity (3928 – 3930 poise), Foam stability power test is 85.87 and 89%, stated there is no consistency changing of each formula. From organoleptic test, it resulted a light yellow from ‘terong belanda’ color, a characteristic soap odor and a physical condition with thick / semi-solid consistency. The last, it could be concluded from the nanoparticles liquid soap testing; there is no changing of nanoparticles size. However, it resulted a strong antioxidant power and the stability of the preparation meets the SNI requirements.

Keywords: Liquid soap nanoparticles, Tamarillo extract, Antioxidants

1 Introduction

Tamarillo fruits is a domestic commodity that has good potential to be developed. Therefore, research is needed to make use of tamarillo so that it is easily distributed and promoted. This fruit is mostly consumed as fruit, whether it is used fresh, made in syrup, or juice. Other than that, may be useful for cosmetics. The use of cosmetic preparations in the form of nanoparticles is developing.

The technology of nanoparticles is a formulating technology of a particle which dispersed on the nanometer size or scale per thousand microns. This study aims to characterization and produce the liquid soap nanoparticles of tamarillo extract as antioxidants. This study aims to characterization and produce the liquid soap nanoparticles of tamarillo extract as antioxidants.

The contribution of this research is development of nanoparticles in natural ingredients that are useful for cosmetics, thus increasing innovation in cosmetic preparations. The use of cosmetic preparations of nanoparticles is still possible to develop more widely, considering that...
now every human being, whether male or female, needs cosmetics according to their portion for their appearance every day.

2 Method

2.1 Equipment and Materials

Equipment used is blender, oven, sieve mesh 40, glass jar, spoon, evaporator, stirrer magnetic, centrifuge, baker glass, analytical balance, filter paper, Particle Size Analyzer (PSA), Scanning Electron Microscopy (SEM), mortar, pH meter, viscometer ostwald, pknometer, test tube, microscope. Materials used is atsiri oils 3%, VCO 30 gr, NaOH 5.1 gr, NaCl 0.2 gr, Sitrit acis 0.3 gr, Stearic acid 5 gr, Aquadest 15 mL, alcohol 96%, gliserin, glucose solution, coloring and fragrance to taste.

2.2 Preparation of nanoparticles extract tamarillo

The amount of 1 gram extract was dissolved in 35 mL of ethanol pa mixed with 15 mL of distilled water in a 2000 ml glass beaker, then added 100 mL of chitosan solution in 1% glacial acetic acid solution. Then add 350 ml of NaTPP gradually to the mixture, while stirring with a magnetic stirrer at a stable speed for 2 hours [1]. After all the ingredients are mixed with colloid nanoparticles, chitosan NaTPP, tamarillo extract is separated by centrifugation of the solids obtained and then put in a freezer ± 4 ° C for ± 2 days. Storage is moved in a refrigerator ± 3 degrees Celsius until dry [1], which is then dried by spray dying so that a dry powder of ethanol extract nanoparticles is obtained [3].

2.3 Nanoparticles characterization

The nanoparticles characterization of the ethanol extract of tamarillo was characterized using a Particle Size Analyzer and a zeta sizer (PSA) to determine the particle size and zeta potential value of tamarillo extract nanoparticles [4]. The Particle Size Analyzer is able to measure particles ranging from 0.02 nm to 2000 nm [5]. The particle size is calculated based on the Stokes-Einstein correlation function and the brown motion is defined as the translational diffusion coefficient so as to produce a size distribution in intensity, number and volume [4].

2.4 Preparation Liquid soap Nanoparticle’s tamarillo extract

Liquid soap Nanoparticle’s tamarillo extract containing 3 formulas with different concentration variations as presented in Table 1.
Tabel 1. Liquid Soap Nanoparticle tamarillo extract

<table>
<thead>
<tr>
<th>No</th>
<th>Materials</th>
<th>Formulas and composition (%)</th>
<th>F1</th>
<th>F2</th>
<th>F3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tamarillo Nanoparticles extract</td>
<td></td>
<td>10</td>
<td>15</td>
<td>20</td>
</tr>
<tr>
<td>2</td>
<td>Sodium Lauryl Sulfate</td>
<td></td>
<td>18,5</td>
<td>18,5</td>
<td>18,5</td>
</tr>
<tr>
<td>3</td>
<td>NaCl</td>
<td></td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>Propylene Glycol</td>
<td></td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>Sitrit Acid</td>
<td></td>
<td>0,5</td>
<td>0,5</td>
<td>0,5</td>
</tr>
<tr>
<td>6</td>
<td>Aquaest</td>
<td></td>
<td>ad 100</td>
<td>ad 100</td>
<td>ad 100</td>
</tr>
</tbody>
</table>

The method of preparation is Na Lauril Sulfate mixed with NaCl, stirring until homogeneous. The mixture was added with citric acid and propylene glycol, then added with aqua destilata and tamarillo extract nanoparticles, stirring until homogeneous. After all the ingredients are mixed, the volume is sufficient using aqua destilata to 100 mL [4].

Antioxidant test. 0.5 ml of sample solution from various concentrations (10 ppm, 50 ppm, 100 ppm and 150 ppm and 200 ppm) then each one is added with 3.5 ml of DPPH. Then, vortexed and incubated on temperature 37°C in a dark room. Be measured absorbance at a wavelength of 517 nm.

Test the Preparation. Organoleptic test, Observed the consistence, color and aroma of the liquid soap preparation.

Water Content test. Water content in Liquid soap nanoparticles used moisture meter.

Homogeneity test. Take a little dosage form of the formula, then put a little dosage between the two slides. The arrangement of coarse or inhomogeneous particles is observed.

pH test. pH test is carried out by preparing each sample preparation. The electrodes are immersed in the preparation until the pH meter shows a steady reading. Record the results of the examination.

Viscosity test. Viskositas testing used Viscosimeter Rionseri VT 04 rotor no 2.

Foam Stability power test. The height of liquid soap solution stirred at speed certain magnetic uses stirrer measured high foam formed measured and observed each week for 6 weeks.

Cycling test. The cycling test is an accelerated test by storing the sample at 24 °C for 24 hours, then transferring it to an oven at 40 °C for 24 hours. This treatment is 1 cycle. The treatment was repeated for 6 cycles, observations were made with organoleptic parameters, homogeneity, pH, spreadability, and viscosity [5].

3 Results and Discussion

3.1 Result

The DPPH test results were 50% inhibitory concentration (IC50) of free radical nanoparticle liquid soap of 47 mg / mL and IC50 of vitamin C was 49 mg / mL. Test DPPH result are shown in Figure 1.
The homogeneity of liquid soap nanoparticles tamarillo extract from the first week to the third week, the results were stable, namely good homogeneity. In accordance with SNI standards that product homogeneity must always be good. The homogeneity test result are shown in the Table 2.

Table 2. Result of homogeneity test

<table>
<thead>
<tr>
<th>Formula</th>
<th>Week 1</th>
<th>Week 2</th>
<th>Week 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Homogen</td>
<td>Homogen</td>
<td>Homogen</td>
</tr>
<tr>
<td>II</td>
<td>Homogen</td>
<td>Homogen</td>
<td>Homogen</td>
</tr>
<tr>
<td>III</td>
<td>Homogen</td>
<td>Homogen</td>
<td>Homogen</td>
</tr>
</tbody>
</table>

The result of this test is that all formulas produce the same viscosity in the same week. The change in viscosity for each week increases by 1 poise, but is still within the SNI requirement range (less than 20,000 poise). So that it can be concluded that the viscosity is included in the SNI requirements. The results of viscosity test are shown in the Table 3.

Table 3. Result of viscosity test

<table>
<thead>
<tr>
<th>Formula</th>
<th>Week 1</th>
<th>Week 2</th>
<th>Week 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>3928</td>
<td>3929</td>
<td>3931</td>
</tr>
<tr>
<td>II</td>
<td>3928</td>
<td>3929</td>
<td>3931</td>
</tr>
<tr>
<td>III</td>
<td>3928</td>
<td>3929</td>
<td>3931</td>
</tr>
</tbody>
</table>

3.2 Discussion

Zeta potensial describes the potential for nanoparticle molecules to move away from each other or clump together. The normal value of zeta potential is $<$30 mV, or more than$>$ 30 mV [7]. The result of making tamarillo nanoparticles is -8.3 mV, thus allowing these nanoparticles to settle easily, so the next preparation must be done immediately. The ideal nanoparticle size is 1-1000 micro [6]. The result of measuring the nanoparticles of tamarillo was 182.4 um. The measurement result of nanoparticles from liquid soap was 186.2 µm. The nanoparticle particle size is relatively unchanged. This is because the soap making is not overheated, so the particle size is relatively stable.
Antioxidant testing is intended to test the activity of a sample against antioxidant or anti-free radical power. Antioxidant testing uses DPPH. DPPH is a stable free radical compound so that if it is used as a reagent in the free radical scavenging test, it is sufficient to dissolve it and when it is stored in dry conditions with good and stable storage conditions for years. DPPH absorbance values ranged from 515-520 nm. DPPH free radical reduction method is based on reduction of colored DPPH free radical methanol solution by free radical inhibition. When the purple DPPH solution meets the electron donor material, the DPPH will be reduced, causing the purple color to fade and be replaced by a yellow color coming from the picryl group. The DPPH test results were 50% inhibitory concentration (IC50) of free radical nanoparticle liquid soap of 47 mg/mL and IC50 of vitamin C was 49 mg/mL.

Organoleptic test carried out on liquid soap nanoparticles tamarillo extract is test of the aroma, color and form/consistency of the soap [8]. This test was carried out for 3 weeks. The result of this test are Aroma: Formula 1, 2, and 3, there was no change in smell / aroma during the 3 week observation. The aroma produced is the distinctive smell of soap.

Color: In the observation of colors in formulas 1,2 and 3 for 3 weeks, a constant color is produced. The first, second- and third-week colors are the same / there is no color change.

Form / Consistency: The consistency or form of semi-solid / viscous tamarillo nanoparticles liquid soap. The observation for 3 weeks resulted that there was no change.

The homogeneity pf liquid soap nanoparticles tamarillo extract from the first week to the third week, the results were stable, namely good homogeneity. In accordance with SNI standards that product homogeneity must always be good.

The result of tes pH of formulas 1,2, and 3 liquid soap nanoparticles of tamarillo extract ranged from 8.3 to 8.6. The results obtained are in accordance with SNI standards for pH of skin preparations 8-11. Formula 1 has a lower pH because the composition of formula 1 has a lower level of active substance with the same solvent.

The purpose of the viscosity test was to determine the stability of liquid soap nanoparticles tamarillo extract in viscosity parameters. The result of this test is that all formulas produce the same viscosity in the same week. The change in viscosity for each week increases by 1 poise, but is still within the SNI requirement range (less than 20,000 poise). So that it can be concluded that the viscosity is included in the SNI requirements. The results of the viscosity test are shown in the table 3.

Foam stability is a condition in which a soap preparation has a relatively constant foam, so that the lathering power of the preparation is constant. In accordance with the Indonesian National Standard, the stability of the foam is not less than 70% (<70%). The results of the foam stability observations from formulas 1,2 and 3 were 85%, 87% and 89%, respectively. The results of this observation are in accordance with the SNI regulation.

Used to test the water content in the liquid soap nanoparticle tamarillo extract. The water content required for liquid soap is less than 10% (<10%). The water content produced in the liquid soap nanoparticles of tamarillo extract is 7.4%, so that this water content is in accordance with SNI and Indonesian pharmacopoeia requirements.

4 Conclusion

The IC50 value of liquid soap nanoparticle is 47 µg/ml. The particle size of nanoparticle extract was 182.4 µm and the particle size of the liquid soap nanoparticle is 186 µg/ml. Liquid soap nanoparticle Tamarillo extract has a moisture content of 7.4%, pH 8.3-8.9, foam stability...
test of 85.87, and 89%, viscosity of 3928-3931 poise, homogeneous consistency and organoleptic (aroma, color, consistency) is stable. It is necessary to make other dosage forms for cosmetic.

Acknowledgement

We would like to thank the head of the institute for research, community service innovation and creativity, Universitas Muhammadiyah Pekajangan Pekalongan for the financial support provided so that this research can be completed smoothly.

References

Abstract. There are between 4.4 and 3.6% of the world's population who experience depression and anxiety. Data on Basic Health Research shows that the proportion of Indonesian people suffering from emotional mental disorders fell from 11.6 to 6% in 2013. Maternal mental health can affect children’s growth and development. The purpose is to investigate the relationship between maternal mental health and the risk of children's diarrhea and ARI in Indonesia. Data comes from the Indonesian Basic Health Research in 2013. The analyzed variables using logistic regression are the history of acute respiratory infection (ARI) and diarrhea, child and maternal characteristics. The prevalence of high common mental disorders (CMD) is 4.6%. ARI has a higher incidence compared to the incidence of diarrhea (40.6% and 11.9%). The analysis shows that maternal CMD is related to ARI history (OR= 2.12; 95% CI: 1.87-2.40) and diarrhea history (OR=2.36; 95% CI: 2.03-2.74). Maternal CMD is associated with the incidence of child illness and increases the risk of ARI and diarrhea. Implication. The intervention to increase the maternal mental health status needs to get more attention because it contributes to the child's health status.

Keywords: ARI, children, diarrhea, mental health

1 Introduction

Mental health is an inseparable part from health problem corresponding to what is written in the Constitution of WHO stating that health is a complete physical, mental and social condition, not only because there is no certain diseases or weaknesses. Women are one of the vulnerable groups to mental disorder problems caused by the household problem, poverty, too much work, and stress [1]. According to the data from WHO, most of the mental disorders are anxiety and depression. Estimated that 4.4% of the world population suffers from depression and around 3.6% get anxiety. Besides that, more than 80% of this disorder is experienced by people living in low and middle-income countries [2]. The data from Basic Health Research 2007 states that the proportion of Indonesian people suffering from an emotional mental disorder is 11.6% and level down in 2013 which is 6%. Based on those two surveys, the percentage of emotional mental disorders is higher suffered by women [3].

The theoretical framework regarding parenting and its impact on children from UNICEF states that maternal characteristics are one of the factors that can influence the growth, development, and survival of children. These maternal characteristics are related to physical and mental health problems, education, employment, and knowledge about nutrition issues [4]. The maternal mental health, in this case, is stress or in the more severe level called depression will affect how the parenting is done. Some researches state that mothers with depressive symptoms compared to those who are not will bring up certain problems to the children [5]–[7]. The
positive mother’s feelings will increase her feeling and responsibility to her children, so she can realize what ability they have, give them support and help to learn new things [8]. On another side, poor maternal mental health will relate to the problem of breastfeeding and feeding practice that is not optimal and decrease the interaction between mothers and children [9-10].

Research in Bangladesh and Vietnam showed that mental disorder problem in mothers will relate to the children’s stunting and underweight. Moreover, it was related to their health [11]. The data on children’s nutritional status in Indonesia has changed for five years. The proportion of under-five children suffering underweight in 2007 was 18.4% and slightly increased in 2013 to 19.6%. While the proportion of toddlers suffered from wasting in 2007 was 13.6%, and it decreased by 12.1% in 2013 [3]. The most frequent diseases experienced by a child and includes the global main factor of childhood mortality are respiratory tract infection and diarrhea [12]. Based on the Riskesdas result, diarrhea in under-five children according to the health workers diagnosis which was 2.2% and 3.5% with the most common symptom as the diagnoses (in 2013). It has decreased than in 2007 which was 5.1% and 9%. The proportion of ARI for all ages in 2007 was 8.1% (based on the health workers diagnose) and 25.5% (based on ARI symptom) and there were 13.8% and 25% in 2013 [3].

Based on the explanation before, the relationship between maternal emotional mental disorder and children’s health history in Indonesia should be determined.

2 Method

The source of data was taken from the 2013 Indonesian Basic Health Survey (Risksdas). Risksdas was a national-scale survey conducted in a cross-sectional by the Ministry of Health. Risksdas sample was carried out by multistage cluster random sampling. The stages of this method were described as follows: The first step was to select the primary sampling unit (PSU) from the systematically selected PSU for each district/city according to the domain location. In the second stage, from the selected PSU, 2 census blocks were selected by probability proportional to size with the number of households in the 2010 Population Census. Then one block was randomly selected for Risksdas and one census block for Susenas. In the third stage, from each census block of Risksdas, several census buildings were selected systematically based on the 2010 Population Census building data.

The population and sample in this paper were the households having children (0-59 months) in all Indonesian regions. The samples analyzed were 78,000 respondents. The variables in this article were the maternal characteristics including age, education, common mental disorder; child characteristics include age, gender, health status (the records of ARI and diarrhea); family economic status.

The status of child health was seen based on the disease history experienced by the child. Acute respiratory infection history in this study was measured by the interview result done to mother and children about whether their children have been diagnosed with ARI in the past month and or they have suffered fever and cough with phlegm, dry cough, or flu in the past month before the interview session. A child’s history of diarrhea was defined based on the health workers’ diagnose and or the symptom experienced by the child such as defecate for more than 3 times a day in the last 2 weeks before the survey.

Emotional mental disorder status was the condition that indicated an individual experiencing a psychological change that can recover as before or become more serious problems if it was not overcome. In this study, it was measured by the Self Reporting
Questionnaire (SRQ) consist of 20 questions. It has answer options of “yes” and “no” and scored 1 and 0. It measures some symptoms of depression obtained by showing the higher levels of emotional mental disorders. In this study, the cut-off value of 7 is used, if the subject has a value of at least 7, meaning that it is indicated experiencing mental-emotional disorders [11].

The descriptive statistics for all the variables were calculated. Bivariate analysis was done to analyze the relationship between maternal CMD and child illness. Logistic regression analysis was done to determine the relationship between maternal CMD and maternal characteristics. Processing data using the help of SPSS v. 21 software.

The 2013 Riskesdas has an ethical permit approved by the national ethical committee (ethic number: 01.1206.207). During data collection, informed consent was used. This is by considering the aspects of procedures for data collection, voluntary, and confidentiality.

3 Results and Discussion

3.1. Results

Table 1 shows the prevalence of ARI, diarrhea, and pneumonia suffered by the children, the mental health problem experienced by the mother, also describes the distribution from other variables.

<table>
<thead>
<tr>
<th>Variables</th>
<th>N=78,000 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dependent variables</strong></td>
<td></td>
</tr>
<tr>
<td>ARI (symptom and diagnosis)</td>
<td>31,646 (40.6)</td>
</tr>
<tr>
<td>Diarrhea (symptom and diagnosis)</td>
<td>9,296 (11.9)</td>
</tr>
<tr>
<td><strong>Independent variables</strong></td>
<td></td>
</tr>
<tr>
<td>Maternal characteristics</td>
<td></td>
</tr>
<tr>
<td>CMD, mean ±SD,</td>
<td>1.2 ± 2.36</td>
</tr>
<tr>
<td>High CMD (≥ 7)</td>
<td>3,589 (4.6)</td>
</tr>
<tr>
<td>Low CMD (&lt; 7)</td>
<td>74,411 (95.4)</td>
</tr>
<tr>
<td>Mother’s age, year (mean ±SD)</td>
<td>31.3 ± 6.32</td>
</tr>
<tr>
<td>&lt; 16 years</td>
<td>107 (0.1)</td>
</tr>
<tr>
<td>16 – 25 years</td>
<td>19,280 (24.7)</td>
</tr>
<tr>
<td>26 – 35 years</td>
<td>42,585 (54.6)</td>
</tr>
<tr>
<td>36 -45 years</td>
<td>15,297 (19.6)</td>
</tr>
<tr>
<td>&gt; 45 years</td>
<td>731 (0.9)</td>
</tr>
<tr>
<td>Mother education, N (%)</td>
<td></td>
</tr>
<tr>
<td>No education</td>
<td>7,593 (9.7)</td>
</tr>
<tr>
<td>Elementary school</td>
<td>22,218 (28.5)</td>
</tr>
<tr>
<td>Junior high school</td>
<td>19,202 (24.6)</td>
</tr>
<tr>
<td>Senior high school</td>
<td>22,614 (29.0)</td>
</tr>
<tr>
<td>Diploma or above</td>
<td>6,373 (8.2)</td>
</tr>
<tr>
<td>Family economic status</td>
<td></td>
</tr>
<tr>
<td>Quintile 1</td>
<td>11,696 (15.0)</td>
</tr>
</tbody>
</table>

As stated in Table 1 above, the frequency of children suffering ARI is 40.6%, diarrhea is 11.9%, and pneumonia is 4%. The prevalence of mothers with a high mental health problem is 4.6%. Most of the mother is in a safe reproductive age which is 26-35 years old and there is almost 1% mother ages 45 years old. The percentage of mothers' education is almost the same among those who have completed primary school, graduated from junior high school, and graduated from senior high school. The percentage of middle and upper economic status is 25% and the lowest percentage is in the lowest quintile of 15%. The proportion of children who were the subjects of the study was almost half the age between 3-5 years and the number of boys and girls was almost the same.

The prevalence of a child’s illness history based on the maternal CMD condition can be seen in Figure 1. If we see from the comparison between children with low CMD mothers, then children with high CMD mothers have a higher proportion of child’s illness in all diseases which are ARI, diarrhea, and pneumonia.
Table 2. Relationship of maternal and child characteristics according to ARI

<table>
<thead>
<tr>
<th>Maternal and child characteristics (N=78,000)</th>
<th>ARI</th>
<th>Prevalence N (%)</th>
<th>OR (95% CI)&lt;sup&gt;a&lt;/sup&gt;</th>
<th>OR (95% CI)&lt;sup&gt;b&lt;/sup&gt; adjusted</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Maternal CMD</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High CMD (≥ 7) (n=3,589)</td>
<td>2,120 (59.1)</td>
<td>2.08 (1.94-2.24)*</td>
<td>2.12 (1.87-2.40)*</td>
<td></td>
</tr>
<tr>
<td>Low CMD (&lt; 7) (n=74,411) ref</td>
<td>29,526 (39.7)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Maternal age</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 16 years (n=107)</td>
<td>49 (45.8)</td>
<td>1.25 (0.68-2.31)</td>
<td>1.41 (0.75-2.67)</td>
<td></td>
</tr>
<tr>
<td>16–25 years (n=19,280)</td>
<td>8,420 (43.7)</td>
<td>1.18 (1.12-1.25)*</td>
<td>1.30 (1.04-1.62)*</td>
<td></td>
</tr>
<tr>
<td>26–35 years (n=42,585)</td>
<td>17,039 (40.0)</td>
<td>0.95 (0.91-0.99)*</td>
<td>1.14 (0.92-1.42)</td>
<td></td>
</tr>
<tr>
<td>36–45 years (n=15,297)</td>
<td>5,860 (38.3)</td>
<td>0.89 (0.85-0.94)*</td>
<td>1.04 (0.83-1.30)</td>
<td></td>
</tr>
<tr>
<td>&gt; 45 years (n=731)</td>
<td>277 (37.9)</td>
<td>0.89 (0.72-1.11)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Maternal education</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No education (n=7,593)</td>
<td>3,303 (43.5)</td>
<td>1.14 (1.06-1.23)*</td>
<td>1.35 (1.21-1.51)*</td>
<td></td>
</tr>
<tr>
<td>Primary school (n=22,218)</td>
<td>9,447 (42.5)</td>
<td>1.12 (1.06-1.18)*</td>
<td>1.31 (1.19-1.44)*</td>
<td></td>
</tr>
<tr>
<td>Junior high school (n=19,202)</td>
<td>7,969 (41.5)</td>
<td>1.05 (0.99-1.11)</td>
<td>1.24 (1.13-1.37)*</td>
<td></td>
</tr>
<tr>
<td>Senior high school (n=22,613)</td>
<td>8,797 (38.9)</td>
<td>0.91 (0.86-0.96)*</td>
<td>1.17 (1.07-1.28)*</td>
<td></td>
</tr>
<tr>
<td>Diploma or higher (n=6,373) ref</td>
<td>2,230 (35.0)</td>
<td>0.72 (0.66-0.78)*</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Family economic status</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quintile 1 (n=11,696)</td>
<td>5,013 (42.9)</td>
<td>1.12 (1.05-1.19)*</td>
<td>1.14 (1.05-1.24)*</td>
<td></td>
</tr>
<tr>
<td>Quintile 2 (n=14,022)</td>
<td>5,940 (42.4)</td>
<td>1.09 (1.03-1.16)*</td>
<td>1.15 (1.06-1.24)*</td>
<td></td>
</tr>
<tr>
<td>Quintile 3 (n=16,678)</td>
<td>6,947 (41.7)</td>
<td>1.06 (1.00-1.12)*</td>
<td>1.13 (1.05-1.22)*</td>
<td></td>
</tr>
<tr>
<td>Quintile 4 (n=19,558)</td>
<td>7,935 (40.6)</td>
<td>1.00 (0.95-1.06)</td>
<td>1.13 (1.05-1.21)*</td>
<td></td>
</tr>
<tr>
<td>Quintile 5 (n=16,046) ref</td>
<td>5,811 (36.2)</td>
<td>0.79 (0.75-0.84)*</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Child’s age</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 1 month (n=1,176)</td>
<td>43 (3.7)</td>
<td>0.05 (0.04-0.08)*</td>
<td>0.06 (0.04-0.08)*</td>
<td></td>
</tr>
<tr>
<td>1–11 months (n=13,820)</td>
<td>5,232 (37.9)</td>
<td>0.87 (0.82-0.92)*</td>
<td>0.92 (0.6-0.98)*</td>
<td></td>
</tr>
<tr>
<td>12–23 months (n=15,507)</td>
<td>7,013 (45.2)</td>
<td>1.27 (1.20-1.34)*</td>
<td>1.24 (1.17-1.32)*</td>
<td></td>
</tr>
<tr>
<td>24–35 months (n=15,065)</td>
<td>6,536 (43.4)</td>
<td>1.15 (1.09-1.22)*</td>
<td>1.16 (1.10-1.23)*</td>
<td></td>
</tr>
<tr>
<td>&gt; 35 months (n=32,432) ref</td>
<td>12,823 (39.5)</td>
<td>0.93 (0.89-0.97)*</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male (n=39,559)</td>
<td>16,313 (41.2)</td>
<td>1.06 (1.01-1.10)*</td>
<td>1.06 (1.02-1.11)*</td>
<td></td>
</tr>
<tr>
<td>Female (n=38,440)</td>
<td>15,333 (39.9)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* OR before calculating other variables with logistic regression tests, * there is a significant difference compared to references

* OR after calculating other variables with multiple logistic regression tests, * there are significant differences compared to references

The result of the logistic regression analysis in Table 2 shows the relationship between mother and children with ARI. Mother with high CMD has a higher risk of children with ARI.
compared with those mothers with low CMD. After adjusted other variables, the result is same
(OR adjusted= 2.12; 9.5% CI: 1.87-2.40). If considering the maternal age, the analysis result
shows that maternal age that has a risk of children with ARI is 16-25 years old compared to
those who are older (OR adjusted=1.30; 95% CI: 1.04-1.64). Maternal education also has a
correlation to the risk of children with ARI. The lower the education the mother has, the bigger
the risk they have. A similar condition is also shown in the variable of family economic status.
The low quintile has the risk of children with ARI compared with the high quintile.

Based on the analysis result in Table 3, it can be stated that CMD experienced by mothers
is strongly related to diarrhea suffered by children. If it is compared to mothers with low CMD,
then children with high CMD mothers have a higher risk of 2.46% (95% CI: 2.03-2.74). Maternal education
is related to the risk of having children with diarrhea. If it is compared to a
mother who graduated with a diploma 1 or higher, then a mother with no education gets a higher
risk of having children with diarrhea history (OR adjusted=1.75; 95% CI: 1.48-2.08). A similar
risk also occurred in the variable of family economic status. The lower the status, the higher the
risk of children suffer diarrhea. The result of the analysis of the children’s age states that children
aged 12-23 months have the highest risk to suffer diarrhea compared with children aged more
than 35 months (OR adjusted= 1.87; 95% CI: 1.72-2.04).

Table 3. Relationship of maternal and children characteristics based on diarrhea

<table>
<thead>
<tr>
<th>Maternal and children characteristics (N=78,000)</th>
<th>Diarrhea</th>
<th>Prevalence N (%)</th>
<th>OR (95% CI)</th>
<th>OR (95% CI) a adjusted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maternal CMD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High CMD (≥ 7) (n=3,589)</td>
<td>864 (24.1)</td>
<td>2.48 (2.14-2.87)*</td>
<td>2.36 (2.03-2.74)*</td>
<td></td>
</tr>
<tr>
<td>Low CMD (&lt; 7) (n=74,411) ref</td>
<td>8,433 (11.3)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maternal age</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 16 years (n=107)</td>
<td>20 (18.7)</td>
<td>1.73 (0.64-4.68)</td>
<td>1.38 (0.51-3.76)</td>
<td></td>
</tr>
<tr>
<td>16 – 25 years (n=19,280)</td>
<td>2,804 (14.5)</td>
<td>1.37 (1.27-1.48)*</td>
<td>1.18 (0.84-1.65)*</td>
<td></td>
</tr>
<tr>
<td>26 – 35 years (n=42,585)</td>
<td>4,838 (11.4)</td>
<td>0.89 (0.83-0.95)*</td>
<td>0.96 (0.69-1.34)*</td>
<td></td>
</tr>
<tr>
<td>36 - 45 years (n=1,297)</td>
<td>1,548 (10.1)</td>
<td>0.80 (0.74-0.86)*</td>
<td>0.83 (0.60-1.16)*</td>
<td></td>
</tr>
<tr>
<td>&gt; 45 years (n=731)</td>
<td>87 (11.9)</td>
<td>0.99 (0.72-1.38)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maternal education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No education (n=7,593)</td>
<td>1,128 (14.9)</td>
<td>1.33 (1.21-1.47)*</td>
<td>1.75 (1.48-2.08)*</td>
<td></td>
</tr>
<tr>
<td>Primary school (n=22,218)</td>
<td>2,986 (13.4)</td>
<td>1.22 (1.13-1.31)*</td>
<td>1.61 (1.38-1.88)*</td>
<td></td>
</tr>
<tr>
<td>Junior high school (n=19,202)</td>
<td>2,452 (12.8)</td>
<td>1.11 (1.03-1.20)*</td>
<td>1.53 (1.31-1.79)*</td>
<td></td>
</tr>
<tr>
<td>Senior high school (n=22,613)</td>
<td>2,256 (10.0)</td>
<td>0.76 (0.70-0.83)*</td>
<td>1.25 (1.07-1.45)*</td>
<td></td>
</tr>
<tr>
<td>Diploma or higher (n=6,373) ref</td>
<td>475 (7.5)</td>
<td>0.57 (0.50-0.66)*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family economic status</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quintile 1 (n=11,696)</td>
<td>1,871 (16.0)</td>
<td>1.51 (1.38-1.65)*</td>
<td>1.55 (1.43-1.68)*</td>
<td></td>
</tr>
<tr>
<td>Quintile 2 (n=14,022)</td>
<td>1,713 (12.2)</td>
<td>1.04 (0.95-1.13)*</td>
<td>1.23 (1.13-1.33)*</td>
<td></td>
</tr>
<tr>
<td>Quintile 3 (n=16,678)</td>
<td>2,088 (12.5)</td>
<td>1.07 (0.99-1.17)*</td>
<td>1.20 (1.11-1.30)*</td>
<td></td>
</tr>
<tr>
<td>Quintile 4 (n=19,558)</td>
<td>2,108 (10.8)</td>
<td>0.86 (0.79-0.94)*</td>
<td>1.11 (1.03-1.20)*</td>
<td></td>
</tr>
<tr>
<td>Quintile 5 (n=16,046) ref</td>
<td>1,515 (9.4)</td>
<td>0.73 (0.66-0.80)*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Maternal and children characteristics (N=78,000)

### Diarrhea

<table>
<thead>
<tr>
<th>Factors</th>
<th>Prevalence N (%)</th>
<th>OR (95% CI) a</th>
<th>OR (95% CI) b adjusted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child’s age</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 1 month (n=1,176)</td>
<td>25 (2.1)</td>
<td>0.16 (0.09-0.30)*</td>
<td>0.21 (0.12-0.38)*</td>
</tr>
<tr>
<td>1 – 11 months (n=13,820)</td>
<td>1,641 (11.9)</td>
<td>0.99 (0.91-1.09)</td>
<td>1.28 (1.16-1.42)*</td>
</tr>
<tr>
<td>12 – 23 months (n=15,507)</td>
<td>2,572 (16.6)</td>
<td>1.65 (1.53-1.78)*</td>
<td>1.87 (1.72-2.04)*</td>
</tr>
<tr>
<td>24 – 35 months (n=15,065)</td>
<td>1,990 (13.2)</td>
<td>1.16 (1.07-1.25)*</td>
<td>1.45 (1.33-1.58)*</td>
</tr>
<tr>
<td>&gt; 35 months (n=32,432) ref</td>
<td>3,068 (9.5)</td>
<td>0.66 (0.62-0.71)*</td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male (n=39,559)</td>
<td>4,960 (12.5)</td>
<td>1.13 (1.06-1.21)*</td>
<td>1.06 (1.06-1.21)*</td>
</tr>
<tr>
<td>Female (n=38,440) ref</td>
<td>4,336 (11.3)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a OR before calculating other variables with logistic regression tests, * there is a significant difference compared to references
b OR after calculating other variables with multiple logistic regression tests, * there are significant differences compared to references

The result of the analysis in Table 4 shows the relationship between maternal CMD and characteristics including age, education level, and family economic status. After controlling the variables of education and family economic status, maternal age is significantly related to the maternal CMD. Mother with the highest CMD risk is in 16–25 years (OR adjusted=1.98; 95% CI: 1.22-3.23) than 45-year-old mother. The maternal education level is also strongly related to CMD. The lower the education level, the higher the risk that the mother has. The higher risk that is experienced by uneducated mothers with OR adjusted is 3.96% (95% CI: 2.77-5.66) than the mother who graduated from Diploma 1 or higher. The variable of family economic status was not related significantly after considering the variables of age and education.

Table 4. Multiple logistic regression analysis between maternal CMD and maternal characteristics
3.2. Discussion

This study deliberates the relationship between maternal mental health and the history of the illness that children undergo. CMD in the mother is related significantly to the child’s illness. After controlling other variables, mothers with CMD have the risk to increase two times of ARI and diarrhea sick scene in children. This result is similar to the research done in Bangladesh and Vietnam stating that children with high maternal CMD have two times the risk of diarrhea compared with children from low CMD mothers [11]. Other meta-analysis results show that babies born to depressed mothers have a higher risk of experiencing diarrhea than babies from non-depressed mothers [13]. Research in Bangladesh concluded that the higher depressive score of mothers and food diffidence problems become the risk factors for diarrhea and respiratory infection in children under two years old [14].

The research on children and mothers who has high emotional status has a high risk of suffering sickness, affected by the household food variables [15]. Cohort research in Ethiopia stated that the symptoms of perinatal CMD increase the risk of diarrhea in infant two times higher than mother without CMD, especially in low-income countries happened during their first 2 months [16]. In this research, there is no correlation between perinatal CMD with ARI or fever after controlling other variables. This condition may happen because the risk of ARI is affected by air pollution, crowd, and maternal health attitude.

Maternal CMD is related to the risks of ARI in a toddler. The result in this research is different from the research done by Rahman et al. Maternal CMD is not related to ARI in infants based on the research done in Pakistan [17]. The different result is done in Nigeria [18]. The research result of the literature review stated that depression in mothers has bad effects on the child’s growth, development, attitude, and mental health [19]. Mothers with depressive symptoms have low self-efficacy ability to nurse children suffering from asthma, with several medical procedures. An article by Turney [20] stated that a depressive mother, especially recurrent or chronic depression, place children at adverse health risks when they are five years old after adjusted with mother and child demographic characteristics. Depressive mothers can contribute to the transmission of inequality between generations because poor child health can cause poor health and low economic status in adulthood.

The ability of a mother living in a developing country to give child care so that children can survive and have proper life has a bigger role than the condition in a developed country. This condition is influenced by the more vulnerable environment in a developing country. The problems of poor sanitation, crowd, food insecurity, and sub-optimal maternal care contributed to the higher risk in the child’s health [21].

Some literature has proved the correlation between depressions in mothers with child mental health problems and evidently, the maternal psychological condition also influenced child health. The depressive symptoms are prolonged fatigue, difficult concentration, lost interest in doing daily activities that give impact the maternal ability in nurturing and taking care of the children, remember and deal with health problems experienced by children, and comply with medical rules for children who are sick [20].

Maternal CMD is related to age and education. The result is in line with the previous research done in Bangladesh that the factors related to maternal CMD are age and education. Older age and lower education level is significantly related to the maternal CMD condition [22]. The mental health problems not only contributed to the biological factors but also related to the social-economic problems and factors from the environment [23].

The strength of this research is using large data. While the weaknesses are some variables may proceed as cofounder that is not analyzed. The CMD data and sickness child’s history are
taken based on maternal memory, so it may be biased. Another weakness is the method of collecting data using a cross-sectional method, it may not be able to determine the cause-and-effect relationship between maternal CMD and illness child history.

4 Conclusion

Maternal CMD is one of the factors related to the sick scene in children. Maternal CMD can increase the risk of ARI and diarrhea in toddlers. It is related to the maternal education level.

Acknowledgement

The author would like to thank the National Institute of Health Research and Development, Ministry of Health Republic of Indonesia for sharing data.

References


The Enforcement and Effectiveness of the Regional Regulation on Family Resilience in Indonesia in Reducing the Rate of Early Marriage

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Abstract. The rise of early marriages in Indonesia causes the role of the family to be less than ideal. The role of the Regional Government in implementing policies in building family resilience requires legal instruments, in the form of regional regulations and the Family Resilience Development Policy implemented in line with national policies. Local governments have the authority to make Regional Regulations on family resilience. This research aims to study the effectiveness of the Regional Regulation on Family Resilience in reducing the early marriage rate in Indonesia, strengthening family resilience, and overcoming family problems. This research employs an empirical and comparative approach—the data obtained from the literature study and by interviewing sources and experts. We will analyze each regulation's effectiveness in regulating early marriages and family resilience from the data collected. We would also compare the regulations, finding each strength, weakness, problems, and challenges using Friedman's theory on legal substance, legal structure, and legal culture. Regional regulation on Family Resilience is a great breakthrough for overcoming family problems and strengthening family resilience. Yet, it needs to compromise with legal cultures and legal structures surrounding it. Furthermore, regional regulation needs to be more comprehensive and cover local people's needs and wants. Finally, more studies and research on this issue need to be conducted soon.

Keywords: family resilience, early marriages, regional regulation

1 Introduction

Early marriages have been proven to impact the family quality. Suffice to say, early marriages rise in Indonesia proven to has a negative impact to the role of family. Based on 2018 data, early marriage is found in all parts of Indonesia. A total of 1,184,100 women aged 20-24 years have married by the age of 18. During the Covid-19 pandemic, the number of early marriages is increasing. In January-June 2020, 34,000 applications for early marriage dispensation (under 19 years) were submitted, 97% of which were granted. Even though throughout 2019, there were only 23,700 requests. The role of the Regional Government in implementing policies in building family resilience requires legal instruments, in the form of regional regulations and the Family Resilience Development Policy implemented in line with national policies. Local governments have the authority to make Regional Regulations on family resilience.
Hence, this research will discuss family resilience regulations in Banjarmasin, Banten, and Depok and its effects on reducing Indonesia's early marriage rate. This research also compares Banjarmasin, Banten, and Depok's regulations by using Lawrence Friedman's theory. This research aims to study the effectiveness of the Regional Regulation on Family Resilience in reducing the early marriage rate in Indonesia, strengthening family resilience, and overcoming family problems.

2 Method

This research employs an empirical and comparative approach—the data obtained from the literature study and by interviewing sources and experts. We will analyze each regulation's effectiveness in regulating early marriages and family resilience from the data collected. We also compare the regulations, finding each strength, weakness, problems, and challenges using Friedman's theory on legal substance, legal structure, and legal culture.

3 Results and Discussion

Family resilience is defined as the family's ability to ward off or protect themselves from various life problems or threats from within the family and outside the family, such as the environment, community, community, and country [1]. Based on the Act 52/2009 defining the family's resilience and well-being as the family's condition that has tenacity and toughness and contains the physical-material ability to live independently and develop themselves and their families to live harmoniously in improving the welfare of birth and mental happiness [2]. Thus, family resilience concerns an individual or family's ability to harness its potential to face life's challenges. The concept of family resilience and well-being includes the foundations of family legality and integrity, physical resilience, economic resilience, social resilience psychology, and socio-cultural resilience [3]. Based on this paper, we review the regulation about family resilience in three cities in Indonesia: Depok City, Banjarmasin City, and Banten Province.

3.1 Banjarmasin, South Kalimantan

The Banjarmasin City Government, along with the Banjarmasin DPRD, ratified the Draft Regional Regulation (Raperda) into a Regional Regulation (PERDA) on Family Resilience Development through Banjarmasin PERDA number 2 of 2018. The Mayor of Banjarmasin, H Ibnu Sina, stated that this regulation was made to prevent domestic violence, both against women and children. This regulation is also made to give responsibility to the local government and the community, and parents to foster welfare and protect the family. According to religion and the state's guidance, this regulation serves as a motivation to build good family resilience. Therefore, this PERDA does not contain sanctions for the violators. This PERDA is also intended to reduce the number of marriages in Banjarmasin.

Based on BPS data (2008), the number of first marriages performed under 16 is 11.23% [4]. Early marriage in South Kalimantan as a whole reached 48.4 percent or far above the national average, which was only 4.8% of the total 60 million marriages in 2010. South Kalimantan Province was ranked first, with the criteria for the age of 10-14 years. 5.7% and
around 46% aged 15-19 years in 2018. Banjarmasin ranks second highest in early marriages in 2017, with 38 cases filing marriage dispensation.

In 2017, based on data prepared by the Pengadilan Agama Kelas 1A Banjarmasin 2017, 2361 cases went to court, with 1731 lawsuits and 630 petition cases. Of these cases, 39 cases were requests for dispensation of marriage. The number of petition cases decided in 2017 was 630 cases, which brought the percentage of dispensation to marriage is 6.19% [5]. Meanwhile, in 2019, the number of cases decided by the Pengadilan Agama Kelas 1A Banjarmasin 2019 was 2207, covering 1607 lawsuits and 600 petition cases. Of these cases, 85 cases were applications for dispensation of marriage. There were 600 petition cases decided in 2019, which brings the percentage of dispensation to marriage to 0.005% [6].

Using Lawrence Friedman's theory, the legal structure in Banjarmasin is not well enforced, where the local government has no institution to support the regulations. The local governments do not have any program to implement the Regional Regulation further, too. PKK mothers do the socialization process more than local governments. The women's agency also wants more in-depth socialization about early marriage but is limited by inadequate budgetary funds and human resources [6]. But based on the data shown above, the existence of the PERDA on family resilience in 2018 has a reduced impact on marriage dispensation. As in the legal culture, there's quite a clash between the social norm and the regulation. Society believes that it's better to be a widow multiple times rather than being an old virgin lady. Early marriage is considered as a solution to juvenile delinquency. Hence the rate is high in Banjarmasin.

3.2 Banten

The Family Resilience Regulation in Banten was promulgated in October 2018. Chairman of Commission V Banten DPRD, Fitron Nur Ikhsan in his report said, the objectives of the formation of the Regional Regulation on Family Resilience include realizing the quality of families that have balanced mental, physical and material strength, synchronizing family development from various sectors, increasing religious values, structuring families, restrain divorce, improve the economic quality and social resilience of families, improve the quality of children and adolescents through access to information and increase the role and function of families and family protection. This regional regulation also contains the Banten Provincial Government's efforts to provide assistance and facilitation for underprivileged families and reduce poverty.

Related to family resilience, it is known that Banten is one of the provinces with the highest child marriage rate. Child marriage is prone to household problems. Therefore, these child marriage practices could lead to many problems. Based on data, in Banten, around 3 million people living in Banten in 2018 are aged 10 to 24 years or are in the youth group. However, with that number, the age of early marriage is still high. Even Banten occupies the fourth rank out of 34 provinces in Indonesia for early marriage. DPR RI Commission IX member Yayat R Bairo spoke up. Yayat said the high practice of early marriage in Banten is triggered by many factors, one of which is cultural issues. It is a common thing to get married early in Banten. There is a local saying that "Perempuan Jangan sampai jadi perawan tua".

In correlation to the regulation, it accommodates the advocacy of the importance of family resilience. The regulation accommodates cooperation with other elements, such as other provinces, Regency/City Government, Foundation, College or University or College, Research Institute, government agencies in the regions, Cooperatives and Business Entities in legal for, Institutions established by the Government or Provincial and Regency/City Government,
Community organizations in charge of family resilience or observers of women and child issues; and/or Student organizations.

3.3 Depok City, West Java

The Family Resilience Regional Regulation in Depok is the first Regional Regulation in Indonesia that regulates family resilience. The regulation is Depok Government Regulation Number 9 Year. Member of Depok City Parliament, Farida Rachmayanti, said that this Regional Regulation is a follow-up to the 2016 - 2021 regional flagship program, namely Depok *Kota Ramah Keluarga* (Family Friendly City). The purpose of the establishment of this Regional Regulation to realize the quality of the family in meeting the physical needs of spiritual materials and mental in a balanced manner to carry out the function of the family optimally towards the prosperous family born and inner, as well as harmonization and synchronization of family resilience development efforts organized by the City Government, the community, and the business world [8]. In other words, this regulation is intended to form a prosperous family, quality family, harmonious family because Depok family resilience is a reference for Family Resilience Development and Development in Depok City.

Based on the theory from Lawrence M. Friedman, the legal structure of this regulation is the institutional implementation of family resilience, consisting of Tim Pembina Ketahanan Keluarga, Tenaga lapangan Ketahanan Keluarga, Motivator Ketahanan Keluarga (Montekar), Pendamping Kader Posyandu (PKP), Tenaga Penggerak Kelurahan (TPKel), RW Ramah Anak (is part of the Kota Layak Anak Depok program technically implemented by the Gugus Tugas Kota Layak Anak Depok working closely with Forum Kota Layak Anak coordinated village level).

Legal substance or the output of this regulation is the absence of policies that support Depok facing demographic bonuses such as pre-wedding mentoring, family harmony development, education and childcare, women's empowerment for the improvement of the family economy, institutional family resilience, special family protection, coaching, supervision and control, and strategic partnerships of family resilience, Tribina keluarga, Usaha Peningkatan Pendapatan Keluarga Sejahtera (UPPKS), Pusat Informasi Konseling Remaja (PIK-R) dan RW Ramah Anak. According to the Religious Court (PA) Depok city, from the beginning of January to June 2020, there were 568 married couples (pasutri) divorced, while in the period 2019, there were 3,664 cases of divorce.

Based on this regulation's legal culture adheres to the religious values and sublime culture of the nation. Regarding the cultural value in Depok city society, especially after implementing this Regulation, the community becomes aware of the importance of harmonious families through programs implemented in Depok. But law enforcement agencies are not regulated by these regulations. There are only administrative sanctions.

4 Conclusion

Based on the research results, the regional regulations (Perda) about Family Resilience is an outstanding breakthrough for overcoming family problems and strengthening family resilience. However, it is necessary to compromise with the legal culture and legal structure that surrounds it. Also, the substance of local regulations needs to be more comprehensive and cover local communities’ needs and wants. In other words, the existence of regional regulations
(Perda) regarding family resilience in Banjarmasin, Depok, and Banten is a sign that family resilience is an urgent matter to be regulated because it relates to the human resources of this nation, especially this regional regulation to discuss early marriage rates. So, to enforce this regulation, synergy and collaboration from various kinds of stakeholders are needed, starting from local governments, non-governmental organizations that are concerned about the resilience of families and also communities.

Acknowledgment

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References

The Differences Between Virtual and Video Counseling Towards Knowledge and Satisfaction of Mothers: A Comparative Study

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Abstract. The COVID-19 pandemic poses an authentic challenge health system in the world. Current demands for health services make health workers have to modify health services, especially in providing education in the event of a pandemic. The appropriateness of using the media will determine the increase in knowledge and client satisfaction. Objective: The Purpose of study was comparing the effectiveness of using virtual meeting and the use videos counseling in social media groups. Method: This study used a quasi-experimental design with a pre-test and post-test control group design approach. The population in this study was toddlers’ mothers. Collecting data using e-form. This study finding increased knowledge of groups that were provided with counseling used virtual meeting method and groups that used counseling videos on group social media. Result: There were differences in service satisfaction by using virtual media meeting and counseling videos in social media groups, especially in the media used (p-value: 0.000). There was significantly increased target knowledge that received counseling with virtual meetings (p-value: 0.005, CI: -29.602 – (-6.097)) and video counseling in group social media (p-value: 0.000, CI: -10.081– (-9.017)). Conclusion: Extension based on virtual meeting is considered as a more effective media compared to the use of video extension in social media groups.

Keywords: Online counseling; virtual meetings; video counseling; toddler class

1 Introduction

An emerging global pandemic and wreak havoc on vulnerable world's population. Currently the acute respiratory outbreak is related to the coronavirus. This disease, called coronavirus 19 (COVID-19), is the third documenting animal-to-human coronavirus spills caused major epidemics in the last 2 decades [1]. Corona Virus Disease 2019 is a type of disease caused by infection with the Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-COV-2) [2].

The world order is currently being faced with various changes as a result of the coronavirus outbreak. The spread of the corona virus has had a significant impact in various fields [3]. Following up on Government policies and to maintain the continuity of the world of education can continue to run well and support the Government in supporting physical distancing in the midst of the Covid-19 epidemic according to the president's instructions to stay at home, study at home, work at home, worship at home, Minister Education and Culture issued Circular
Number 3 of 2020 on the Education Unit and Number 36962/ MPK.A / HK / 2020 concerning the Implementation of Education in the Coronavirus Disease (Covid-19). Emergency Period so learning activities are carried out online in order to prevent the spread of coronavirus disease (Covid-19). Various efforts are being made by the government at this time to break the chain the spread of the virus is lockdown, social distancing, regional caret tern, but cannot be implemented optimally [4].

The Covid-19 era has forced the bureaucracy to optimize the use of technology, information and communication in all matters in the government sector. Due to limited space due to following health protocols, the public is still given the right as citizens to be served through electronic services. The transformation of the manual service model marked by face-to-face services to electronics continues to experience a significant increase during the Covid-19 period. The functions of various technology applications are optimized to provide services to the community [5]. One form of technology application communication and information is the application of e-Health includes all functions that affect health sector. E-Health does not only cover on tools whose application is internet based, but all network information health, electronic health records, services telemedicine, a personal communication system wearable and portable, health portals and many other technologies and information which is based on helpful tools prevention, diagnosis, treatment, death health, and lifestyle management [6].

Various attempts were made by innovators to get it introduce an innovation to others. To can be accepted and applied by many people, then innovators must be able to identify a variety needs those others need. An innovation must be able to show various advantages and the benefits that exist in innovation. It should be an innovation has more advantages and benefits much in comparison to circumstances and conditions previous. The application of an innovation is expected improve the conditions and needs of others to be better than the previous condition. In addition, an innovation can be adopted by society absolutely must be able to be spread by communicate to the wider community with various ways [7]. In choosing the right digital counseling channel for patients, the counselor must provide an effective channel and not reduce the benefits of the counseling carried out. In this study, researchers compared two types of digital extension methods, namely by using virtual meeting channels and broadcasting information videos that were followed by discussions in social media groups. This study evaluation by looking at the increase in knowledge and satisfaction of patients who attend the counseling.

2 Method

This study used a comparative quantitative design with a quasi-experimental design (pre-experimental design) in two groups who were given different interventions. The populations in this study were mothers who had children aged under five who attended the toddler class in Ambokembang Village, Kedungwuni District, Pekalongan Regency. The sample was divided into two groups, namely the group that was given education about toddler nutrition virtually (group 1) and the group that was given education video on nutrition for toddlers who shared through social media groups followed by discussions in that group (group 2). Evaluation of the influence of the intervention was carried out (follow-up) by looking at differences in client knowledge and satisfaction in following online counseling that had been followed. The sampling technique used in this research is systematic random sampling with the criteria of mothers under five who are registered in the toddler class in the village activities and participate
in activities full time. The sample size in this study was 36. However, 4 respondents in the intervention group were excluded because they did not participate full time. So that the total sample size is 32 respondents, 16 for the intervention group and 16 for the control group.

Collecting data used electronic questionnaires, in the form of a questionnaire about nutrition knowledge of toddlers and counseling of satisfaction service extension. These two questionnaires were used to assess the effect of the two treatments in the form of online counseling with different systems applied to clients. To measure the quality of services provided as a substitute for toddler class activities that have been routinely implemented. The questionnaire used is a questionnaire that has been tested for validity in previous studies for the knowledge questionnaire, which consists of 15 question items. The satisfaction questionnaire uses a Likert scale with 6 items of evaluation of implementation activities.

Data collection was carried out before the event began for the pre-test and after the question-and-answer discussion session related to the topic of extension material was carried out for the post test. E form data analysis was carried out using stata version 14. Statistical testing used t-test for numerical data and fisher exact test categorical data to test the effectiveness of differences in increased knowledge and differences in client satisfaction in two types of online counseling services applied to clients with degrees of significance 95%.

3 Results and Discussion

3.1 Results

The results of the study of 32 respondents who attended the toddler class for 3 months in a row in two different groups are shown in the table below. Table 1 discusses the characteristics of mothers and toddlers they have.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Intervention</th>
<th>Control</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td><strong>Mother Background Education</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower secondary education</td>
<td>2</td>
<td>12.5</td>
<td>4</td>
</tr>
<tr>
<td>Upper secondary education</td>
<td>14</td>
<td>87.5</td>
<td>12</td>
</tr>
<tr>
<td><strong>Mother’s Work Status</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Workers</td>
<td>8</td>
<td>50</td>
<td>10</td>
</tr>
<tr>
<td>Housewife</td>
<td>8</td>
<td>50</td>
<td>6</td>
</tr>
</tbody>
</table>

In Table 1, it can be seen that most of the mothers who have children with high school education are both senior high school and tertiary education. This is the strength of researchers in conducting virtual education which requires the ability of mothers to operate gadgets. While half of the mothers are housewives and some are working mothers. This shows the same opportunity to get health education during a pandemic. The condition of the working mother does not reflect the difficulties of the mother in taking virtual classes.

Table 2 shown the analysis of mothers’ knowledge about toddler nutrition before and after health education was carried out through virtual meetings and through video counseling.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Intervention</th>
<th>Control</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
</tbody>
</table>

Table 2. Analysis of mothers’ knowledge before and after attending virtual meetings and video counseling in social media groups
Table 2 shown a significant increase in knowledge both in the group that was given health education about toddler nutrition using the virtual meeting method (p-value: 0.005; CI: -29.602 – (-6.097)) and in the group that was given video counseling in the social media group (p-value: 0.000; CI: -10.081 -(-9.017)).

Table 3 shown there is no difference in knowledge difference between before and after getting health education in the group with the virtual meeting method or video counseling (p-value: 0.158; CI: -19.602 – 3.507).

Table 4 describes the level of satisfaction of mothers who participated in toddler class activities with two different methods, one group used virtual meetings and the next group used video counseling which was shared with social media groups.

Table 4 shown that the group who received counseling through the virtual meeting had higher satisfaction compared to the group who used video counseling even though the value was not statistically significant (p-value: 0.236).

3.2 Discussion

The results showed that there was an increase in knowledge in the two groups who took online counseling classes even though they used different methods. While the test results are significant differences in knowledge between the group that received counseling with virtual meetings (p-value: 0.005, CI: -29.602 – (-6.097)) and video counseling in group social media (p-value: 0.000, CI: -10.081 -(-9.017)). The use of technology can be a facility in increasing client knowledge with various media choices available in the era of the industrial revolution 4.0. Remote communication technologies are increasingly regarded as potential effective options to support health care interventions. Among them, telemedicine, virtual reality, augmented reality, and serious games could be in the forefront of these efforts [8]. The previous research state that online counseling continues to develop, in this case defined as the interaction process is not
synchronous and asynchronous using chat media, e-mail, and video conferencing via the internet [9]. Synchronous process is the provision of counseling services through online activities concurrently which can be implemented via video call or text chat. Meanwhile, the asynchronous process is the process of providing services or counseling communication whose activities do not occur at the moment (do not occur in a direct) such as when sending messages [10].

However, by looking at the mean difference between the two groups, the group that received counseling with virtual meetings was higher, so it can be concluded that the use of counseling services with virtual meetings can increase the value of client knowledge higher than video counseling. This is possible because the use of virtual meetings, clients can meet face to face with the counselor and directly ask the things that are needed directly through verbal and listen to answers from the counselor directly. Another case with counseling through videos and discussions in social media groups, clients cannot respond directly to every response given by the counselor verbally, so it takes a long time to get a response.

In terms of satisfaction, there is no significant difference between the satisfaction of mothers who get counseling through virtual meetings and through video counseling (p-value: 0.236). But in the analysis of each aspect, namely the use of media in the two groups, it was found that the use of virtual meetings was more effective in delivering counseling (p-value: 0.000). The review studies reported high levels of patient satisfaction with telegenetics, and patients were generally more receptive to telegenetics than the genetics practitioners [11]. Patients’ satisfaction ratings with telemedicine visits remained unchanged despite the rapid uptake of telemedicine by virtually inexperienced providers (pre-COVID: n = 847, mean satisfaction = 4.38/5; post-COVID: n = 1693, mean satisfaction = 4.38/5) [12]. Other research results reveal that there are 4 problem factors in taking online classes during the COVID-19 pandemic, namely: 1) Facilities and technology, 2) Educators and teaching methods, 3) Personal 4) Family and other factors such as boredom and feelings which is not happy about the learning process that is being undertaken [13].

4 Conclusion

Both counseling methods increase mother's knowledge, but there is no significant difference in the value of mother's knowledge between virtual meeting method and video counseling. There is no difference in maternal satisfaction with the use of the two counseling methods, but the aspect of using virtual media is more satisfying to mothers. The use of virtual meetings in providing health education is recommended.

Acknowledgement

The author thanks the research institute and community service at the University of Muhammadiyah Pekajangan Pekalongan which has provided material and moral support in conducting research.
References


The Role of Religiosity to Purchase Decision of Halal Cosmetics in Youth

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Abstract. In Islam, halal refers to what is allowed, while haram refers to what is forbidden. The word halal is frequently connected with food. However, this phrase encompasses more than just food. This is also true when it comes to cosmetics. This study is going to investigate the effect of religiosity on purchase decision of halal cosmetics in youth. The method used for this research is quantitative. The analytical tool used in SmartPLS 3.2.0. The sample in this research amounted to 100 respondents from 3 faculties in UMPP. The result of this research indicates that religiosity affects purchase decisions. Even though religiosity affects purchase decision but youth does not matter about the halalness of the cosmetics they buy due to the understanding that halal is only something that is eaten. It implies that young consumers of halal cosmetics do not tend to the halalness of the product. The government is expected to be increasingly concerned with the number of the circulation of cosmetic products, considering that Indonesia is the country with the largest Muslim population in the world, tightening halal products by issuing a mandatory halal logo on its products.

Keywords: Religiosity, purchase decision, halal cosmetics

1 Introduction

Halal refers to what is permissible, whereas haram refers to what is forbidden in Islam. Halal and haram laws are a part of Islam's overall legal system. When it comes to food, the phrase halal is assumed. However, this phrase has a broader meaning than just food [1]. Halal concerns all aspects of human life such as income, someone’s attitude towards products, and religiosity [2]. The demand for halal products is not only for food but also for cosmetics [3]. Halal medicines and cosmetics have attained increasing awareness and demand of 2.4 billion Muslim consumers around the world. The global halal market is ready for expansion with a combined growth rate of 6.8% until 2024 [4]. Pigs, corpses, blood, human body parts, predators, reptiles, and insects are prohibited from being used in halal cosmetics. The cosmetic ingredients come from animals that must be slaughtered in accordance with Islamic law in order to be declared halal [1]. The halal cosmetic items must be labeled halal in accordance with the established label criteria. To aid consumers in making a decision and ingesting the food, the label must include a halal mark and accurately depict the product's components. Cosmetics products that have been registered their products to get the halal certificates in Indonesia are as seen in Table 1 below.
Table 1. Cosmetics Halal in Indonesia

<table>
<thead>
<tr>
<th>No</th>
<th>Brand</th>
<th>Halal Labeled</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Wardah</td>
<td>1998</td>
</tr>
<tr>
<td>2</td>
<td>Sariayu</td>
<td>2012</td>
</tr>
<tr>
<td>3</td>
<td>Zoya</td>
<td>2013</td>
</tr>
<tr>
<td>4</td>
<td>Forest Secret</td>
<td>2014</td>
</tr>
<tr>
<td>5</td>
<td>BLP Beauty</td>
<td>2016</td>
</tr>
<tr>
<td>6</td>
<td>ESQA</td>
<td>2018</td>
</tr>
<tr>
<td>7</td>
<td>Amara</td>
<td>2018</td>
</tr>
<tr>
<td>8</td>
<td>L'Oreal</td>
<td>2018</td>
</tr>
<tr>
<td>9</td>
<td>Beauty Story</td>
<td>2018</td>
</tr>
<tr>
<td>10</td>
<td>Make Over</td>
<td>2018</td>
</tr>
<tr>
<td>11</td>
<td>Silky Girl</td>
<td>2018</td>
</tr>
<tr>
<td>12</td>
<td>Safi</td>
<td>2018</td>
</tr>
<tr>
<td>13</td>
<td>Olive Natural Skincare</td>
<td>2018</td>
</tr>
</tbody>
</table>

The halalness of these products is the right thing because it is related to Muslim worship and prayers. Consumers are expected to be provided with information about the halalness of the product, which if not done adequately will create bad satisfaction [5]. The halal label can give consumers with information and foster a sense of confidence. The purpose of the halal label on a product is to inform Muslim consumers who utilize halal products that the product is safe and can be trusted [6]. Halal certification on certain products assures Muslim customers that all materials and manufacturing methods are sharia-compliant [7]. Religion is a factor that influences people's everyday attitudes about product selection. This indicates that religiosity is linked to a way of life principle that is represented in society's and individuals' values and attitudes [8]. There have been several studies on religiosity [9, 10, 11, 8]. However, most research has only reached the intention to buy [11, 12, 13, 14]. Several researchers found that religiosity affects purchasing decisions for halal products [9, 15]. From the research that has been done, no one has revealed a person’s religiosity towards the decision to buy halal cosmetics.

2 Method

This study was place from January to March 2020. Primary and secondary data were employed in this investigation. Primary data was collected using the survey approach, which involved randomly distributing questionnaires to students in three faculties at UMPP (regardless of age, gender, or class boundaries). The variable measurement scale on the questionnaire uses Likert scale. Secondary data was carried out by conducting literature studies from various available sources. The sampling procedure uses Non-Probability Sampling. The number of respondents used was 100 students from a population of 2,397 students. Data processing in this study used the SmartPLS 3.2.0 version software and Microsoft Excel 2013. The collected data was converted into csv extension using MS. Excel statistical analysis software then analyzed using SmartPLS 3.2.0 version software, which is expected to obtain accurate, complete, and comprehensive data analysis results.

The Partial Least Square-Structural Equation Model (PLS-SEM) is used in this study. SEM is a cross-sectional, linear, and general statistical modeling tool [16]. Factor analysis, path
analysis, and regression are all included in this SEM. SEM is a statistical approach for developing and testing statistical models, most commonly causal models. SEM may estimate numerous relationship relationships between variables and depict the pattern of link between latent constructs and indicator variables. SEM can perform factor, regression, and path analysis simultaneously and can complete the analysis with a one-time estimate where the other is solved by multiple regression equations. It can be stated that SEM contains qualities that are more confirmatory than explanatory in nature. PLS-SEM is an alternative to SEM analysis that permits data that is not normally distributed to be used (SEM requires normally distributed data), but it may also be used with normally distributed data [16]. As a result, PLS-SEM is also known as a soft modeling technique with less severe requirements than SEM, such as measurement scale, sample size, and residual distribution. In PLS-SEM, the endogenous latent variable's variants are maximized by estimating the partial model relationship in the order of the usual least squares regression iteration, and the latent variable values are estimated using a linear combination of the indicator variables associated with the latent variable and treated as a substitute for the indicator variables. The main goal of PLS-SEM is to increase the variance of endogenous latent variables as described in [16]. A structural model analysis (inner model) can be performed using PLS-SEM, which shows the strength of the estimation between the latent or construct variables, as well as a measurement model evaluation analysis (outer model), which shows how the manifest variable represents the latent variable to be measured. The reflecting and formative models are evaluated separately in the measuring model evaluation. This research employs and evaluates a reflective model. The loading factor, composite reliability, average variance extracted (AVE), and Cronbach's alpha are all included while evaluating the outer model [17]. Evaluation of the inner model consists of two latent variables, namely religiosity and purchasing decisions. Each latent variable has a reflective indicator that reflects the variable. The analytical method is used to determine the overall direct and significant positive effect on exogenous latent variables, that is religiosity towards endogenous latent variables, that is purchasing decisions.

This research model uses an adaptation approach from [9] and [15] where religiosity is as x1 and purchasing decisions as y2. The construct that is built consists of religiosity which has 8 indicators [15] and purchasing decisions which have 6 indicators [11]. The research model is presented in Figure 1.

![Research Model](image)

**Fig. 1. Research Model**
The research hypothesis is compiled based on one thing that is a measure of religiosity towards purchasing decisions for halal products in youth. From Figure 1, the research hypothesis can be formulated as follows:

H1: religiosity has a significant effect on the purchase decision of halal cosmetics in youth

3 Results and Discussions

3.1. PLS-SEM analysis in religiosity and purchase decisions

The outer model and inner model are both evaluated when the PLS model is evaluated [18]. The outer model is a measuring model that is used to evaluate the model's validity and dependability. The measurement model parameters (convergent validity, discriminant validity, composite reliability, and Cronbach's alpha) were collected by the algorithm iteration process, including the R2 value as a parameter of the prediction model accuracy. The inner model is a structural model that predicts latent variable causality [18]

3.2. Validity test

The validity test assesses the strength of the association between the construct and the question items, as well as the relationship with other factors. The loading factor > 0.7, AVE > 0.5, and cross-loading > 0.7 in one variable is the rule of thumb that is commonly used to determine validity [19].

3.3. Outer model

In this study, the validity and reliability of the latent variable indicators of religiosity and purchasing decisions were carried out using the SmartPLS 3.2.0 software. Figure 2 shows the model output.
From the result in Figure 2 shows that the loading factor for religiosity there are five indicators that have a value of <0.7, including \(x_{1,4}\) (0.374), \(x_{1,5}\) (0.520), \(x_{1,6}\) (0.594), \(x_{1,7}\) (0.430), and \(x_{1,8}\) (0.631). Meanwhile, for purchasing decisions, three indicators have a value of <0.7, namely \(y_{1,1}\) (0.572), \(y_{1,5}\) (0.579) and \(y_{1,6}\) (0.632). That is, several indicators have a less strong correlation between the construct and the question items, while some correlate.

Based on the loading factor result in Figure 2, the indicators with a value of <0.7, that is \(x_{1,4}\), \(x_{1,5}\), \(x_{1,6}\), \(x_{1,7}\), \(x_{1,8}\), \(y_{1,1}\), \(y_{1,5}\) and \(y_{1,6}\) were removed from the model because they were not significant. Then the model is re-estimated again by removing these indicators. The results of the calculation are as shown in Figure 3.

![Fig. 3. Output Model After Change](image)

From Figure 3 above, it can be seen that the loading factor (\(\lambda\)) of the indicator value of each construct of religiosity and purchase decision has a value of > 0.7, this means that it is valid to use. Construct reliability and validity show in Table 2.

<table>
<thead>
<tr>
<th></th>
<th>Cronbach’s alpha</th>
<th>rho_A</th>
<th>composite reliability</th>
<th>average variance extract (AVE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>purchase decision</td>
<td>0.813</td>
<td>0.819</td>
<td>0.889</td>
<td>0.728</td>
</tr>
<tr>
<td>Religiosity</td>
<td>0.868</td>
<td>0.888</td>
<td>0.919</td>
<td>0.791</td>
</tr>
</tbody>
</table>

From Table 2 it can be seen that the AVE value of each variable is valid because > 0.5 is 0.728 for the purchasing decision variable and 0.791 for the religiosity variable. Discriminant validity show in Table 3.

<table>
<thead>
<tr>
<th></th>
<th>purchase decision</th>
<th>religiosity</th>
</tr>
</thead>
<tbody>
<tr>
<td>purchase decision</td>
<td>0.853</td>
<td></td>
</tr>
<tr>
<td>Religiosity</td>
<td>0.642</td>
<td>0.889</td>
</tr>
</tbody>
</table>

The value of the correlation between the variable and the variable itself, as well as the value of the variable with other variables, is known as discriminant validity. The required correlation between the variable and the variable must be higher than the required correlation between the variable and other variables. Table 3 reveals that the purchasing decision variable's correlation
value with the purchasing decision variable (0.853) is higher than the purchasing decision variable's correlation value with the religiosity variable (0.642). Furthermore, the correlation coefficient between the religiosity variable and the religiosity variable (0.889) is higher than the correlation coefficient between the purchase decision variable and religiosity (0.642). There is no shortage of meaning. Cross loading show in Table 4.

**Table 4. Cross Loading**

<table>
<thead>
<tr>
<th></th>
<th>purchase decision</th>
<th>religiosity</th>
</tr>
</thead>
<tbody>
<tr>
<td>x1_1</td>
<td>0.468</td>
<td>0.835</td>
</tr>
<tr>
<td>x1_2</td>
<td>0.631</td>
<td>0.923</td>
</tr>
<tr>
<td>x1_3</td>
<td>0.596</td>
<td>0.906</td>
</tr>
<tr>
<td>y1_2</td>
<td>0.858</td>
<td>0.564</td>
</tr>
<tr>
<td>y1_3</td>
<td>0.873</td>
<td>0.582</td>
</tr>
<tr>
<td>y1_4</td>
<td>0.828</td>
<td>0.493</td>
</tr>
</tbody>
</table>

Cross loading is a correlation between indicators and variables. Table 4 shows that the indicators that measure the correlation variable are greater than the correlation indicators with other variables. The meaning, there is no lack.

### 3.4. Reliability test

The value of Cronbach's alpha and composite reliability must be greater than 0.7 [20]. AVE, Cronbach’s Alpha, composite reliability show in Table 5.

**Table 5. AVE, Cronbach’s Alpha, Composite Reliability**

<table>
<thead>
<tr>
<th></th>
<th>Cronbach’s alpha</th>
<th>rho_A</th>
<th>composite reliability</th>
<th>average variance extract (AVE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>purchase decision</td>
<td>0.813</td>
<td>0.819</td>
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</tr>
<tr>
<td>Religiosity</td>
<td>0.868</td>
<td>0.888</td>
<td>0.919</td>
<td>0.791</td>
</tr>
</tbody>
</table>

In table 5, the results of the analysis show that all latent variables have AVE, Cronbach's alpha, and composite reliability values above the set prerequisites, which is 0.7, meaning that the measurement model is acceptable, valid, and reliable.

### 3.5. Inner model

The R-Square (R2) for the dependent variable is used to evaluate the structural model in PLS, while the path coefficients and t-statistic for each path are used to test the significance between variables in the model show in Table 6. The level of variation in changes in the independent variable versus changes in the dependent variable is measured by the R2 value. The greater the R2 score, the better the research model's prediction model [18]. R2 values of 0.75 are considered high, 0.50 are considered moderate, and 0.25 are considered weak, according to the rule of thumb [20].
Table 6. R-square

<table>
<thead>
<tr>
<th></th>
<th>r square</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>purchase decision</td>
<td>0.413</td>
<td>Moderate</td>
</tr>
</tbody>
</table>

Table 6 shows that the R2 value of the purchasing decision variable is 0.413. This means that the purchasing decision variable is influenced by the religiosity of 41.3%, while the remaining 58.7% is influenced by other variables such as halal certification, country of origin, and others.

By comparing the t-statistic with the t-table, hypotheses are tested by looking at the outcomes of bootstrapping on the path coefficients (1.96). If the t-statistic > t-table then the hypothesis (H1) is accepted. Tables 7 and 8 show the outcomes of data analysis with an alpha of 5%.

Table 7. Path coefficient

<table>
<thead>
<tr>
<th></th>
<th>purchase decision</th>
<th>religiosity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Religiosity</td>
<td>0.642</td>
<td></td>
</tr>
</tbody>
</table>

The values in table 7 show that 0.642 are in the range of -1 to 1. So, the direction of the relationship of religiosity to purchasing decisions is positive.

Table 8. t-statistic (bootstrapping)

<table>
<thead>
<tr>
<th></th>
<th>original sample mean</th>
<th>standard deviation</th>
<th>t-statistic</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>religiosity to purchase decision</td>
<td>0.642</td>
<td>0.518</td>
<td>0.319</td>
<td>2.013</td>
</tr>
</tbody>
</table>

The t-statistic in Table 8 shows that the value 2.013 is > 1.96. So, the results of this study are significant. Hypothesis test result show in Table 9.

Table 9. Hypothesis Test Result

<table>
<thead>
<tr>
<th>Path</th>
<th>path coefficient</th>
<th>t-statistic</th>
<th>p-value</th>
<th>Hypothesis</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Religiosity -&gt; Purchase decision</td>
<td>0.642</td>
<td>2.013</td>
<td>0.000</td>
<td>Accepted</td>
<td>Significant</td>
</tr>
</tbody>
</table>

Based on the results of the evaluation of the inner model, the researcher concludes the research hypothesis. The results of hypothesis testing are as follows:

H1: There is an influence between religiosity on purchasing decisions

The results of the analysis as presented in Table 9 show that religiosity has a significant effect on purchasing decisions with a t-statistic of 2.013 > 1.96 with a p-value or at a significance level of 0.000, which means that the test results are 100% probable, then H1 is accepted. Indicators such as the 5 daily prayers, observing the fast during Ramadan, and paying zakat all serve the reasons for a person to decide to buy halal cosmetics.

The results of this study are in line with research conducted by Bachleda which states that religiosity affects purchasing decisions for Moroccan women on Muslim clothing even though it has only a slight effect. Other characteristics, such as age, marital status, and education, may have higher value as a segmentation tool for women's apparel in Muslim nations, according to
Bachleda's research. To put it another way, a Muslim woman's choice of clothing is not solely motivated by piety. This is confirmed by the results of this study. Respondents admit that the selection of halal cosmetics is not just about halal but also other factors such as compatibility with the respondent's skin type. Bachleda's research used regression as an investigative tool for research. Whereas in this study using SmartPLS. Research by Machali shows that religiosity has a direct effect on purchase decisions significantly. Customer behavior is influenced by consumer religiosity, according to the findings. Individuals who are deeply religious are more likely to be worried about halal meals and to make halal food purchases. The findings of this study back this up. The results of data analysis show that religiosity has a significant influence with a significance of 2.013.

The present study had several limitations which might also inform future research. First, the number of respondents which is only 100 may not represent the number of users of halal cosmetics. Second, it is also deemed necessary to consider the age of the respondents.

4 Conclusion

The results of this research indicate that religiosity affects the purchase decision of halal cosmetics on youth. Even though religiosity affects the purchase decision but youth does not matter about the halalness of the cosmetics they buy due to the understanding that halal is only something that is eaten, they choose the products based on the ingredient (such as for sensitive skin).

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References


Personal and Political Correctness: A Content Analysis of Leading Politicians Instagram Account in Indonesia

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Abstract. Positioning political party opens a relationship between leaders and their stakeholders. A common theme in adopting relationship online is that social media platform needs more attention to be beneficial. This article looks at how leading politicians value Instagram as communication platform and how Covid-19 pandemic message communicated by the actors within the platform. Content analysis was conducted on five leaders of large political party in Indonesia to understand their value and communication code in their postings. From the data, the study revealed younger politicians tend to value the platform more than others in the way of following the trends and showing their personal characteristic instead of political and professional characteristic.

Keywords: Instagram; Covid-19; content analysis; political party; politician

1 Introduction

As the opening quotation suggests, the bio section in Instagram account from one of leaders of political party in Indonesia showed personal touch, which is a sign of self-representation. One of the most important social media in Indonesia is Instagram, which is listed as the number 4 biggest social media in Indonesia and used by 126,4 million people [1]. Instagram is defined as a chosen platform for celebrities, actors, even government officials to share information and daily activities to publics. The establishment of Instagram has been connected to the capturing everyday activities in photo or video like a new norm as a daily life document [2]–[5]. Furthermore, a large portion of Instagram content comes from raw materials that cultivated to create intimacies between participants and audiences as well as how ‘raw’ contents produced by users [6].

This study argues that the platform allows opportunity for wider variety of personalities and overlapping relationship between public and private as well as forging relationship [7]–[9]. The production of content and sharing visual content applied to niche interest in Instagram, suggesting that the world has greater recognition to the practice of Instagram users [10]. However, the utilization of Instagram by politicians proven to be more successful compared to the political institution as well as “communitainment” [11] [12]. The spread of Instagram utilization within political field is then a apart of a wider discussion in mobilization, user engagement, and promotion [13] [15].
2 Method

We focus on Instagram official accounts of politician who have a consistent presence in the platform and offer public free access to their political, professional, and personal viewpoint. Head of large political party is our focus. Instagram postings from pre-March 2020, along with other older account details, were excluded from our sample. The materials for this research consisted of Instagram postings (during March 2020-recent) that fixated on five leaders of political party in Indonesia. The materials were gathered through identifying political parties’ website, Instagram field research, narrowing to five leaders that consistently active and engage in Instagram as their communication platform. Account bio, the number of posts, number of followers, number of following available from Instagram platform are also studied.

The politicians were chosen based on presence in the platform for an extended period and were thus posting and showing familiarity with the Instagram conversation and noticed by other Instagram users. Five politicians were leaders of large political parties in Indonesia from different political positioning (governmental supporter and opposition). The data gathering was conducted the early August until the end of August, with postings from these accounts pinpointed from their official accounts. The politicians first identified from the party official websites, their presence in Instagram then explored and their consistent quantity of posting in the platform was the criteria for the sample candidates. Each posting was studied to show their point of view on what current happenings in relations to Covid-19 pandemic from their Instagram feed. The postings were categorized to reflect on the type of political, professional, and personal position in the nation as well as their engagement with their stakeholders and the activities of these politicians as politician, executive, public figure, and public officials.

3 Results and Discussion

As the data analysis took place from all the postings within the research period, it revealed that the politicians deployed different approaches in the management of their Instagram account, for example, personal activities with family, me-time moment, and comedy content (AHY, Cak Imin) compare to serious international, national-level meeting attendance and photos with the president (Airlangga, Zul, HT). The example from the two Instagram postings caption further illustrates this comparison:

a. “This is the time for me and Annisa confused about choosing a wedding ring, for single men and single women, don't worry about choosing a wedding ring, worry about choosing your soul mate” (AHY)

b. “Today I attended the signing of a cooperation agreement on the corporate guarantee program for the national economy recovery at the Mezzanine Hall, Ministry of Finance, Wednesday (29/7) …” (Airlangga)

In the above quote, it appears that anything that related to personal touch on these Instagram data is came from younger personality and opposition (AHY) to signal quality of prestige of being real person not only serious political message, which legitimates political leadership as the point of self-representation for differentiation from the rest. This data also emphasizes how important political figure in the country also produce proximity to public by posted photo / video of their personal space and story, which in turn enforces non-organizational rigidity of what viewed as political power in how to become acknowledged and valued. A serious political identity thus bears distance from the public in general for this personality.
What constitutes a national-class personality is, nevertheless, created in deculturalize (national) and depoliticized (open for all) behavior without explicit political message and connotation constantly in the Instagram postings. In the following section, the data shows how such messages become a communication tool in Covid-19 pandemic issue.

3.1 Personal characteristics

The starting point of communication via Instagram is that photo (and video) is never stands alone: where there is power, there is responsibility. Although, another fundamental issue regarding standard information of Covid-19 pandemic revolves around numbers and drug, people still need to be reminded as to health protocol and lockdown procedure of a certain places around the country. Issue such as Covid-19 pandemic is one of the national agenda, in which these politicians carry a moral and political responsibility to use their power to encourage other (even within their own institution) to at least aware of the issue and in a way educate the public.

Airlangga represents himself as a serious political leader in Instagram from his posting with less personal touch. Most of the posts (photo and video) are staged and constructed as public officials. His only family members that captured in the Instagram post is his wife in her capacity as the first lady in the ministry.

Meanwhile, Cak Imin shows some personal characteristics to his public by posting photo of his family members and family activities, not only his wife. In his feed from earlier March when Covid-19 outbreak identified until August, Cak Imin posted his personal space, his dining table at home, his living room space, his home office, bicycling with his friends, old photos from 14 years ago, etc. The old photo that he posted, following Instagram users open challenge when celebrities started to post their old photos when they are still clueless. He also reposted some funny and comedy video and photos to entertain his followers. In his Instagram feed, his standard of self-representation remains light voluntarily but is sometimes cited as serious, thus giving his followers an access to his personal characteristic that appears to be his personal traits and his followers (mostly political) is conveniently assumed that proximity is Cak Imin’s personal status. In other posts, his caring message looks easily flow because he used to carry a light message. For example, on April 1, his video encouraging people to keep a healthy routine and reach out for help if need help shot from his living room with a modest camera and lighting setting. In his serious photos behind a podium as a keynote speaker or photos side by side with prominent national figures, however, it was still comedically captioned with slangs and words that millennial say routinely. Even so, it is important to remain aware that compliance with the political standard does not of itself confer comedically from messages, as Cak Imin practiced in his Instagram posts.

Nonetheless, recent posts since March 2020 from AHY has shown that personal space also means postings photos with his loved ones (daughter, wife, dad, mom, brother, and niece), one that has on his causal occasion when he played swing with his daughter. Doubtless, younger than any politician in this study, AHY follows trends in social media, such as posting his old photos with his wife when they still on a date. The tendency of AHY savviness in social media management (using his own smartphone to post content) has become standard not only because he is in his young age but also, he is potentially going to participate.

In contrast, Zulkifli as the head of PAN in one post showed he was walking out from an office with West Java Governor. This far more concerned with his serious political figure showing political support to the elected governor, whether what was done was reasonable in the circumstances is a valid question because of his political position. However, posting a video with his granddaughter, photo of strolling around with his wife, video of his whole family during
Id prayer in his living room are some of the posts that show his personal characteristic in front of his followers.

The self-representation for Harry Tanoe in Instagram shows his political message in least quantity compare to his business side as Executive Chairman of MNC (one of the largest media companies in Indonesia). His personal touch on the postings shows from his postings about his family members (wife, grandchildren, and children).

3.2 Professional and political characteristics

AHY brings a unique treat in terms of Instagram postings. He appears to have real individual image in the social media compare to Airlangga, Cak Imin and Zulkifli, these three officiate in the legislative and executive. While Harry Tanoe is an executive in the large media company. With the fact that for the most part, they are the head of large political party in Indonesia and have a reasonable follower as to what might constitute a standard professional and political self-representation in social media. They also cannot cater for misplaced of message that, for whatever reason, might demand a more attentive communication option. The extent of professional and political characteristics benefits the politicians in terms of their personal branding because of their leading position in the political institution. For example, Harry Tanoe as a self-made successful businessman who founded a political party, so his postings also consist of some motivational content in the form of video and photo with insightful caption. The finding in the data for his Instagram account is that political message blend (even obscure) with another message that he tries to convey.

4 Conclusion

Using this content analysis lens, we have addressed the self-representation and communication of leading politicians in Instagram and connect that with Covid-19 pandemic. We presented how these politicians positioned themselves in social media platform which heavily focus on still images and video, places in which the public could gain national conversational pieces and political educational material. Yet our analysis of the online interpretations of the national-level individuals and the identification differences illustrated the modes and communication models to their stakeholders and public in general. Our results have thus shown how politicians show their true color in terms of how they position and value the social media platform, which naturally embedded with high potency in communication power for advertisement purposes, political image, engagement pods and social utility purposes.

Our results have thus indicated how images and videos manifest in communicate their political position of a national and culturally fused political education and the ideal portrait of politician in the eyes of public. As discussed above, since the early March 2020, the politicians’ message has shown their truly caring positioning as a national public figure as well as their current leading position in the government or company. Such a positioning and self-representation reflect politician management and value on the platform. As much as they value the platform, to the point of using their own smartphone to post to their Instagram account, the platform values them back by at the minimal level to verify their accounts. But the value and message need to relate to each other. There is time and efforts to communicate in this platform to get the message across and to benefit fully from the platform. The strong commitment to entertain, educate and just to greet (as Cak Imin mentions in his Bio section) the followers
demonstrated by these politicians in a diverse type of way which implying that politicians are eager to change and adopt to newer communication channel (either self-aware or educated) and to play a greater role in the development of the national political conversation. Although the determination of personality like AHY which founded as having the highest determination in valuing the platform as communication channel, whether personality such as Airlangga low value to the Instagram platform (the rigid and template-based content) is subject to discussion. As a literature argues, Instagram is used mainly for broadcasting instead of mobilizing. The personalization of the leader is important in party’s image. In relations to Covid-19 pandemic issue positioning, all the politicians show awareness and post photos and video where they obey government instruction such as physical distancing and wearing a mask. To take up a notch, Cak Imin posted a video addressing this health protocol issue. These politicians also mirror what happenings in Indonesia, when lockdown until new normal was implemented, we can see the development of the condition of the nation coping with the pandemic not necessarily reading the text.

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References


Governmentality, the Discourse, and Indonesia’s Family Planning Program

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Abstract. This paper aims to analyze how Foucauldian perspective sees the discourse of a happy-prosperous-small family and the Family Planning Program in Indonesia. Those are integrated state programs of Indonesia government since 1970 to control the population. By using the concept of governmentality, Foucault saw this as a method to discipline the live over society using the regulation, discourse making, state apparatus and method to establish a very nurture circumstance for the economic stability in Indonesia. This paper argues that the process of governmentality, the Family Planning program, and discourse making of a happy prosperous small family are intertwined in to control population. This paper sheds light on the problematization of how they are produced, on what discourse they go and what kind of subjectification they used in the implementation of Family Planning program Indonesia.

Keywords: Governmentality, Prosperous Small Family, Population, Discourse, Family Planning Program, Foucauldian

1 Introduction

Overpopulation is one’s of Indonesia’s current major issues. According to the UN, the population of Indonesia in 2015 reaches about 257.56 million people, or about 3.50 percent of the total population of the world [1]. Furthermore, according to BPS Indonesia Population Projections 2010-2035, the population of Indonesia within the last 5 years had been increasing. In 2011, the population of Indonesia reached 241.99 million people and continued to increase to 255.46 million people in 2015. It contributed hugely to the increasing world’s population in the next recent years because the world population envisaged reaching 8.5 billion people in 2030, increase to 9.7 billion in 2050 and there is no signal of this figure will be declining [2].

Most of Indonesia’s population growth concentrated in urban areas. A significant increase in population, especially among the urban poor, would compound some of the problems. In Indonesia, population problems also felt by the people amongst those suffering in a low quality of life and the amidst of national food shortage. Ironically, this abundance of people not supported by the quality of life and adequate food availability. Thirty per cent of households stated that their food consumption was less than their needs. More than a quarter of children under five years have less than the ideal weight. Even before the crisis in Indonesia in 1997 and 1998, 42% of children under five years old suffered from stunting, due to malnutrition [3]. And now, even though Indonesia’s rice consumption per capita is high, it still relies on rice imports from Vietnam and Thailand [4].
Despite the increase, Indonesia had done the attempt to reduce population since 1970 by the establishment of the Family Planning program or Keluarga Berencana (KB) Program. It is an effort to regulate the number of births in such a way that the birth does not cause more harm than good for the parents, community and society in general. This attempt includes the usage of various types of contraception tools to prevent pregnancy, the education to increase the knowledge and awareness of family through maturing the age of marriage, birth control, fostering family resilience, and the empowerment to have a less-child family program [5], [6]. Thereof, The Family Planning Program also aims to improve people's living conditions by reducing birth rates so that population growth in Indonesia does not exceed production capacity [7].

The Family Planning Program is a vital population control effort, in reconstructing society to separate its personal life (reproductive problems) into social issues (overpopulation). This paper argues that the implementation of the family planning programs is the effort of Indonesia’s government to discipline the society under the discourse of a norm of happy, prosperous small family. By using foucault’s concept of governmentality, this research will shed light on the rationality, making of discourse, problematization, discourses, and mode of subjectification of governmentality of this operation in everyday life in Indonesia. This research will use literature research and a depth purposive interview of the stakeholders and the objects of policies.

2 Literature Review

Governmentality is the concept proposed by Michael Foucault. It is a mechanism of how the government has power over the body of society. Because the state has sovereignty to control the population in order to help the country solve the country's problems. Population, on the other hand, is the object that is subjectivity in helping the country's problems. To make them as Subject, Communities need to be given an understanding of the various things they can do and what they cannot do for the country through a series of strategies, law enforcement, policy interventions with the aim that they can become subjects and adjust so they can help the country well. It can be interpreted as a programmed state effort to lead the subject (society), whether done by structuring the subject field by creating a state that can make the subject develop or influence the development of the subject itself. The limitations of governmentality revolve around problems and techniques for governing in the political context to create an order that can support the preservation of economic governance. All of this was achieved to help the government achieve its economic goals which were its main mode. In this context government intervention becomes as a tool to make the power of state over the maximum economy achievable [8].

In governmentality, government sought ways to regulate the conduct of the inhabitants of a territory, but to do this through ruling ‘from a distance’. Governmentality refers to the ways in which a state attempts to regulate its people and territories [9]. Governmentality concerned with the ‘art of government’: with ‘knowledges of how to rule but also with . . . the organized practices through which we are governed and through which we govern ourselves’ [10]. Burchell [11] argues that governmentality has two aspects: the technical aspect or ‘the will to govern’ reflected in the principles and goals that guide peoples’ behaviour and manifested in the practices that regulate behaviour and knowledges about ‘the reasons, justifications, means and ends of rule’ [12]. Miller and Rose [13] describe this as the mentality of rule. For Rose [14], it has a moral aspect in that it is concerned with the allocation of responsibility for the tasks of
governance, but also an epistemological aspect in that these ideas ‘embody particular conceptions of the objects to be governed’. For Foucault [15], the focus of governance from the nineteenth century has been upon the protection of the population through the materiality of power operating on the very bodies of individuals. The dominant model of governance or governmental rationality operating from this time in Western countries has been liberalism which in line with democracy. The central discovery of democracy for Foucault was that it was not possible to govern too much. He states, it seems to me that, at that very moment it became apparent that if one governed too much one did not govern at all – that one provoked results contrary to those one desired. By this we can elaborate more that Indonesia is one amongst state that adopt democracy in its government.

3 Method

There are several aspects that must be applied in examining the concept of governmentality. According to greenhalgh [16], governmentality has a focus on knowledge, problematization, strategic aims, governmental techniques and modes of subjectification (intended and unintended) effects. According to rabinow and rose [17], there are at least three things that must exist in explaining public policy using the concept of governmentality, namely truth discourse, strategies of intervention, and mode of subjectivation. On the other hand, according to legg [18] in the context of the implementation of foucault's theory in geographies explains that there are at least five aspects that must be discussed such as subjectification, information collection and theoriorialization, geopolitical imagination, state technology and international comparison [18]. Rabinow and rose [17] said that the course of biopolitics and governmentality at least must include these three: discourse, strategic of intervention and modes of subjectification. This paper will discuss at least three aspects that need to be present, namely problematization, discourses, mode of subjectivation.

4 Results and Discussion

4.1 Problematization: the birth of the birth control programs in Indonesia

The excessive population growth has been one concerning indonesia’s government since 1970. The program of controlling population growth was one of five aspects in the Rencana Pembangunan Lima Tahun (REPELITA 1) Five-year Development Plan I of Soeharto Regime in 1969-1964. Indonesia in the 1970s experienced unprecedented health problems. The situation and health problems that happened at that time in Indonesia were very alarming. The spread of disease (Smallpox, Tuberculosis, Malaria, Colera, PES, and Frambosia) is very high. The spread of this disease occurs in various regions in Indonesia and infected many communities. For example, Tuberculosis, this disease affects about 4% of the entire population of Indonesia [19]. This condition is worsened by inadequate Hygiene and Sanitation and health facilities. Even hospitals in Indonesia cannot keep up with the increase in population that occurs. According to history, that in 1959-1965 Comparison of beds in hospitals with a population of 8: 1000 residents. Not to mention coupled with the lack of capacity and availability of health equipment that is damaged and lacking in maintenance. Problems also occur in the availability of medical personnel in Indonesia. In 1968 Indonesia had 5,000 medical personnel with a population of
115 million people, so that there was a ratio of doctors to a population of 1: 23,000. This caused the maternal and infant mortality rates to be very high and this is certainly alarming and caused the life expectancy of the Indonesian population to be very small at only 48, 65 years in 1960 [19].

This problem is a result of the previous government's lack of attention on population issues. This is a problematization by the government to implement a family planning program and adopt a program that previously came from several community groups who are concerned with this condition and conduct education programs to the community related to the importance of thinking about self and family welfare by reducing the number of children in the family. They initiated the formation of the PKBI (Indonesian Family Planning Association) in 1957. PKBI also held a congress and urged the government to make the Family Planning Program a national program to solve this health problem. Finally, the New Order Government established the KB Program as part of REPELITA and formed the Family Planning Coordinating Board National (BKKBN) established on the basis of a presidential decree no.8 of 1970 [20]. The purpose of implementing the family planning program is to form a family small according to the socioeconomic strength of a family in a way arrangement for the birth of a child in order to obtain a happy family and prosperous who can meet their needs [21]. Finally, the Family Planning Program by the BKKBN, local government, health agencies and the community has become an annual national program of government until now. Although the population in Indonesia is still increasing every year, this program can educate the public through the Norms of a Happy and Prosperous Small Family (NKKBS) to help the government solve government problems related to population so that life expectancy in Indonesia is constantly increasing.

3.2 The Discourse: A Norm of happy, prosperous small family and Family Planning Program

Indonesia made A Norm of happy, prosperous small family as the goal of the implementation of the Family Planning Program by the Indonesian government to educate the public which was opposed by various religious groups from the community. Previously there was a discourse "many children have lots of good fortune" in the community. This discourse developed in Indonesian society, which is predominantly Muslim. This discourse originated from the influence of religious organizations in developing this discourse in Indonesian society and the pro-natalist vertical policy of the old order government.

The fertility policy adopted by the old-order government led by Sukarno, who led post-independence Indonesia from 1945 to 1965, had a pronatal style meaning that the various policies produced relating to reproduction are policies that support birth. President Soekarno openly stated that he did not support the idea related to the Family Planning program launched by the PKKBI in the community, although he allowed the community to regulate birth spacing in order to maintain the health of mothers and children. He saw that the rapid population growth that occurred in Indonesia need to be resolved not by spreading discourse related to reducing the number of children but by the transmigration program. Transmigration is the movement of population from densely populated areas to less densely populated areas within national borders, in the context of national policies for the realization of a more balanced population distribution. The term transmigration itself was first put forward by Bung Karno in 1927 in the Indonesian daily Soeloeh. Then, in the Economic Conference in Kaliurang, Yogyakarta, along with the Economic Committee Committee on February 3, 1946. In addition, Vice President Muhammad Hatta mentioned the importance of transmigration to support the development of industrialization outside Java [22]. President Soekarno said in his speech commenting on the
distribution of the Family Planning Program discourse as quoted by Isnaini [20]: "For me, the solution is to open more land, because if you open all the land in Indonesia, you can feed 250 million people, and I only have 103 million people ... In my country, the more children the better".

This pronatalist government is also supported by various Islamic religious institutions and organizations in Indonesia. Muhammadiyah and Nahdatul Ulama are two examples of Islamic organizations in Indonesia who reject the spread of this religion because it is contrary to religious norms related to fertility. In addition, the Indonesian Ulema Council (MUI) also rejected the spread because Islam considers that having many children is a noble thing and is recommended by religion. In addition, they assume that one of the goals of holding a marriage is to produce offspring, not limit it [20].

There was a rejection from the community regarding the implementation of the family planning program. This resistance has also been explained by Foucault that during periods of problematization, governments were forced to either adapt their programmes or launch justifications for what they were doing. people resisted, subverted and problematised these programmes, and were often aware of attempts to insidiously influence individual action. Such periods of reflexivity were not necessarily caused from without; tension between different governmental rationalities or techniques of power could also necessitate reform [22].

3.3 Modes of Subjectification

Modes of Subjectification is the term of government turns society as a object of politics into a subject of politics. According to Rabinow and Rose [18] Modes of subjectification, is the mechanism of which individuals are brought to work on themselves, under certain forms of authority, in relation truth discourses, by means of practices of the self, in the name of their own life or health, that of their family or some other collectivity, or indeed in the name of the life or health of the population as a whole.

The mode of subjectification can be done by the normalization that aims to objectify subjectivity. Because the power is discourse, government can classify and divide populations through establishing normative standards for bodily performance and presentation. This can normalize the body and discipline them. According to Foucault power is also operates through subjectification, which is concerned with the ‘way a human being turns him or herself into a subject’ [23]. Foucault argues for a process of self-formation that is mediated by exposure to discourse and incorporation of those knowledges into a concept of self, resulting in self-regulation in response to professional and scientific knowledges.

Normalization is an effort to make the population as a subject meaning that the population which is a political object needs to change their perspective to see the problems of government. They need to make themselves subjects too so that they can discipline themselves. Population growth is indeed a government problem, but population growth can also cause ourselves and family difficulties in the economic, health and social fields. In Indonesia, the government makes normalization with the discourse A Norm of happy, prosperous small family. The population is normalized to be able to achieve A Norm of happy, prosperous small family as a goal for a better family in the fields of economy, health, education. People need to realize that if they do not limit the number of their children. They will have difficulty living their lives [19].

Discourse A Norm of happy, prosperous small family is in article 11 paragraph 1 of Government Regulation of the Republic of Indonesia Number 87 of 2014 concerning Development of Population and Family Development, Family Planning, and Family Information Systems. "The Norms of Small, Happy, and Prosperous Families, here in after
abbreviated as NKKBS, are values that are in accordance with religious and socio-cultural values that are entrenched in individuals, families, and communities, which are oriented towards a prosperous life with an ideal number of children to realize birth welfare and inner happiness."

People need to be aware that the family is their own responsibility. The government here has tried to change the mindset of the people that they have a great responsibility to manage their families. In this discourse the government has sought to popularize a sense of responsibility. As explained by Dr. Kartono Muhammad (chairman of PKBI) in his speech delivered at the Family Seminar welcoming the XXI century and its role in the development of Human Resources at Bogor Agricultural University in 1993. He considered that one of the main functions of A Norm of happy, prosperous small family was to popularize responsibility answer from the state to a smaller level, family, because families with more disabled children will have a greater chance of prosperity and happiness [24].

In Article 6 and 11 paragraph 3 of Government Regulation of the Republic of Indonesia Number 87 Year 2014 Regarding Development of Population and Family Development, Family Planning, and Family Information Systems, national family development policies are directed at: institutionalizing and civilizing NKKBS; empower family functions; independence of the family; empower local wisdom; improve the quality of the entire life cycle; meet the basic needs of the community; and empower community participation. So, the main function of the existence of the family planning program is to cultivate a norm of norm of happy, prosperous small family. While the specific function of this Family Planning Policy is in article 18. The program aims to; regulate the desired pregnancy, maintain health and reduce maternal, infant and child mortality; improve access and quality of information, education, counseling, and family services, planning and reproductive health, increase men's participation and participation in family planning practices; promoting infant breastfeeding and in an attempt to spart pregnancy intervals. In Article 18 above it is clear that there is an attempt by the government to regulate the community by making them aware of what their responsibilities are. It is hoped that with this program they can contribute to helping the government by participating in implementing family planning programs [19].

In addition, there is also a Surveillance function in the form of efforts to control the success of the family planning program by means of family data collection as cited in article 17. Family data collection is a procedure for collecting, processing, presenting, and utilizing demographic data, family planning data, family welfare data, and data on family members carried out by the Government and Regional Government together with the community simultaneously every 5 (five) years and the resulting data is accurate, valid, relevant, and can be accounted for [19].

4 Conclusion

This article tries to examine the implementation of family planning program as well as the establishment of the norm of the discourse of a norm of happy, prosperous small family using foucauldian perspective of governmentality in the democratic state such as Indonesia. The governmentality studies analyse three aspects of problematization, discourses, mode of subjectification in the implementation of family planning program. This article found that using governmentality this program initially tried to solve health problems in Indonesia in the late of 1970 by converting population rationality of the discourse "many children have lots of good fortune" to a Norm of A happy prosperous small family. It had been one of the most concern Indonesia’s government in the REPELITA I in 1970’s under the regime of Soeharto to counter
pro-natalist policy of the prior government of Soekarno. Later on, this program became the annual program of Indonesia government until now. Under the goal of a norm of happy, prosperous small family, the family planning program seeks more ambitious goal, namely the demographic bonus of Indonesia in 2030.

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References

The Perceptions about Islamic Banks: Study at Islamic Boarding School Al-Hikamussalafiyah Purwakarta

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Abstract. This article focuses on the discussion of the perceptions of santri, ustadz and caregivers of the Cipulus Wanayasa Purwakarta Islamic Boarding School of Al-Hikamussalafiyah Islamic Boarding School, and the attitude of students, religious teachers and caretakers of the Cipulus Wanayasa Purwakarta Islamic Boarding School of Al-Hikamussalafiyah Islamic Boarding School. The method used in this research is a descriptive study with a qualitative approach. The attitudes and decisions of the students not to choose an Islamic bank are influenced by the distance of the Islamic bank’s location and the uncertain legal basis. Meanwhile the students decision to choose a conventional bank is determined by the ease of accessing conventional banks and their services. Even though the students perceptions of bank interest are positive, it is not enough to convince students to choose Islamic banks. The perceptions and attitudes of the Ustadz at the Cipulus Wanayasa Al-Hikamussalafiyah Islamic Boarding School were positive, indicated by their agreement with the basic principles of Islamic banking. But in reality, the communication or promotion carried out by Islamic financial institutions is not optimal. Even though promotion is very effective for socialization, forming the image of sharia banking and changing people is behavior at the Cipulus Wanayasa Al-Hikamussalafiyah Islamic Boarding School towards the sharia financial system.

Keywords: Perceptions, Islamic banks, Islamic boarding schools.

1 Introduction

Islamic banking is an Islamic banking system that emphasizes ethics, morals that mutually agree and respect each other [1]. The system builds a value that becomes the basis for regulation and development, as well as the values that must be applied in banking operations of individuals who transact following the Prophet's immortality through their characteristics, namely siddiq, amanah, tabliqh, and fathonah. It would be very noble if this system was actually implemented in every activity or economic transaction. In addition, the Islamic banking system also implements 4 (four) values which are often called the principal values of Islamic economics, namely: ta'awun (cooperation), ti'ayah (professional management), masuliyah (responsibility), and fastabiqul khairat (continuously to make improvements) [2].

The basic principle in the function of a sharia bank adheres to 3 (three) main functions (accepting deposits of funds, lending money, and money transfer services), that is, it is permissible to do it unless the banking function performs things that are prohibited by sharia. In today's conventional banking practice, this function is carried out based on the principle of interest. Conventional banks are not necessarily synonymous with usury, but most conventional banking practices can be classified as ribawi transactions. According to Totok [3], a sharia bank
is a bank that both in raising funds and in the framework of channeling funds provides and charges compensation based on sharia principles, namely buying and selling and profit sharing. The main principle of the bank in its operation is based on sharia principles, in view of Islamic law which is derived from the Al-Qur'an and Hadith.

Institutionally, syari'ah banks act as financial institutions that use a relatively new system. Of course, there is still a lot of information that needs to be disseminated in practice. Obviously, every step of the way by jointly improving the system, efforts to improve the existing system are always made. Seeing this, Bank Indonesia has compiled, discussed, and taken the initiative to develop Islamic banks in a comprehensive manner, namely the development of sharia principles, regulations regarding bank prudence, efficiency in carrying out operations and stability of the Islamic banking system [4]. The development of Islamic banks is increasingly growing and developing in several regions in Indonesia, this shows the progress of Islamic banks in the managerial side. In Purwakarta Regency, for example, several sharia bank branch offices have been established. With the existence of Islamic banks, Muslims are protected from usury in their muamalah activities and in accordance with the orders of their religion.

In addition, Purwakarta is known as the city of santri, because Purwakarta Regency is rich in Islamic boarding schools, almost in every district and village there is a pesantren. Where, according to Syahid Ali, that pesantren is a non-formal, traditional Islamic educational institution that studies, understands, deepens, lives, and practices Islamic teachings by emphasizing the importance of religious morals as guidelines and guides for daily behavior. In addition, Islamic boarding schools are taught how to have a congregation in accordance with Islamic law. Books related to this were studied by many students, one of which was the book of Fathul Qarib / Taqrib fiqih Imam Syafi'i, which was compiled by Shaykh Syamsuddin Abu 'Abdillah, Muhammad bin Qasim Rahimahumullah. So that some Islamic economic principles are taught in several Salafiyah Islamic Boarding Schools in Purwakarta. Pondok Pesantren al-Hikamussalafiyyah Wanayasa Purwakarta, better known as Pondok Pesantren Cipulus. This Islamic boarding school was first established in 1840, founded by KH Muhammad / Ahmad Bin Kyai Nurkoyyim who is familiarly known as Ajengan Emed. He is the favorite student of Syeikh Maulana Yusuf Purwakarta, namely the great scholar and hero in West Java in the early 19th century, Ajengan Emed is a diligent student, has a high leadership spirit, so that he can easily absorb the knowledge given by his teacher, either Religion and science of war strategy and other sciences needed at that time. When the Dutch exerted intense pressure on the Indonesian people, he was determined to establish a pesantren. The goal is to gather students to spread the Islamic religion and help achieve independence. Armed with the knowledge he had in 1840, a simple Islamic boarding school was founded in the area of the former capital of Karawang, in the current Wanayasa District, Purwakarta Regency. The pesantren was held directly by Ajengan Emed until the end of his life, after he died, this pesantren was continued by KH Nasyir (1870 - 1900), KH M arief (1900 - 1920), Kyai Sueb (1920 - 1937), KH Masduki (1937-1942), and KH Z Abidin (1942 - 1957).

With this development, the Cipulus Islamic boarding school has an outline of the pesantren policy which is then refined into the basic pattern and development of the Al-Hikamussalafiyyah Islamic Boarding School which is based on (1) Tafaqquh Fi al-din, (2) Da'wah, (3) Ta'awun, (4) Deliberation, (5) Ukhuhwah Isamiyah, and aiming at long-term fostering and developing laughter for Allah SWT to develop useful science and dedication to religion, society and the State, with the aim of having good educational standards, by developing education with a system integrated and new educational methods, cooperating with various parties in order to improve the quality of education effectiveness.
This article focuses on the discussion of the perceptions of santri, ustadz and caregivers of the Cipulus Wanayasa Purwakarta Islamic Boarding School of Al-Hikamussalafiyah Islamic Boarding School; and the attitude of students, religious teachers and caregivers of the Cipulus Wanayasa Purwakarta Islamic Boarding School of Al-Hikamussalafiyah Islamic Boarding School.

2 Method

The method used in this research is a descriptive study with a qualitative approach. Moreau suggests that the main design in qualitative planning consists of several stages (Stages). First, reflection as a stage of thought that tries to look at the problems to be studied, accompanied by a deep understanding so that topics can be determined or selected to be the object of research. Second, planning as the stage of selecting a research place that is in accordance with the problem to be studied, then what strategies will be applied in obtaining the required data. Third, data collection to ensure confidence. Determining the data eligibility criteria is the first step in this stage. Careful documentation about the development of research should provide convincing evidence so that other parties can reconstruct the research process until a conclusion is reached. Fourth, withdrawal. Qualitative research is carried out in a natural setting, this will result in a situation where the researcher will be seen and see himself as part of the setting because he is very familiar with the object of the research / informant. This situation resulted in the researcher being less sensitive to the data that should have been extracted so that it could hinder the data collection process. Fifth, writing research results [5].

3 Results and Discussion

3.1 Perceptions of santri, ustadz and caregivers of the cipulus wanayasa Purwakarta

Islamic Boarding School of Islamic Boarding School The findings from the results of interviews with students of the Al Hikamussalafiyah Islamic Boarding School Cipulus Wanayasa Purwakarta is that there are differences in perceptions of Islamic banks among the students and their leaders. Meanwhile, the santri are not yet interested in using Islamic banking services, even though they have already gained a lot of knowledge about muamalah in recitation at the Islamic boarding school, so they no longer have a conventional mindset. In fact, these students can be said to be successful in managing the pesantren cooperative in the Islamic boarding school. They prefer to use the pesantren economy.

Massively, at Pondok Pesantren Al-hikamussalafiyah Cipulus Wanayasa Purwakarta, for now, students still use conventional bank services, especially since their image of the operational practices of Islamic banks is no different from conventional banks, so they have no consideration of moving to an Islamic bank. Whereas in theory the operational of Islamic banks with conventional banks is very different, one of which is public funds in the form of deposits and investments that will only get results if cultivated first, whereas in conventional banks public funds are in the form of deposits that must be paid interest at maturity.

Most of the students were of the opinion that when several banks under the name sharia had expanded to various regions, the halal-haram provisions were not yet reliable and were not sufficiently convincing among the pesantren. The pesantren is of the opinion that the issue of
business promotion should not be too religious. In fact, the approach of Islamic banks which emphasizes more on emotional aspects must be reduced. Sharia banks should be expected to prioritize professionalism and prioritize excellent service to customers. If this is done optimally, it is certain that the students will have more confidence in Islamic banks. Obviously, Islamic banks must be able to convince the public that Islamic banks are better. This can be a challenge in itself for Islamic banks to erase this image that has been built for a long time and to realize one of the objectives of Islamic banks, namely directing the economy of the people to embrace Islam, especially muamalah which is related to banking, so that it is farthest from usury practices or other types of businesses that contain elements of gharar (hoax), where these types of businesses are not only prohibited in Islam, but also have a negative impact on the economic life of the people, especially the economy of Muslims in Indonesia.

Then, the next analysis is from the students who claim to already know about Islamic banks, in their eyes an Islamic bank is a bank that is said to use a profit sharing system, of course a bank based on Islamic teachings, namely a bank that is in accordance with the principles of sharia. It seems that none of the students have economic reasons, for example saying that Islamic banks are more profitable economically. The bank is only an intermediary whose function is only as a means of transferring money for certain purposes. For example, for the purpose of paying for hajj because it is impossible not to go through a bank appointed by the government or related agencies.

In addition, the opinions of some students and other ustadz show that in theory the operational system of a sharia bank has met sharia principles, but unfortunately they do not fully understand its practical performance. This proves that the operational concept of Islamic banks in theory has met Islamic principles, for example in the product of channeling funds, banks as investors and customers as capital managers, the results of the management of these funds will be divided according to the initial agreement. However, in practice it does not comply with sharia principles because at the time the fund processor experiences losses, and the worst thing is that sometimes the bank does not want to share the loss together. For this reason, the students think that sharia principles have not been used in every transaction at Islamic banks in Indonesia.

The perception of banks, according to Ustadz, is that there is no difference between the practice of Islamic banking and conventional banks, because when customers apply for venture capital financing they experience losses, in their view that the losses will be borne together, it is not. That is what in their view contains the element of gharar. A technique to convince customers, but in the future if a loss occurs, it is not shared. The bank sometimes convoluted in handling the loss cases. It is clear, meaning that previously there was no contract between the customer and the bank which made the customer not aware of the function of the contract they had automatically agreed to. In general, Islamic banks should be more careful and thorough in every transaction. The application of sharia principles regulations must be used in every transaction according to each product of the Islamic bank. not only used in certain transactions.

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This perspective begins to taper, that the knowledge and information received by students about the products and contracts of Islamic banks is minimal. This means that the socialization of Islamic banks is highly recommended to inform the systems, products and mechanisms of Islamic banks to each pesantren. Of course what is meant, the socialization does not just introduce the existence of Islamic banks, but also introduces the mechanisms, products of Islamic banks and other instruments regarding Islamic bank finance to the boarding school community.

From the results of interviews, respondents in the field showed a tendency not to know about the questions about the performance and products offered by Islamic banks. The reason is that their knowledge is still superficial and their interactions with Islamic banks are still limited by distance, time and number of banks. The perception of students towards Islamic banks is still limited to legal aspects, namely products that are not usury and halal.

The views of the santri, which according to the author represent the perceptions of the students at the Al-Hikamussalafiyyah Wanayasa Purwakarta Islamic Boarding School, that the law of haram on interest as stated in the MUI fatwa has not been able to change the santri's belief about Islamic banking. Even though the santri support the fatwa on the prohibition of bank interest, the santri have not yet planned to switch to Islamic banks because the students are still unsure about the halalness of the profit sharing.

3.2. Attitudes of santri, ustadz and uaregivers of the cipulus wanayasa Purwakarta islamic boarding school of islamic boarding school

The theory regarding the operational concept of Islamic banks has fulfilled the actual principles of sharia, namely that banks collect funds from the public and channel funds to the community for halal businesses. However, respondents do not really understand the practice in the field, so the funds channeled to the community for halal businesses should also come from halal fundraising as well. However, in the practice of collecting funds, only a certain amount of savings is asked of the source of funds deposited by customers. Because of this, the boarding school community still doubts its syari'ah practice of the concept of raising funds.

Seeing the concept of Islamic banking that has developed, the pesantren (both santri and ustadz / kiyai), they are of the opinion that they have not fully complied with sharia principles. There are still rules of sharia principles that have not been used in the operational practice of Islamic banks, namely the qobul consent process between the bank and the customer making the transaction. One example, such as when a customer saves at a bank, there is no agreement between the bank and the customer, whether the customer wants to save with a wadi'ah or mudharabah contract or which contract. The customer is only presented with a paper containing the regulations from the bank to be approved and signed, then a stamp is attached, as if forced
to agree. Meanwhile, what is called a contract is when both parties say the consent qobul to obtain a mutual agreement. So there is a system of installments and profit taking in Islamic banks in general, Islamic banks have not fulfilled Islamic law. Meanwhile, what is taught in the pesantren, Islamic law is exemplified as the Prophet's behavior when congregating. At that time when the Prophet kept the money entrusted, of course the Prophet returned it completely without asking or taking a penny from a friend. However, if the bank does not have an installment or profit-taking system, there will be no funds to pay employee salaries. Not yet discounted ATM fees and transfers between different banks. This is what makes the students prefer conventional banks.

Based on the results of an interview with one of the employees from the Ministry of Religion of Purwakarta Regency, stated that Islamic banks in Indonesia are very helpful for the growth and equity of the National economy. The existence of doubts from some Muslim communities about Islamic banks and consider Islamic banks the same as conventional banks in general, this happens because of a lack of understanding of the essence of Islamic economics. In this case, of course, it takes hard work from Islamic banking actors to disseminate and educate the public about Islamic banking. From another opinion, it is also stated that the concept of Islamic banking is sufficient to comply with sharia principles or qirod rules, namely an alliance of two people, one as an investor, one as a business actor with an agreement of loss or profit being shared. However, they said that they did not have a clear source. It is only argumentative.

4 Conclusion and Suggestion

4.1 Conclusion

Based on the analysis above, the writing can draw the conclusion that, the perception of Al-Hikamussalafiyyah Cipulus wanayasa Purwakarta students both who are customers of Islamic banks and non-customers of Islamic banks, stated positive about the existence of Islamic banks. However, they are still not interested in joining Islamic banks because they see several considerations, such as the law of halal-haram, ATMs that are still rarely found and the santri population who are still comfortable with conventional banks. Meanwhile, the difference between customer and non-customer santri is in their attitude or choice to choose and not to choose an Islamic bank. The attitude and decision of the students not to choose an Islamic bank is influenced by the distance between the location of the Islamic bank and the uncertain legal basis. Meanwhile the students' decision to choose conventional banks was influenced by the ease of accessing conventional banks and their services. Even though the students' perceptions of bank interest are positive, it is not enough to convince students to choose Islamic banks.

The perceptions and attitudes of the Ustadz at the Cipulus Wanayasa Al-Hikamussalafiyyah Islamic Boarding School were positive, indicated by his agreement to the basic principles of Islamic banking. But in reality, the communication or promotion carried out by Islamic financial institutions is not optimal. Even though promotion is very effective for socialization, forming an image and changing people's behavior at the Cipulus Wanayasa Al-Hikamussalafiyyah Islamic Boarding School towards the Islamic financial system. Meanwhile, Islamic banks in the perspective of the Cipulus Wanayasa Purwakarta Alhikamussalafiyyah pesantren, even though the concept of Islamic banking is good, the current practice of Islamic banking still shows a mismatch with the existing Islamic concept.
4.2. Suggestion

The attractiveness of Islamic banks is of course influenced by the service factor and the ease of accessing the bank. Therefore, it is hoped that Islamic banks can continue to develop banking services, in this case, of course, it requires hard work from Islamic banking actors to disseminate and educate the public about Islamic banking and optimize the professionalism of their human resources, not only prioritizing halal principles, usury.

Researchers have high hopes, that for further research, similar research should be carried out in other Islamic banks by adding other factors that are considered more influencing customers to choose Islamic banks. In order to improve the Islamic banking system and to socialize its products, for the sake of the economic progress of Muslims.

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References

Metaphorical-Enactive: Al-Ghazali’s Education Media on Sufism Themes

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Abstract. This study aimed to explore and discuss the educational media used by Al-Ghazali relevant to essential concepts in Sufism. The role of the qalb in Sufism is very urgent in human life and for every Muslim. Because of this, Al-Ghazali has been very intense in describing this complex concept in the long discussion in his book. The explanation of qalb is fascinating and unique because al-Ghazali has managed to break down complex concepts into simple ones using the media he used. There are at least four media used to explain the miracle of the existence and the role of qalb in humans, namely 1) mirror, 2) kingdom, 3) fortresses, and 4) lakes. The data of this study were collected by a literature study, especially in the book Ihya ’Ulum al-Din Part III, and Bidayat al-Hidayah. The collected data were then read through Bruner’s Learning Media Theory. The results of the research showed that al-Ghazali used the media to convey Sufism concepts, such as 1) media objects familiar to people living in the 12th century (such as mirrors, fortresses, and lakes), 2) environmental media such as the environment of the community and the role of the apparatus. The media used by al-Ghazali can stimulate a detailed mental image from the lowest to the highest levels of ability, namely imagination (al-quwwah al-khayaliyah), estimation (al-quwwah al-wahmiyah), and thinking (aqliyah), which in Bruner's term is called metaphorical-enactive.

Keywords: Sufism, education media, learning media, qalb

1 Introduction

Tasawuf (sufism), as a science, has many concepts and terms [1]–[4]. Its spiritual terms are often abstract and confusing, especially for beginners (mubtadi’in). The concepts of spirit, soul, nafs, their potentials as well as how they work are often considered difficult and complicated matters [4]–[6].

For a teacher, the success of explaining concepts that students can understand is very important. To achieve student understanding, learning media is needed in the teaching and learning process. Basically, learning media is an intermediate "channel" (in Islamic term is called wasilah) used in the learning process in order to facilitate learners to successfully understand the concept. This understanding will encourage them to experience the knowledge (idrak) [7]–[9] and learners will continuously apply and embed it in their lives, which finally becomes their habit [10], [11]. Al-Ghazali has a unique strategy and media to explain the concepts in Sufism studies. This article will explore the style of media used by al-Ghazali in
relation to the delivery of Sufism concepts, which are very abstract, complex, and subtle, such as the concept of *qalb* (heart), its characteristics, and how it works.

2 **Method**

The data of this article were taken from al-Ghazali's work in *Ihya 'Ulum al-Din*, especially Book III. The collected data was sorted according to the relevance of data needs in this research. Furthermore, the data were analyzed using content analysis by Bruner's media theory and Ibn Sina's theory about learner modalities.

3 **Results and Discussion**

3.1 **Metaphor-Enactive Theories in Learning Media and Sufism Context**

Among the learning objectives is maturity, which is marked by a change in attitude, which basically can occur because of a change in consciousness [12]. This statement is in line with the opinion of Ibn Sina (d.1032), who said that someone's actions are usually based on perception, knowledge, or understanding (*idrak*). Change in consciousness usually starts with knowledge or understanding. Lickona formulates the degree of understanding from the knowing level to the feeling level, and the feeling will be compelled to doing [13]–[15]. This ongoing practice was originally formatted through the educational process [16], and then spontaneously attached to oneself, which is usually called character or morals.

In relation to enactive level, Gallager and Lindgren stated that enactive metaphors used in learning and the involvement of all parts of the body in the virtual environment and mixed reality can provide enhanced learning [24], [25]. In addition, Herik [26], [27] stated that learning will be more effective with an ecological-enactive approach, namely the delivery of concepts with words combined with attention action in the form of repetition of attitudes practiced by a person. Herik also wrote about enactive level in learning music [28]–[32]. Rojas explained that the use of enactive approaches for non-mathematical students is very good for describing a concept. [33], [34] in Jin research on Evolutionary Enactive Learning (EEL), it is indicated that EEL can be developed through ready machine-based learning techniques.

Sufism is the spiritual or esoteric aspect of Islam [35]–[39]. Sufism discusses the spiritual aspects of man and is connected with the Supreme Being, Allah, to obtain a noble character [40]–[45]. Important themes in the study and practice of Sufism include matters of self-struggle, heart management, and control of lust [46]–[50]. Therefore, the main theme of Sufism is
emptying the heart from badness (takhalli), filling the goodness of the heart (tahalli), and implementing goodness in the reality of life (tajalli) [51]–[54].

There are some key concepts that students (prospective Sufi) must understand before practicing spiritual empowerment. Among these concepts is a comprehensive understanding of the spirit, heart (qalb) and lust (nafs) along with their characteristics, attributes, and categories. Understanding concrete concepts about the heart will lead students to be able to recognize their characteristics, uniqueness, and categories.

3.2 Al-Ghazali’s Profil dan His Work

The full name of al-Ghazali is Muhammad bin Muhammad bin Muhammad bin Ahmad al-Thusi, who is known by the name laqab Abu Hamid. He was born in 450 Hijriyah / 1058 A.D in Thus, 15 miles north of Mashad, Iran [55], [56]. Nasab scholars argued about the origin of his name. The name al-Ghazali was partly based on his father's profession, al-Ghazzal, namely "the wool weaver" and partly attributed to his region, Ghazal [57].

Little Al-Ghazali learned from his father. He learned fiqh from his teacher, Shaykh Ahmad bin Muhammad al-Radzakani. Before passing away, his father entrusted him to a Sufi who was also a close friend of him. Al-Ghazali also learned from Imam Haramain in Nisabur until he mastered Syafi’i fiqh, manthiq, kalam, and philosophy. After his teacher died, al-Ghazali went to the camp of Wazir Nidzamul Mulk. There was a council of scholars. At that time, al-Ghazali challenged them to debate. By supplying the vastness of knowledge and mastering manthiq, al-Ghazali was able to defeat them. Finally, Nidzam al-Mulk appointed him as an instructor at its madrasah in Baghdad. In the year 484 H, al-Ghazali, who was at his 30s, headed to Baghdad to teach in a very prestigious madrasah at that time [58]–[61]. His career was brilliant in Baghdad, until he finally occupied the highest position in the "campus".

The high position actually took al-Ghazali into inner polemic, and eventually he resigned from the prestigious educational institution to uzlah and pursue the Sufi path. At Dzulqa’dah 488 H, he went on a pilgrimage. After the pilgrimage, he did not return immediately, but headed for Damascus instead. After that, he headed to Bait al-Maqdis for some time and returned to Damascus and performed i’tikaf in the western tower of the Damascus Mosque. Al-Ghazali sat a lot in the corner of the place of Shaykh Nashr bin Ibrahim Al Maqdisi in the Jami ‘Umawi Mosque (now called al-Ghazaliyah). He lived there and wrote the book Ihya Ulumuddin. Al-Ghazali lived in Syria for about 10 years [62], [63].

Al-Ghazali was a very productive writer. His works are numerous. Among his famous works are Arba’in fi Ush al-Din, Qawa’id al-'Aqa'id, Al-lgtishad fi al-I'tiqad, Tahafut al-Falasifah, Faishal al-Tafrijah Bain al-Islam wa Zanadiqah, al-Mustashfa min Ilm al-Ushul, Mi’yar al-llm, Ma’ariful ‘Aqliyah, Misykat al-Anwar, al-Maqshad al-Asna fi Syarhi Asma Allah al-Husna, Mizzan al-’Amal, al-Qisthas al-Mustaqim, Raudhat al-Thalibin wa Umdat al-Salikin, al-Risalah al-Laduniyih, Ihya’ Ulum al-Din, al-Munqidz min al-Dhalal, Bidayah al-Hidayah, and some other books which have significant influence to the global society [64]–[67].

3.3 Al-Ghazali’s Enactive-Metaphor About Qalb (Heart)

Al-Ghazali discussed Qalb in a long, wide and clear manner in Ihya Ulum al-Din Juz III. To make it easier for learners, al-Ghazali used metaphorical media in accordance with the circumstances of the 11th century AD when the book was written. Al-Ghazali's distinctive feature in explaining concepts is the use of metaphors and analogies that make it easy for
learners to grasp his ideas. Among the complex concepts explained clearly by al-Ghazali is the concept of qalb (heart).

In explaining the properties of qalb, al-Ghazali used 4 metaphors, namely qalb is like a mirror, a fortress, a kingdom, and a lake. These metaphors will be discussed and analyzed using modern instructional media theory from Bruner's theory and theoretical developments.

1. Metaphor # 1: Qalb is Like a Mirror

For al-Ghazali, qalb (heart) is the locus of knowledge (mahal al-ilm). Qalb is a subtle aspect that governs all parts of the body. It is the qalb that is obeyed and served by all parts of the body. His relationship with knowledge, qalb is metaphorized by al-Ghazali like a mirror. The mirror can catch colorful objects. In essence, these objects are knowledge, while the mirror is the heart. There are 5 (five) constraints for the mirror in capturing objects which are also the weakness of the mirror. It is as the constraints and weaknesses of the qalb in capturing the object of knowledge, wisdom, and guidance. These five constraints should be understood by mirror and heart users in order to maximize their role [68]. The five constrains are:

- The first constraint is imperfection, i.e., currently mirrors have not been completely manufactured. At that time the mirror was still in the manufacturing process at the factory and was still in the polishing process. In such condition, the mirror cannot reflect the image completely, it is not clear yet because the construction is not yet perfect. This situation is similar to the heart in the childhood phase. Children's hearts cannot fully grasp the object of ma’lumat (sciences) because these hearts are not yet perfect. Children's hearts are still on the way to perfection.

- The second constrain is the presence of dirt, stains, and mold that accumulate on the mirror surface. Even though the mirror is perfectly crafted, dirt, stains, mold can prevent objects from catching on the mirror. A dirty mirror cannot perfectly reflect the image of the object it captures. In this context, qalb will be constrained and even experience malfunction to capture knowledge, wisdom, and guidance because of dirt, stains, cloudiness, and mold. Dirt, cloudy, and fungus and other qalb diseases are caused by disobedience and evil aspects that accumulate on the surface of the qalb. Ugliness and immorality occur because of the wrong setting of lust. Stains and dirt that arise from ugliness and immorality can hinder the clarity and clarity of qalb in capturing knowledge, wisdom, and guidance.

- The third obstacle is that the mirror is moved or shifted so that the object that is actually being reflected does not enter the mirror frame, even though the mirror is very clear. Moreover, if the object in question is behind the mirror, the object will escape the mirror reflection. In other words, even though the mirror is very clear, it cannot reflect the object behind it. This is the same as qalb which does not face the object to be reflected, namely knowledge, wisdom, and guidance. Everything will not be caught by the qalb because of its existence behind the "frame" of the heart. Even if the qalb is clear, it will be empty of the essential object sought.

- The fourth constraint is a barrier (hijab) between the mirror and the object to be seen. One of the weaknesses of the mirror is that it cannot reflect on objects if there is a barrier or covering between the two. This is like qalb, he cannot grasp the object of knowledge, whether related to Allah (al-Haqq), knowledge, wisdom, and guidance, if there is a barrier between qalb and that knowledge. Among these barriers, in addition to lust, are old beliefs that cause stubbornness and pride.

- The inability of a person to direct the mirror to the desired object, so that the person has a difficulty using the mirror for his actual needs. It is the same as the qalb, in the
way that the person is not able to direct his heart to obtain ma’lumat (knowledge, wisdom, and guidance). To get information is nothing more than direct direction with precise precision, i.e., tazakkur atau tafakkur. Metaphorical media Qalb is like a mirror show in Table 1.

<table>
<thead>
<tr>
<th>No</th>
<th>Mirror</th>
<th>Qalb (Heart)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Can reflect physical objects (objects of shape and color) in front of it with some conditions.</td>
<td>Can reflect spiritual objects called ma’lumat (knowledge): divine (ilahiyah), knowledge, wisdom (hikmah), and guidance (hidayah) with some conditions.</td>
</tr>
<tr>
<td>2.</td>
<td>Condition # 1: The mirror that is still in the process of making, it cannot capture and cannot perfectly reflect the object because the mirror is not clear yet.</td>
<td>Condition # 1: Children’s qalb (shabiy) has not been able to grasp the spiritual object (ma’lumat) perfectly, because it's still at the stage of development.</td>
</tr>
<tr>
<td>3.</td>
<td>Condition # 2: A mirror that is dirty with smudges cannot perfectly capture the object in front of it, even though it is perfectly crafted. The more stains, the more malfunctioning the mirror will be to reflect.</td>
<td>Condition # 2: Dirty qalb caused by sin and immorality will not be able to capture ma’lumat of spiritual objects (tajalli/manifestasi ilahi, ilmu, hikmah, and hidayah), the more sins and immorality, the more malfunctioning in reflecting ma’lumat (knowledge).</td>
</tr>
<tr>
<td>4.</td>
<td>Condition # 3: A mirror is unable to capture objects behind it.</td>
<td>Condition # 3: Qalb can not catch the ma' lumat if it does not appear (iqbal).</td>
</tr>
<tr>
<td>5.</td>
<td>Condition # 4: A mirror cannot capture / reflect the desired object if it is covered with satyr (hijab).</td>
<td>Condition # 4: Qalb is unable to reflect on and capture spiritual objects (ma’lumat) if it is obstructed (veiled).</td>
</tr>
<tr>
<td>6.</td>
<td>Condition # 5: A mirror will be difficult to reflect objects permanently if, it is not focused on the object to be reflected.</td>
<td>Condition # 6: Qalb will find it difficult to capture spiritual objects if the owner is not able to focus his heart to see (musyahadah) spiritual objects (ma’lumat)</td>
</tr>
</tbody>
</table>

2. Metaphor # 2: Qalb is like a Fortress

In explaining the conflict between Satan and humans, Al-Ghazali explained that qalb is metaphorized by hisn (fortress) and Satan is his enemy. Satan wants to enter the fort and then take it over. Therefore, there was no other way for humans to guard the fort. For al-Ghazali, it is urgent for the fort owner to be safe from Satan's annexation.

In warfare, the fort is the last place of defense of a power. If other places as the territory of a power have been controlled by the enemy, then the fort is the last defense. If the fortress as the last place of defense has been controlled by the enemy, that power will end. Power ends and new powers change, that is, the territory is controlled by the enemy. The owner of power is captured and controlled by the enemy. In this context, the fort functions as a protector from enemies from outside (external enemies). As a shelter, the fort has a door to enter, it also has windows to watch the enemy's movements. After the owner enters and take cover in the fortress, the occupants of the fort must close the doors, the windows, and the other holes of the fort tightly, so that the enemy could not enter. The owner of the fort should never open doors, windows and other openings for the enemy in the shelter. If that is done, it will certainly be very
dangerous for the owner of the fort. The enemy will take control of the fort and take the owner of the fort. Likewise, *qalb* is analogized by al-Ghazali as a fortress. It is a treasure trove of treasures and humanity's last stand. If the other organs (eyes, ears, other senses and the nafs) have been controlled by the enemy, then the last line of defense is qalb. Qalb has doors and windows which must be closed tightly. This is intended to make the eternal enemy of humanity (Satan) unable to enter and unable to control humans through mastery of his qalb. The owner of qalb must never open the door of his qalb for the devil's entry. Among the main entries (*abwat ad-'adzimah*) for iblis (madakhil al-syaithan) are *al-ghadhab-syahwah* (anger and desire), *hasad wa al-hirs* (jealousy and greed), *al-siba’i min al-tha’ami* (stomach full of too much food), *hubb al-tazayyun* (fond of making up/decoration), *thuma’* (hope other than Allah), *al-ajalah* (hurries), *al-dahhim wa al-dananir* (money), *al-tawashshul wa al-ta’asshshub li al-madzahib* (fanatical on madzhab fiqh and kalam). Metaphorical media *Qalb* is like a fortress show in Table 2.

**Table 2. Metaphorical Media: Qalb is Like a Fortress**

<table>
<thead>
<tr>
<th>No</th>
<th>Fortress</th>
<th>Qalb</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>A place of shelter from enemies and a place to strategize against them</td>
<td>A shelter from enemies</td>
</tr>
<tr>
<td>2.</td>
<td>External enemy: invaders</td>
<td>External enemy: Satan</td>
</tr>
<tr>
<td>2.</td>
<td>Having doors and spots for stalking the enemy</td>
<td>Having doors and windows</td>
</tr>
<tr>
<td>3.</td>
<td>In order for safe protection, and avoiding enemies from controlling the fort, all entrances and holes in the fort must be closed tightly</td>
<td>For safe protection, and avoiding the devil from entering, all doors and windows must be closed tightly.</td>
</tr>
<tr>
<td>4.</td>
<td>Enemies can enter through the main door or other doors.</td>
<td>Among the the main entries (<em>abwat ad-adzimah</em>) are <em>al-ghadhab-syahwah</em> (anger and desire), <em>hasad wa al-hirs</em> (jealousy and greed), <em>al-siba’i min al-tha’ami</em> (stomach full of too much food), <em>hubb al-tazayyun</em> (fond of making up/decoration), <em>thuma’</em> (hope other than Allah), <em>al-ajalah</em> (hurries), <em>al-dahhim wa al-dananir</em> (money), <em>al-tawashshul wa al-ta’asshshub li al-madzahib</em> (fanatical on madzhab fiqh and kalam).</td>
</tr>
</tbody>
</table>

3. Metaphor #3: Qalb is Like a Kingdom

*Qalb* was metaphorized by al-Ghazali as King. The realm of the king is his body. In carrying out his duties, the King has assistants, namely prime minister (*wazir*), and soldiers (*al-jund*). The prime minister, or *patih* (Javanese language), is the king assistant to handle governance affairs. In his life, a king is accompanied by his wife(s), and there are the policemen of the kingdom to enforce the law.

The prime minister's job is to assist the King in government matters. He is usually assisted by ministers. In government affairs, they often have desires or targets. They have data about his reign to report to the king. The king will give the final decision of a problem in his kingdom. In the kingdom there are also evil servants who like to steal, rob, cheat and other evil deeds, so we need *syurthah* (police) or *jundun* (soldiers) to secure the kingdom and *bromocorah* (criminals). The expectations of a king is to achieve the welfare of his entire kingdom.
In a spiritual context, \textit{qalb} is the King. The king is in control of his physique. The prime minister is \textit{aql}. The king and prime minister are assisted by the \textit{jundun} (army). According to al-Ghazali, there are soldiers who can be seen with the naked eyes, and some that can be seen only with the heart's eye (\textit{al-bashirah}). All these soldiers were created by Allah to obey the King (\textit{qalb}). The soldiers that can be seen between the eyes are the hands, feet, eyes, ears, mouths, and all the physical parts of the body. Likewise, the inner qualities of each part of the body, such as the ability to strike for the hands, step for the feet, literacy for the eyes, hearing for the ears, and other ability of the five senses. Everything is formatted (\textit{majbul}) to obey the \textit{qalb}. If the \textit{qalb} says "literate", then the eyes immediately wake up [68]. In such context, al-Ghazali explained as follows:

وله جندان جند يرى بالأبصاروجند لايرى بالبصائروهوفى حكم الملك والجنود فى حكم الخدم

In addition to the five sensory aspects, there are spiritual soldiers, namely \textit{syahwah} and \textit{ghadhab}. Al-Ghazali described them as the companions of the King's (\textit{qalb}) journey to Allah. They were provided to serve the king. However, during the journey, the inner soldiers (\textit{syahwah} and \textit{ghadhab}) sometimes disobeyed the king. The dispersion of this army (\textit{syahwah} and \textit{ghadhab}) actually ruined the King's journey. The disobedience of lust and \textit{ghadhab} caused the king's journey to stop.

A conspiracy between criminals (evil royal citizens) and the authorities is very possible. Often in the kingdom there was an evil conspiracy between the King's wives, the prime minister, and the soldiers to undermine, overthrow, or control the king's power. This is in a spiritual context as well as a conspiracy between criminals (thieves, corruptors, \textit{jundun}-lust), and ministers (\textit{wazir, aql}) and soldiers (\textit{jundun ghadhab}). The plot against the king was complete. However, the king still had other inner soldiers who were still clear, namely knowledge and wisdom that could spiritually provide support for the king's journey [68].

The duty of \textit{jundun ghadhabiyah} is to maintain state security from crimes of lust (internal enemies) such as self-desire to steal, get drunk, rob, take drugs, and so on. In addition, soldiers (\textit{jundun}) are responsible with protecting the territory from enemy attacks from outside (foreign) such as the annexation of the territory and so on. However, if the \textit{quwaah ghadhabiyah} of this \textit{jundun} slips, a spiritual mafia phenomenon will occur, namely the conspiracy of the spiritual aspect to bend and arrest \textit{qalb} as its king in the spiritual realm. \textit{Aql} started getting drunk, cheating, stealing/corruption and other evil behavior, supported by \textit{syahwah} (desire for enjoyment), and supported by \textit{quwwah ghadhab} (1 / army). The king will be disturbed and even find it difficult to regulate the balance of his spiritual territory, or even the practical steps taken by the king is to follow the wishes of the mafia. The King will be crushed. The king lost his power because in fact he was governed by this spiritual mafia. Spiritual apparatus shows in Table 3.
Table 3. The Spiritual Apparatus

<table>
<thead>
<tr>
<th>No.</th>
<th>Spiritual Aspects</th>
<th>Metaphor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>al-Qalbu</td>
<td>King</td>
</tr>
<tr>
<td>2.</td>
<td>Mamlakah (kingdom)</td>
<td>Kingdom (al-badan)</td>
</tr>
<tr>
<td>3.</td>
<td>'Aql (al-'aql)</td>
<td>Wazir, patih, prime minister</td>
</tr>
<tr>
<td>4.</td>
<td>al-Jund al-dhahir and batin</td>
<td>The five senses and their functions</td>
</tr>
<tr>
<td>5.</td>
<td>al-Jund al-Bathini (syahwah, ghadhab, ilmu, hikmah)</td>
<td>Spiritual Soldiers (syahwah, ghadhab, Knowledge, hikmah)</td>
</tr>
<tr>
<td>6.</td>
<td>Ashab al-mirah al-tha’am, al-makr</td>
<td>Food thieves, rioters, criminals</td>
</tr>
<tr>
<td>7.</td>
<td>Al-Qasd, safar ila Allah</td>
<td>The purpose of journey is welfare</td>
</tr>
</tbody>
</table>

4. Metaphor # 4: Qalb is like a Lake

The heart is metaphorized by al-Ghazali like al-khawd (lake). This qalb metaphor is associated with qalb's ability to gain knowledge. Lake water usually comes from rivers whose water collects in the lake. The rivers flow from upstream to the lake. In the middle of a river trip, river water often carries garbage, dirt, scouring of the soil beside the river that is passed, and other types of garbage. At least there are two characteristics of a lake in relation to the flow of river water: a) its water is dirty because rivers bring all kinds of garbage with it, b) the volume of river water is sometime high and low. In rainy season, the volume of water is high, while in dry season, the volume is low. According to Imam al-Ghazali, to avoid the lake being contaminated by rubbish carried by river water, the effort that needs to be done is to close the river flow that carries the dirt to the lake. In order for the water to remain plentiful, the lake must be dug until the lake emits and spurts water from within. If this is done, the lake will be clean and water will be abundant at any time.

Qalb, for al-Ghazali, is like a lake. A lake is a source of water. this is the same as qalb. Qalb is the source and locus of knowledge. The peak of knowledge, namely ma'rifatullah, is in qalb. Knowledge that is in the heart can be obtained through the five senses (khawas al-khams), i.e. through sight, hearing, smell, touch, and taste, which are then processed by aql (both imaginative and estimated/wahmi) and then forwarded to qalb as its final estuary. This is often called special science (knowledge obtained through the senses through the learning process). Knowledge obtained through the five senses is often tainted with sensory wastes (both visual, auditory, tactical, and other sensory wastes).

Spiritual wastes that enter through these senses can then pollute the qalb. Qalb is veiled with spiritual waste which enters through sight, hearing, smell, touch and taste. Because the wastes enter through the five senses, the five senses must be closed with khalwat (seclusion). Through seclusion, one can: 1) close the rivers of senses that flow data mixed with waste to qalb through aql, 2) have the opportunity to dig a lake (qalb) with dzikrullah, then it will emit water from the existence of springs (a source of knowledge and wisdom) which can be obtained through ladunni knowledge (knowledge of khudhuri) resulted from closeness of a seeker to Allah. According to Imam al-Ghazali, there are two ways to gain knowledge, namely by learning (ta'allum) and by sharpening the qalb. A sharp qalb is like digging the ground to a certain depth which eventually emits water from within. Meanwhile, the acquisition of knowledge by learning (ta'allum) is done by utilizing and empowering the five senses (al-khawas al-khams). Knowledge obtained through the five senses contains waste of the five senses (visual, auditory, and tactile) and has a relatively shallow level of understanding and is less well-rooted. In the context of special knowledge with ta'allum level or scientific degree, it is usually only up to the
ain al-yaqin level (the level of belief based on sensory witnessing), even at the lower level, namely ilm al-yaqin (the level of belief based on perception). While the knowledge of khudhuri or inspiration or ladunni reaches the level of haqq al-yaqin (the level of belief based on actual facts). Metaphorical media Qalb is like the like show in Table 4.

Table 4. Metaphorical Media: Qalb is Like the Lake

<table>
<thead>
<tr>
<th>No</th>
<th>Al-Khawdh/Lake</th>
<th>Qalb</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Locus of water</td>
<td>Lokus ma’lumat (objek spiritual) meliputi: tajalli (manifestasi) ilahi, ilmu, ma’arifah, hikmah, dan hidayah</td>
</tr>
<tr>
<td>2.</td>
<td>The supply of lake water is from the rivers which flow to the lake.</td>
<td>Ma’lumat is supplied by five senses (al-khaws al-khams)</td>
</tr>
<tr>
<td>3.</td>
<td>Rivers</td>
<td>Five senses</td>
</tr>
<tr>
<td>4.</td>
<td>Rivers carry sewage, such as waste, soil, etc., which causes the lake dirty.</td>
<td>Ma’lumat in the qalb becomes dirty because of the contamination of the dirt of the five senses.</td>
</tr>
<tr>
<td>5.</td>
<td>The lake waste comes from river water which sweeps away various things waste, soil sediment, garbage, etc.</td>
<td>The spiritual impurities come from visual waste, auditory waste, and other waste that comes from the five senses.</td>
</tr>
<tr>
<td>6.</td>
<td>The way to stop river waste from entering the lake is by stopping the supply of river water that carries waste</td>
<td>The way to stop the waste that comes from visual, auditory, and other waste that comes from the five senses is by closing the five senses.</td>
</tr>
<tr>
<td>7.</td>
<td>Digging the lake to bring out a clear spring from within as the water supply, not from the river streams</td>
<td>Doing khawat with dzikir activities and good deeds to purify the knowledge and resulting in the absence of spiritual waste</td>
</tr>
</tbody>
</table>

3.4 Discussion

Imam al-Ghazali often uses metaphors to explain the concepts of Sufism [68]. There are so many themes in Sufism that are subtle and unseen. Usually a Sufi, like al-Ghazali, can understand this concept through riwayah (spiritual training) and spiritual practice [69]. The quality of understanding (level of haqq al-yaqin) about spiritual anatomy and its relations, as well as knowledge of Allah, can only be attained through direct experience (khudhuri), which in the terms of Bruner’s Learning Media Theory is called enactive (direct learning).

Furthermore, al-Ghazali shared the knowledge of the results of direct experience (khudhuri, enactive or direct learning) with students or colleagues with a conative approach. The technique used by al-Ghazali in conveying the concept of Sufism, especially the topic of qalb, is conveyed metaphorically enactive, i.e., the metaphor of direct experience.

According to Bruner, the learning media for enactive level involves all human modalities as learners, namely visual, auditory, and kinesthetic capital. With the combination of all these modalities, the concept can be better accepted compared to the iconic and symbolic levels [70]–[76]. In the implementation of his metaphorical-enactive message delivery, al-Ghazali empowered aspects as mentioned by Ibn Sina (d.1032 AD) with quwwah khayyaliyah (imaginative power) and quwwah wahmiyah (estimative power), and quwwah aqliyah (aqliyah
power). At the imaginative level, learners are invited to make metaphoric associations between the concepts in Sufi and their metaphors. Furthermore, students are invited to make estimates (analysis, consistency, and evaluation) of the metaphors understood at the hayyali level. The last stage is the stage of "decision making" from the knowledge obtained through the process of metaphoric association, analysis-synthesis-evaluation. This is the role of qiwwah aqliyah as the term introduced by Ibn Sina.

At the khayyaliyah (imaginative) level, al-Ghazali used mirror, kingdom, fortress, and lake as a metaphor for al-qalb. In the first level, students' imaginations will be invited to fly towards the metaphor of these objects. Furthermore, at the second level, wahmiyah (estimative), students are invited to analyze, detail, and synthesize the potentials inherent in these metaphorical objects. Finally, in the final stage (aqliyyah) students are invited to discover the real knowledge, nature, and reality to be understood and acted on. This is what Ibn Araby referred to as nadhari (theoretically understood reality) and amaly (action).

The power of metaphors in conveying messages (communication) can serve to affirm and imprint on the mind, belief, and behavior. Metaphors are capable of displaying, affirming, or growing character/quality through accentuating the qualities/characters of the entity [77], [78]. Metaphors are a form of human sophistication, because with metaphors humans use natural power, imagination (hayyaliyah), estimation (qiwwah wahmiyah), and the finding of behavioral wisdom (qiwwah aqliyyah).

4 Conclusion

Al-Ghazali used the media on Sufism themes which theoretically and practically could develop the abilities of human understanding. There are three powers that can be active with the media used by al-Ghazali, namely imaginative power (khayyaliyah), estimative (wahmiyah), and aqliyah, and this is what al-Ghazali called, which is the essence of man. The characteristics of the media used by al-Ghazali are: 1) universal (can be found everywhere), 2) lifelong (existing all the time), 3) always contextual, both traditional and modern. The metaphor-enactive used makes al-Ghazali media have a "comprehensive mental image" character.

References


The Role of Tax Incentives in Facing the Economic Downturn Amid the Covid 19 Pandemic

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Abstract. The Covid-19 pandemic has weakened the national economic sector. Not only Indonesia, the weakness in this sector was also felt by other countries. The government has returned to designing a strategy so that the economic recovery can run quickly. This is evidenced by data from BPS which records that household consumption fell from 5.02 percent in the first quarter of 2019 to 2.84 percent in the first quarter of this year. The second impact, namely the pandemic, causes prolonged uncertainty so that investment also weakens and has implications for the cessation of business. The third impact is that the entire world is experiencing a weakening economy, causing commodity prices to fall and Indonesian exports to several countries to stop. Tax incentives are one of the policy steps Therefore, this tax incentive regulation needs to be reviewed in terms of optimizing the empowerment of the business sector so that they can survive during the Covid 19 pandemic as it is today. To achieve this objective, this study uses an exploratory approach. With a qualitative exploratory method, this research produces analytical exploratory data. Activities in analyzing this include reducing the data obtained by looking at the concept and development of the application of tax incentives given to entrepreneurs in the midst of the Covid 19 pandemic and then comparing the benefits for entrepreneurs in maintaining their businesses in order to survive.

Keywords: Economy, covid-19, tax incentives

1 Introduction

In 2020, this is a tough year for the Indonesian people. This is because the Covid-19 pandemic that hit the world, including in Indonesia, has had a huge impact on all aspects of people's lives, especially in the health and economy sectors. In the health sector every day we always hear bad news. Indonesian citizens who are exposed to Covid-19 are increasing day by day, even though on the other hand, the number of recovered patients is also increasing. Not only in the health sector, the people's economy was also greatly affected by the sluggish economic growth during this pandemic. Many employers have gone out of business, even almost every day there are employees who are laid off, causing an increase in the number of unemployed. The government's economic growth target at the beginning of the year of 5.3 percent with an inflation rate of 3.1 percent is unlikely to be realized this year.

Various efforts have been made by the government to increase sluggish economic growth, one of which is in the taxation sector. The government through the Minister of Finance issued the Minister of Finance Regulation Number 23 of 2020 concerning Tax Incentives for Taxpayers
Affected by the Covid-19 Virus Outbreak. The provision of this incentive is a response from the government to the taxpayer's economy, which has dropped dramatically due to the pandemic. In accordance with this regulation, the incentives provided by the government are value added tax (VAT) and income tax (PPh).

First, the incentive value added tax (VAT) is not collected and value added tax (VAT) is borne by the government (VAT DTP). This is expected to provide a stimulus to the business world that is being affected by this pandemic. Second, the exemption of income tax (PPh) article 22 on imports or purchases of goods for handling Covid-19 by certain parties. Then, the exemption of Article 23 income tax (PPh) for domestic corporate taxpayers and permanent establishments (BUT). Then, the Article 21 income tax (PPh) exemption for individual domestic taxpayers who receive compensation from certain parties as compensation for providing services needed in the context of handling the Covid-19 pandemic. The provision of this incentive will last for six months, from April to September 2020. This means that after this regulation is passed, the submission of tax returns for the April to September 2020 period will begin to apply incentives to taxpayers who carry out the tax obligations stated in the ministerial regulation. finance (PMK).

In addition, to deal with domestic supply chain disruptions caused by slowing global economic growth due to the Covid-19 pandemic, the government provides incentives for companies receiving bonded zone facilities and/or ease of import for export purposes (KITE) as stipulated in PMK Number 31 / PMK. 04/2020 concerning Additional Incentives for Companies Recipient of Bonded Zone Facilities and or Ease of Import for Export Purposes for Handling the Impact of the Corona Virus Disease 2019 / Covid-19 Disaster. There is the hope of the state to maintain national economic growth while maintaining the business sector in Indonesia, therefore it is necessary to study the effectiveness of the carrying capacity of tax incentives in helping entrepreneurs in Indonesia to survive the current pandemic situation.

2 Method

This study uses an exploratory method. Regulations regarding taxation and aspects that affect the weakening of the national economy including the resilience of Indonesian businessmen will be explored and linked to the benefits of providing tax incentives by the government during the Covid-19 pandemic on the capacity to sustain the survival of businesses in Indonesia. After finding a balanced variable between the regulations regarding tax incentives and their benefits, it will be concluded how the carrying capacity of these regulations on the empowerment of entrepreneurs in Indonesia in maintaining their business during the Covid 19 pandemic.

3 Results and Discussion

The Corona Virus Disease 2019 (Covid-19) outbreak is a national disaster that affects national economic stability and community productivity. The Covid-19 pandemic has an impact on every aspect of life, be it social, political and economic, both national and international. All countries have experienced the impact of this disaster, so the government has paid attention to various sectors to be able to suppress the existence of a national economic slowdown.
There is a different system between corporate taxpayers whose status is UMKM and normal corporate taxpayers. This difference starts from the type of tax reporting letter, the amount of the tax rate, to the incentives provided by the government [1]. The tax incentive policies introduced by the government during the Corona or Covid-19 pandemic are considered relatively complete in maintaining the sustainability of the business world.

The government is trying to provide tax relief for businesses amidst domestic and global economic pressures. Estimated figures in 2018, the government provides tax incentives from income tax exemptions, free VAT, and free imported goods. The incentive is equivalent to 1.5 percent of gross domestic product (GDP). This figure can add to the tax ratio. If the tax ratio is 11 percent and the incentive is 1.5 percent, the potential tax on GDP could actually be 12.5 percent. Indonesia's tax ratio is already high. This achievement is the government's move to encourage tax collection by preparing tax incentives. The government, in this case, has also prepared many incentives for both the upstream industry, which are expected to benefit the downstream industry. Then the downstream industry has also prepared various incentives [2].

The tax incentives issued include exemption from Income Tax (PPh), Value Added Tax (PPN), to exemption from import duty on imports of certain goods. In 2018, fiscal incentives that have been provided by the government, such as tax holidays and tax allowances, are stated in the Minister of Finance Regulation Number 35 of 2018. Academics and consultants from Precious Nine Consulting assess that giving tax incentives is one of the government's realistic steps to maintain the sustainability of the business. However, the tax burden will also be relatively heavy if there is a surge in taxpayers with overpayment of tax payments to the state treasury. As a result, the work of tax officers will be drained for examining overpayment claims from taxpayers [3].

The Covid-19 pandemic that has occurred since the beginning of 2020 has put enormous pressure on world conditions, especially in the economic and health sectors. The latest 2020 global economic growth projections are negative or in recession. JP Morgan company predicts global economic growth of -1.1%. Meanwhile, The Economist Intelligence Unit predicts global economic growth of -2.2%. World institutions are changing strategies to maintain global financial stability and allocating financing to deal with the Corona virus from various directions. In Indonesia, all economic sectors are predicted to experience a decline. The Ministry of Finance projects that GDP growth will fall to 2.3%. The rupiah exchange rate against the dollar will increase to IDR 17,500. The inflation rate could touch 3.9%. The export sector can touch -14.00% and imports at -14.50%. The prediction of nominal GDP in 2020 could fall to IDR 16,829.8 trillion [4].

In the Annex to Permenkeu 23 / PMK.03 / 2020 regarding Tax Incentives for Taxpayers affected by the Corona Virus Outbreak, it explains the facilities, incentives and calculation methods:

a. PPh Article 21 facilities borne by the Government (DTP) for 440 taxpayers' KLU.

b. Article 22 Import Income Tax Exemption Facility, Reduction of Article 25 Income Tax Installment and Preliminary Refund of VAT Payment for 102 Taxpayer KLU.

As one way to support the prevention and handling of the Corona virus in Indonesia. Permenkeu 23 / PMK.03 / 2020 concerning Tax Incentives for Taxpayers Affected by the Corona Virus Outbreak should be grateful considering the severity of the impact and the devastation of the world economy due to the impact of the COVID-19 [5]. The considerations of Permenkeu 23 / PMK.03 / 2020 regarding Tax Incentives for Taxpayers affected by the Corona Virus Outbreak are:

Which affect economic stability and productivity of certain sectors;
b. that in order to maintain the stability of economic growth, people's purchasing power, and the productivity of certain sectors in connection with the Coronavirus Disease 2019 (COVID-19) outbreak as referred to in letter a, it is necessary to provide tax incentives in order to support the mitigation of the impact of the intended corona virus;

c. whereas based on the provisions of Article 6 letter e of Law Number 24 of 2007 concerning Disaster Management, the Government is responsible for disaster management including allocating adequate disaster management budget in the State Revenue and Expenditure Budget, as well as for implementing the provisions of Article 17C paragraph (7) and Article 17D paragraph (3) of Law Number 6 of 1983 concerning General Provisions and Tax Procedures as amended several times, most recently by Law Number 16 of 2009 concerning Stipulation of Government Regulations in Lieu of Law Number 5 of 2008 concerning the Fourth Amendment on Law Number 6 of 1983 concerning General Provisions and Procedures for Taxation into Law, Article 22 paragraph (2) and Article 25 of Law Number 7 of 1983 concerning Income Tax as amended several times, most recently by Law Number 36 of 2008 concerning the Fourth Amendment to Law Number 7 Tah un 1983 concerning Income Tax, and Article 9 paragraph (4d) of Law Number 8 of 1983 concerning Value Added Tax on Goods and Services and Sales Tax on Luxury Goods as amended several times, most recently by Law Number 42 of 2009 concerning Third Amendment to Law Number 8 of 1983 concerning Value Added Tax on Goods and Services and Sales Tax on Luxury Goods, it is necessary to regulate the provision of tax incentives for taxpayers affected by the corona virus outbreak;

d. that based on the considerations as referred to in letter a, letter b, and letter c, it is necessary to stipulate a Regulation of the Minister of Finance concerning Tax Incentives for Taxpayers Affected by the Corona Virus Outbreak [6]

Based on taxation theory, one of the tax functions is to raise state revenue and use it in development. However, the tax function can also provide regulations to help people in social and economic matters. Current tax incentives lead to regulatory functions with the aim of helping to move the wheels of the country's economy. Currently, Indonesia's economic condition is very worrying. The economy was running slowly, followed by the weak exchange rate of the rupiah against the United States dollar (Rp. 16,500 / US $). On the other hand, people's purchasing power has also decreased. Therefore, in order to maintain the stability of economic growth, people's purchasing power as well as industrial productivity, the government issued regulations aimed at empowering the community. No exception with the tax aspect, a few days ago, on March 21, 2020, the Minister of Finance issued the PMK 23 / PMK-03/2020. This regulation is entitled Tax Incentives for Taxpayers Affected by the Corona Virus Outbreak [6]

The tax policy statement has been classified according to OECD data found that as many as 7 policies related to tax relief are directly related to corporate income tax, personal income tax and consumption tax in terms of import costs of consumer goods. Then each of 2 tax policies related to tax deferral and tax refunds. There is one tax policy that is very helpful for taxpayers, especially corporate taxpayers, in reducing the corporate income tax rate. This step is taken by the government to help and protect the taxpayer's business from the liquidation that in the future it will be even more severe. Tax-related policies, taken with the main objective by the government, are the basis that is affected by the COVID-19 pandemic, which is related to supporting the Health system which assists in handling and overcoming the COVID-19 pandemic outbreak. The government provides tax incentives for goods and services intended to tackle the COVID-19 pandemic, including value added tax, business income tax and import tax issued by PMK No. 28/2020. [7]
PMK 23 / PMK03 / 2020 provides tax incentives on income tax (PPh) article 21, namely employee tax objects, income tax (PPh) article 22, namely the tax object on imports, income tax article 25, installments of tax and value added tax (VAT) in the event that accelerate the return (refund) of overpayed VAT. The limitation made in this regulation is for PPh 21 with the criteria for employees whose gross income is not more than 200 million rupiah per year or 16.6 million rupiah per month. Whereas for PPh 25, the tax installment is reduced by 30%, PPh 22 is exempted, all of these incentives are valid for 6 months, starting from April 2020 [8].

However, not all business sectors receive this tax facility. Only certain industrial sectors and for taxpayers with the status of ease of import for export purposes (KITE) and KITE IKM, namely ease of import for export destinations for small and medium industries. If it describes the objectives of this regulation, for example for PPh 21, so that workers in the management industry sector, especially factories with a significant number of employees, can maintain purchasing power. Meanwhile, PPh 22 aims to provide a stimulus for the industry concerned to maintain its import rate. PPh 25 aims to stabilize the domestic economy and increase exports.

Regulations for accelerated VAT refunds aim to help taxpayers be more optimal in cash management and help taxpayers' cash flow amidst these difficulties. One of the tax functions is to raise state revenue and use it in development, but the tax function can also provide regulations to help people in social and economic matters. This Regulation of the Minister of Finance shows the positive aspects that are given to the public, especially to the business world, to keep it running. However, the government still needs to study to add new business sectors in order to get tax incentives. The new business sector that can receive this tax facility still needs to be expanded, because the impact of the Covid-19 pandemic is not only certain industrial sectors (management), KITE and KITE IKM. However, almost all sectors, including the service sector, the property sector, the tourism sector and many other business sectors have been hit at this time. The economy has a multiplier effect, such as a chain that is interrelated with one another. So if there is an economic downturn in some fields, this will automatically affect other sectors, either directly or indirectly. As with the tourism industry, it is experiencing a decline because at this time it is because most people (almost all) want to be at home to be safe from Covid-19 transmission. The tourism industry has many derivatives such as travel agencies, hotels, and restaurants in tourist attractions, as a result this sector is definitely drooping today.

One of the sectors that have experienced severe shocks due to the COVID-19 pandemic is the tourism sector [11]. According to KADIN, this blow was also experienced by derivatives of the tourism sector such as hotels, restaurants, transportation, airlines and this impact was also experienced by Micro, Small and Medium Enterprises (MSMEs). Whereas the tourism sector has an important role in the Indonesian economy [9]. Based on data on market expectations, the hotel industry experienced a decrease in total revenue due to the impact of the Covid-19 coronavirus by minus 25% to minus 50%, likewise the restaurant industry experienced a decrease in turnover by 25% to 50% compared to sales at the time. normal conditions. So from the data and arguments above, it is necessary to add a business sector variable that gets tax incentives for the Covid-19 pandemic, because all sectors are experiencing a decline and sluggishness. However, the tax incentive policy must be reviewed because this will significantly erode tax revenue. For example, PPh 21 or PPh on employee income, in 2019 the actual revenue was IDR 148.63 trillion. If tax incentives are given for the PPh 21, the state will lose quite a lot of its income. Indeed, it is expected that this will bounce off the increasing purchasing power of the community so that there will also be an increase in VAT receipts because people will consume goods, but the effect of this will not necessarily happen [10]. This condition is inversely proportional to the tax incentives that will reduce state income, currently the government needs a lot of funds to subsidize food, medicine as well as medical facilities to tackle Covid-19. So mature steps are
needed in making policies, especially tax regulations so that they can have a positive impact on the economy of the people at large. However, to save the national economy, especially from the business sector, the provision of tax incentives is very helpful for entrepreneurs in solving taxation problems, especially in reducing the income tax burden, which in the current covid 19 pandemic, the entrepreneur's own income has decreased drastically and even threatens the sustainability of the business to continue being able. run.

References


Fruit and Vegetable Consumption in Relation to Nutritional Status of Women of Childbearing Age in Yogyakarta City

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{hastin_dk@yahoo.com¹}
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Abstract. Riskesdas 2018 reported that less fruit and vegetable consumption to people in the age of more than 5 years reached 95.5 percent. Meanwhile the number of over weight gain and obesity keep increasing to 35.4 percent. In 2018, the number of obesity in Yogyakarta City is 26.9 percent, higher than the total number nationally. Fruit and vegetables consumption is one of the way to fill the balanced nutritious, maintain health and keep the body weight. This study is a cross-sectional research to the Women of Childbearing Age aged 15-50 years old in Yogyakarta City. The total sample is 234 women. The measured variables are body weight, body height, and food frequency. Result In this research, there are 6.7 percent thin women, 42.5 percent in normal weight, 33.3 percent in over weight and 17.5 percent in obesity. Based on the chi square test result, it is found that there is a significant relationship (0.009<0.05) between fruit consumption and nutritional status meanwhile the vegetable consumption has no significant relationship (0.301>0.05) with the nutritional status. There ia a significant relationship (0.003<0.005) between vegetable consumption and age. Conclusion The fruit consumption has a significant relationship to the nutritional status and significant relationship between vegetable consumption and nutritional status of Women of Childbearing Age in Yogyakarta City.

Keywords: Fruit and vegetables consumption, nutritional status, women of childbearing age

1 Introduction

Nowadays, in Indonesia there are multiple nutrition problems, which is still found the lack of nutrition or stunting, and the increasing over nutrition problems. Over nutrition occurs to people in the age more than 18 years old reaching 13.6 percent and obesity reaches 21.8 percent [1]. Obesity is more likely related to the unbalanced intake and released energy. Moreover, it is explained that obesity is related to age, gender, economic status, job, biscuit and bread eating habit, and smoking habit [2]. The long-term impact of overweight and obesity is the increasing risk of incidence of non-communicable diseases such as diabetes mellitus, hypertension, and heart disease [3].

The increasing prevalency of non-communicable disease in Indonesia, is affected to the improvement of health public service by both community and the state. This is inseparable from the change into the less active lifestyle and the change of food consumption containing high
sugar and low fiber. Riskesdas 2018 stated that the low prevalency of fruit and vegetable consumption in people older than 5 years old reached 95.5 percent. Fruit and vegetable contains fiber, vitamin and mineral that cannot be found in other food products. Nutritional content that is in fruit and vegetable potentially maintains body weight from obesity and overweight [1], [4]. Meanwhile, the recommended fruit consumption that can help to prevent chronic disease is about 400-600 grams per day [5].

Unprocessed fruit contains lower energy and higher fiber affected to the increased satiety and delay hunger [4]. Study towards high school students shows that the habit of fruit and vegetable consumption is affected by media exposure, nutrition knowledge, and parent’s opinion [5]. In line with this study, a study in China reported that an increase in fruit and vegetable consumption in adult males is inversely related to body weight, and in adult females there occurs covering effect to the disease since there is an increase of fruit and vegetable consumption [6]. Meanwhile, on children with asthma, consumption of fruit, nuts and green vegetables and root are related significantly to the weight loss [7].

Riskesdas 2018 stated that the prevalency of obesity in Yogyakarta City is 26.9 percent higher that the number in national level which is 21.8 percent, based on gender, women suffer from non-communicable diseases (1,78 percent) than men. Based on age, the age group 15-64 years has a greater prevalence contracting non-communicable diseases (11,52 percent) than other age groups [1]. This condition need attention because it is related to the increasing number of non-communicable diseases so it needs further study about the factors related to the obesity condition such as the habit of consuming fruit and vegetable. The purpose of this study is to know the relation of fruit and vegetable consumption to the nutritional status woman of childbearing age in Yogyakarta City.

2 Methods

The design of the research is a cross sectional study with samples of women of childbearing age around 15-50 years old. The total sample is 234 women. The collected data includes age, anthropometry which is body weight and height and the habit of food consuming especially fruits and vegetables. The data is a part of a study entitled Relation of Iodine Status to the Thyroid Function in Yogyakarta City, Purworejo Regency and Bukittinggi City [8].

The age data is gained by counting the respondents age based on the date of born, the data of body height is counted by using microtoise, the data of body weight is gained by measuring the respondents body weight by using AND brand digital scales with accuracy of 0.1 gram, data of nutritional status is gained by counting IMT based on the body height and body weight, data of dietary pattern is gained by using food frequency questionnaire semi quantitative which there is a habit of consuming fruits and vegetables. The gained data then is processed by using Chi Square test.

3 Results and Discussion

3.1 Results

The counting result of nutritional status based on the body mass index can be known that there is 21 percent obesity lower than Riskesdas result in 2018. Overweight in women of
childbearing age in this study is still high, which is 33.3 percent. The data of nutritional status can be seen in Figure 1.

**Fig. 1.** Nutritional Status of Women of Childbearing Age

In this research, the respondents who often consume fruit are 31.2 percent than consuming vegetable (29.5 percent), meanwhile the respondents who always consume fruit are 22.2 percent than consuming vegetable (21.4 percent). The respondent’s data of fruit and vegetable consumption completely is in Table 1 and 2.

**Table 1.** Relationship between Vegetable Consumption and Nutritional Status on the Woman of Childbearing Age

<table>
<thead>
<tr>
<th>Nutritional Status</th>
<th>Vegetables</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>(p)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rarely/Never</td>
<td>Sometimes</td>
<td>Often</td>
<td>Always</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thin</td>
<td>2</td>
<td>5</td>
<td>1</td>
<td>4</td>
<td></td>
<td>0.301</td>
</tr>
<tr>
<td>Normal</td>
<td>27</td>
<td>33</td>
<td>22</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overweight</td>
<td>22</td>
<td>22</td>
<td>15</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Obesity</td>
<td>7</td>
<td>13</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 2.** Relationship between Fruits Consumption and Nutritional Status on the Woman of Childbearing Age

<table>
<thead>
<tr>
<th>Nutritional Status</th>
<th>Fruits</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>(p)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rarely/Never</td>
<td>Sometimes</td>
<td>Often</td>
<td>Always</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thin</td>
<td>2</td>
<td>5</td>
<td>5</td>
<td>2</td>
<td></td>
<td>0.009</td>
</tr>
<tr>
<td>Normal</td>
<td>17</td>
<td>32</td>
<td>24</td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overweight</td>
<td>8</td>
<td>27</td>
<td>24</td>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Obesity</td>
<td>15</td>
<td>9</td>
<td>11</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Based on the chi square analysis result, vegetable consumption is not related to the nutritional status \((p>0.05\)), meanwhile the fruit consumption is significantly related to the nutritional status \((p<0.05\)). Vegetable consumption is significantly related to the respondent’s age \((p<0.05\)), while fruit consumption is not significantly related to the respondent’s age \((p>0.05\)). Respondents who always consume vegetable are mostly found in the age group >40
years old which is 8.6 percent. While the respondents who rarely/never consume vegetable are found in the age group of 31-40 years old is 11.9 percent. Fruit and vegetable consumption based on the age group in woman of childbearing age show in Table 3.

Table 3. Fruit and Vegetable Consumption based on the age group in Woman of Childbearing Age

<table>
<thead>
<tr>
<th>Age Group</th>
<th>&lt; 20 years old</th>
<th>21-30 years old</th>
<th>31-40 years old</th>
<th>&gt;40 years old</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fruit (%)</td>
<td>Vegetable (%)</td>
<td>Fruit (%)</td>
<td>Vegetable (%)</td>
</tr>
<tr>
<td>Rarely/never</td>
<td>2.2</td>
<td>4.9</td>
<td>3.8</td>
<td>1.1</td>
</tr>
<tr>
<td>Sometimes</td>
<td>3.8</td>
<td>1.1</td>
<td>4.3</td>
<td>4.9</td>
</tr>
<tr>
<td>Often</td>
<td>1.6</td>
<td>0.5</td>
<td>5.4</td>
<td>5.4</td>
</tr>
<tr>
<td>Always</td>
<td>1.1</td>
<td>2.2</td>
<td>1.6</td>
<td>3.8</td>
</tr>
</tbody>
</table>

3.2 Discussion

Overweight and obesity in Yogyakarta City in this research reach 33.3 percent and 17.5 percent. The obesity prevalence in this study is lower that the number in Riskesdas 2018. Along with this study, another researcher stated that the obesity is higher happened in city than in countryside. It is related to the citizen lifestyle who tend to eat fast food, lack of activity due to a sedentary lifestyle, use electronic equipment, and vehicle [2]. Other researchers also stated the similar thing that overweight in city is higher (27.02 percent) that overweight in countryside (18.48 percent). Overweight is mostly found more in women than men [9]. The body composition of females has more fat than muscles. The fat composition of females is 6-11 percent more than males. Females also have hormone estrogen so it tends to keep and maintain fat [10]. The weakness in this result is not doing the determinant factors analysis from the obesity such as obesity history in the past, physical activity, and other factors.

Fruit and vegetable is an important component of balanced nutrition that can be used as the primary food or even snacks. Fruit and vegetable contains vitamin, mineral, fiber and other photochemistry component that is beneficial to the body. Increasing fruit and vegetable consumption is a good way to optimize health and prevent chronic disease [11]. In this study, the fruit consumption is significantly related to the nutritional status of woman in fertile age, while consuming vegetables is not related. The weakness of this study is not counting the fiber intake from consumed vegetable and fruit so it is unknown whether the fiber intake in consumed vegetable and fruit is different or not. Fiber content in fruit will be dispersed into water, and form gel that is used to slow gastric emptying. Besides that, fermented fiber in the digestive tract will help the metabolism of carbohydrate and fat [12]. Other researcher stated that consuming fruit daily give less risk of being overweight 1.99 times lower than not consuming fruit, and have 2.49 lower risk of being obesity than not consuming fruit [2].

Along with this research, a study in Europe reported that there is an inverted relation between women weight gain with the consumption of fruit, vegetable, food sources of fiber and whole wheat [13]. Different result reported by other researcher, that consuming fruit and vegetable in adult women does not show any relationship with overweight level, caused by the few amounts of fiber consumption from fruit and vegetable [14]. Weight loss and keep the body weight to not gain done by decreasing energy intake, increasing energy output, and level out the fat stock. Having a habit of consuming fruit, vegetables, seeds and nuts that contain vitamin, mineral, and beneficial fiber to help weight loss and help maintaining the body weight. So, it does not only decrease the energy intake, but also, we should choose the food product with lower energy density like fruit and vegetable [12].
This research reported that consuming vegetable is significantly related to the respondent’s age. The respondent’s prevalence that is often and always consuming vegetables is higher in the age of more than 30 years old. Along with the research, other researchers reported that the proportion of citizen consuming vegetable more is in the adult group [15]. Supporting the result of this research, the study in Yogyakarta City about the habit of eating fruit and vegetable in teen age stated that the teenagers consume less vegetable with some reasons like the plain taste, the habit of consuming fast food as it is more practical and highly parent’s opinion that the can buy various kinds of food based on their preference [16].

4 Conclusion

Consuming fruit is significantly related to the nutritional status of fertile age women, and consuming vegetable is also significantly related to the fertile age women in Yogyakarta City.

References

European population: result from the project on diet, obesity, and genes. *Am J Clin Nutr.* 2009; 90: 202-209


The Affecting Factors of Implementation of Expanding Maternal and Neonatal Survival Program in Determining Midwifery in Kebumen, Indonesia

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Abstract. Maternal mortality rate has notably decreased after the implementation of the Expanding Maternal and Neonatal Survival (EMAS) program that manages to increase the effectiveness and accountability of midwives’ performance. The study aims to investigate factors affecting the implementation of the Expanding Maternal and Neonatal Survival (EMAS) program in midwives’ performance. This study applied a cross-sectional design. It involved 822 midwives. The data were collected from demographic information about midwives’ performance. Then, the obtained data were analyzed using bivariate analysis techniques to show the relationship between the dependent and independent variables. It used a non-parametric test of two independent samples with Chi-Square with a significance limit or p-values of <0.05 and Confidence Interval (CI) of 95%. There was a relationship between training, supervision, motivation, and midwives’ performance. The study revealed the detail values for training (p-value: 0.047, OR: 4.48, 95% CI: 1.016-19.723), supervision (p-value: <0.001, OR values: 6.83, 95% CI: 2.625-17.747), and motivation (p-value: 0.002, OR: 4.08, and 95% CI: 1.709-9.756). Midwives’ performance becomes an issue in the implementation of EMAS program. Midwives have to improve their attitudes and motivation in working for the implementation of this program.

Keywords: Midwifery, Expanding Maternal and Neonatal Survival program, Performance

1 Introduction

In 2017, approximately 810 women died from preventable causes related to pregnancy and childbirth [1]. At the same time, between 2000 and 2017, Southern Asia achieved the highest overall reduction in the maternal mortality rate of 60% (from 384 to 157). Additionally, four other sub-regions roughly halved their maternal mortality rate during this period, namely, Central Asia, Eastern Asia, Europe, and Northern Africa. Overall, the maternal mortality rate in less-developed countries declined by lower than 50 % [1].

In Indonesia, the success of maternal health efforts can be seen from the indicators of maternal mortality [2]. The indicator of maternal mortality is the number of maternal deaths during pregnancy, childbirth, and post-partum period caused by pregnancy, childbirth, and post-partum period or its management except for other causes such as accidents or falls in every 100.000 live births [3]. Indeed, those indicators are not only used to assess maternal health programs, but also to assess the level of public health due to its sensitivity to improve health services, both in terms of accessibility and quality [2]. In general, there has been a decline in the maternal mortality rate in Indonesia from 390 cases in 1991 to 305 cases in 2015 [4].
In 2012, the Ministry of Health of the Republic of Indonesia launched a program called Expanding Maternal and Neonatal Survival (EMAS) to accelerate the reduction in maternal and neonatal mortality rate. This program aims to improve the quality of obstetric emergencies and newborn services as well as to strengthen an efficient and effective referral system between midwives, primary health care, and hospitals [4]. Efforts to accelerate the reduction in maternal mortality can be carried out by ensuring that every mother can access quality maternal health services, such as antenatal care, birth delivery assisted by trained midwives in health care facilities, postpartum care for mother and baby, special care and referral if any complications, ease of maternity leave, and family planning services [5]. The following section presents maternal health efforts consisting of maternal health services, Tetanus Toxoid immunization services for women of reproductive age and pregnant women, childbirth service, postpartum services, and the implementation of Kelas Ibu Hamil (pregnancy class) and childbirth planning programs by village midwives to prevent complications, and contraceptive services [6].

Health service performance is an important factor in efforts to improve the quality of public health [7]. The low performance of health services can be seen from the antenatal services performed by village midwives based on the indicator of the proportion of childbirth assistance. The presence of midwives in the villages is expected to overcome geographical disparities, while midwife contact with the community is expected to reduce health information gaps [8]. Placement of midwives in villages and the level of utilization of midwifery services are influenced by the age and ability of the midwives. They become determinant factors for the community’s acceptance [6].

First Visit (K1) is the patient’s first visit to the health care worker/facility, while Fourth Visit (K4) is the patient’s fourth visit to the health care worker/facility [9]. K1 coverage is the number of pregnant women who have accessed antenatal care for the first time compared to the target number of pregnant women in a working area during a year [10]. On the other hand, K4 coverage is the number of pregnant women who have accessed standard antenatal care at least four times based on the recommended schedule in each trimester compared to the target number of pregnant women in a working area in a year [9]. The indicator shows access to health services for pregnant women and their compliance in accessing antenatal services. During 2006-2017, the K4 coverage tended to increase even though 11 provinces have not reached the target [11].

The challenges on the implementation of health services for pregnant women are not only access but also the quality of services [12]. Indeed, the quality of services has to be improved, including the provision of all health services components for pregnant women during the antenatal visit [13]. In terms of availability of health facilities, up to December 2017, Kebumen District has 544 village midwives, and 5 of them working in remote areas [14]. Ideally, the village midwives have to be supported by good accessibility, particularly related to geographical aspects and better transportation infrastructure [9].

Based on the data of the Ministry of Health of the Republic of Indonesia, 83.67 % of pregnant women whose childbirth was assisted by midwives including village midwives in the health care facilities [15]. Analysis of maternal mortality rate proved that the maternal mortality rate is closely related to the presence of the midwives and available facilities [15]. Childbirth assisted by a midwife showed a significant contribution to the reduction of maternal death risk. Besides, if the childbirth is performed in a health facility, it can reduce the maternal death risk too. Therefore, this study aims to investigate factors affecting the implementation of the Expanding Maternal and Neonatal Survival (EMAS) program and midwives’ performance.
2 Method

This cross-sectional study collected data by distributing a questionnaire via the internet. The data collection was started on May 7, 2019, and completed on November 28, 2019. The researcher shared the questionnaire link from Questback.com on Facebook pages. It was conducted in Kebumen District, Central Java Province. This district covers 26 sub-districts and 449 villages with a total of 1420 midwives. It involved 822 samples selected using purposive sampling techniques. The inclusion criteria were village midwives working for ≥ 1 year with good reading and writing skills and willing to participate in the study. In the last section of the questionnaire, the respondents were required to respond to questions regarding the appropriateness of midwife performance, age, tenure, education, training, rewards, supervision, facilities, leadership, attitude, and motivation. The midwife performance questionnaire covered 10 closed questions with a Likert scale ranging from 1-5 where 5 is for strongly agree and 1 is for strongly disagree. Then, the response was categorized into 2, Low (average score <80%) and High (average score >80%). The question concerning the knowledge consisted of 8 closed with the same Likert scale with 3 categories of responses, less (a total score of 1-14), Sufficient (a total score of 15-27), and Good (a total score of 28-40). The question concerning motivation consisted of 8 closed questions with the same Likert scale and the response was categorized into 2, Low (a total score of <60%) and High (a total score of >60%). The question concerning leadership consisted of 6 closed questions with the same Likert scale with 2 categories of responses, Low (a total score of <60%) and High (a total score of >60%). This research was approved by the Ethical Committee of Sekolah Tinggi Ilmu Kesehatan Muhammadiyah Gombong, Indonesia and it used guidelines from the Declaration of Helsinki. It was declared that there was no conflict of interest.

Statistical Analysis, this study used STATA (version.13; College Station, TX, USA: Stata Corp) to analyze the data. The data were analyzed using a quantitative approach including univariate analysis and bivariate analysis. The data were analyzed to identify factors affecting the performance of village midwives in the implementation of EMAS program in Kebumen District, Central Java Province, Indonesia. In particular, the univariate analysis was to examine a description of the frequency distribution between independent and dependent variables as well as the variation of each variable. Bivariate analysis was performed to show whether there is a relationship between the dependent variables and independent variables performed using statistical testing procedures/hypothesis. It applied a non-parametric test namely Chi-Square to test two independent samples with a significance p-value of 0.05 and Confidence Interval (CI) of 95%. The test shows a significant relationship if the p-values are < 0.05, otherwise, it shows a non-significant relationship if it is > 0.05.

3 Results and Discussion

3.1 Result

In this study, the midwives’ performance refers to the result of midwives’ activities in performing services in the villages based on the cumulative results of K4 coverage. Based on these indicators, if K4 and childbirth services performed by midwives reach the target, then the performance will be categorized as ‘good’. On the other hand, if the K4 and childbirth services do not reach the target, then it is categorized as ‘Less’. Based on Table 1, the coverage of K4
<95% was 246 (29.9 %), lower than the coverage of K4≥95% with 576 (70.1%). It means that K4 coverage in Kebumen District is mostly in accordance with the target of minimum service standard. The childbirth services assisted by midwives reached 480 (58.4 %) while childbirth without the assistance of midwives reached 41.6%. It means that the coverage of childbirth services assisted by midwives can be categorized as ‘Good’ and appropriate with the target.

Table 1. Characteristic and Midwives performance

<table>
<thead>
<tr>
<th>Variable</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>K4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>≥ 95%</td>
<td>576</td>
<td>70.1</td>
</tr>
<tr>
<td>&lt;95%</td>
<td>246</td>
<td>29.9</td>
</tr>
<tr>
<td>Giving Birth in Midwifery</td>
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<td></td>
</tr>
<tr>
<td>≥ 90%</td>
<td>480</td>
<td>58.4</td>
</tr>
<tr>
<td>&lt;90%</td>
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<td>41.6</td>
</tr>
<tr>
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<tr>
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</tr>
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<td>Good</td>
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<td>29.2</td>
</tr>
<tr>
<td>Age (years)</td>
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<tr>
<td>22-31</td>
<td>342</td>
<td>41.6</td>
</tr>
<tr>
<td>32-41</td>
<td>480</td>
<td>58.6</td>
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<tr>
<td>Tumure (years)</td>
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<tr>
<td>1-9 years</td>
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<td>10-18 years</td>
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<td>Good (7.6-10)</td>
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<td>414</td>
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</tr>
<tr>
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<td>408</td>
<td>49.6</td>
</tr>
<tr>
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<td>Good</td>
<td>468</td>
<td>56.9</td>
</tr>
<tr>
<td>Facilities</td>
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<td></td>
</tr>
<tr>
<td>None</td>
<td>24</td>
<td>2.9</td>
</tr>
<tr>
<td>Less</td>
<td>564</td>
<td>68.6</td>
</tr>
<tr>
<td>Complete</td>
<td>234</td>
<td>28.5</td>
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<tr>
<td>Leadership</td>
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<td></td>
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<tr>
<td>Low</td>
<td>408</td>
<td>49.6</td>
</tr>
<tr>
<td>Good</td>
<td>414</td>
<td>50.4</td>
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<tr>
<td>Attitude</td>
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<tr>
<td>Negative</td>
<td>402</td>
<td>48.9</td>
</tr>
<tr>
<td>Positive</td>
<td>420</td>
<td>51.1</td>
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<tr>
<td>Motivation</td>
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<td></td>
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<tr>
<td>Low</td>
<td>342</td>
<td>41.6</td>
</tr>
<tr>
<td>Good</td>
<td>480</td>
<td>58.4</td>
</tr>
</tbody>
</table>
The midwives’ age ranges from 22-41 years. The Skewness test showed that the age distribution was normal (Skew: SE Skew = -0.246; 0.207 = -1.188). In the analysis, the respondents were grouped into two age groups, 22-31 years and 32-41 years.

The tenure was grouped into two, 1-9 years and 10-18 years. Midwives with a tenure of 1-18 years showed detailed values of the mean (10), median (12), mode (16), and SD (6.27). In addition, the Skewness test showed that the age of midwives was normally distributed (Skew: SE Skew = -0.071: 0.207 = -0.343). The study revealed a total of 426 midwives (51.8 %) with 10-18 years of tenure and 396 midwives (48.2 %) with 1-9 years of tenure.

In detail, most of the midwives have ‘sufficient’ knowledge (444 midwives or 54.0 %). Then, 216 midwives (26.3 %) have ‘less’ knowledge while 162 midwives (19.7 %) have ‘good’ knowledge. The training for midwives was categorized into two: less (< 5 times) and complete (≥ 5 times). The majority of village midwives had poor training status (129 midwives or 94.2 %). In this district, 50.4 % of the midwives received rewards and the rest did not (49.6 %).

In this case, the supervision was to supervise the midwives and it was conducted by the District Health Office or Primary Health Care. The supervision was categorized into two, less (< 2 times a year) and good (≥ 2 times a year). The study showed that 56.9% of the midwives were in a 'good' category, while the rest (43.1%) was in a 'less' category.

Most midwives in this district have low facilities (68.6%), complete facilities (28.5%), and no facilities (2.9%) to supports the implementation of EMAS program. Regarding leadership, 50.4% of midwives have good leadership, while 49.6% have low leadership. In terms of attitudes, 420 midwives (51.1 %) have positive attitudes and 402 midwives (48.9 %) show negative attitudes. Then, 58.4% of midwives have good motivation in providing health services including the implementation of EMAS program. This value is higher compared to midwives with lower motivation [Table 1].

The relationship analysis of midwives’ age and performance in the village revealed that 73.7% of the midwives aged 22-31 years and 68.8% of the midwives aged 32-41 years have low performance. Otherwise, 26.3% of midwives aged 22-31 years and 31.2% of the midwives aged 32-41 years have high performance. Table 2 showed p-values of > α meaning that the midwives’ age and performance have no significant relationship. Table 2 showed that OR values of midwives aged 22-31 years with chances 1.3 times higher to have low performance compared to those aged 32-41 years.

In addition, the analysis of the midwives’ tenure and performance showed that 72.7% of midwives with 1-9 years of tenure and 69% of the midwives with 10-18 years of tenure have low performance. However, 27.3% of midwives with 1-9 years of tenure and 31% of the midwives with 10-18 years of tenure have good performance. Table 2 showed p-values of > α meaning that the midwives’ tenure and performance have no significant relationship. Moreover, Table 2 showed OR values of midwives with 1-9 years of tenure have chances 1.2 times higher to have low performance compared to those working for 10-18 years.

Based on the analysis relationship between training and midwives’ performance, 72.9% of the midwives in the less training group have low performance and 7.5% of the midwives in the complete training group have good performance. Otherwise, 27.1% of the midwives in the less training group have good performance and 62.5% of the midwives in the complete training group have good performance. Table 2 showed that p-values < α meaning that there is a significant relationship between training and midwives’ performance. OR values showed that midwives in the less training group have chances 4.5 times higher to have low performance compared to those in the complete training group.

Based on the analysis of the relationship between supervision and midwives’ performance, 89.8% of the midwives in the low supervision and 56.4% of the midwives in the high
supervision group have low performance. Otherwise, 10.2% of the midwives in the low supervision group and 43.6% of the midwives in the high supervision group have high performance. Table 2 showed p-values of < α meaning that supervision and performance have a significant relationship. OR values showed that midwives with low supervision have chances 6.8 times higher to have low performance compared to those with high supervision.

Based on the analysis of midwives’ motivation and performance, 86% of the midwives in the low motivation category and 60% of the midwives in the high motivation have low performance. Otherwise, 14% of the midwives in the low motivation category and 40% of the midwives in high motivation category have high performance. Table 2 showed p-values of < α meaning that midwives’ motivation and performance have a significant relationship. OR values showed that midwives with low motivation have chances 4 times higher to have low performance compared to those with high motivation show in Table 2.

Table 2. Bivariate analysis between each variable with midwifery performance

<table>
<thead>
<tr>
<th>Variable</th>
<th>Amount</th>
<th>%Low</th>
<th>Amount</th>
<th>%Good</th>
<th>OR (95%CI)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aged (years)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22-31</td>
<td>252</td>
<td>73.7</td>
<td>90</td>
<td>26.3</td>
<td>1</td>
<td>0.663</td>
</tr>
<tr>
<td>32-41</td>
<td>330</td>
<td>68.8</td>
<td>150</td>
<td>31.2</td>
<td>1.27 (0.598-2.710)</td>
<td></td>
</tr>
<tr>
<td>Length of working (years)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-9</td>
<td>288</td>
<td>72.7</td>
<td>108</td>
<td>27.3</td>
<td>1</td>
<td>0.772</td>
</tr>
<tr>
<td>10-18</td>
<td>294</td>
<td>69.0</td>
<td>132</td>
<td>31.0</td>
<td>1.20 (0.572-2.507)</td>
<td></td>
</tr>
<tr>
<td>Training</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less (&lt;5)</td>
<td>564</td>
<td>72.9</td>
<td>210</td>
<td>27.1</td>
<td>1</td>
<td>0.047</td>
</tr>
<tr>
<td>Complete (=5)</td>
<td>18</td>
<td>37.5</td>
<td>30</td>
<td>62.5</td>
<td>4.48 (1.016-19.723)</td>
<td></td>
</tr>
<tr>
<td>Supervision</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>318</td>
<td>89.8</td>
<td>36</td>
<td>10.2</td>
<td>1</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Good</td>
<td>264</td>
<td>56.4</td>
<td>204</td>
<td>43.6</td>
<td>6.83 (2.625-17.747)</td>
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</tr>
<tr>
<td>Reward</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>304</td>
<td>73.5</td>
<td>110</td>
<td>26.5</td>
<td>1</td>
<td>0.047</td>
</tr>
<tr>
<td>Yes</td>
<td>278</td>
<td>68.1</td>
<td>130</td>
<td>31.9</td>
<td>1.30 (0.621-2.723)</td>
<td></td>
</tr>
<tr>
<td>Motivation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>294</td>
<td>86.0</td>
<td>48</td>
<td>14.0</td>
<td>1</td>
<td>0.002</td>
</tr>
<tr>
<td>Good</td>
<td>288</td>
<td>60.0</td>
<td>192</td>
<td>40.0</td>
<td>4.08 (1.709-9.756)</td>
<td></td>
</tr>
</tbody>
</table>

3.2 Discussion

Based on the result of training, supervision, and motivation related to midwives’ performance, the government has to consider policies and follow-up actions to improve the performance of midwives in villages in the implementation of EMAS program.

The midwives’ age and performance have no significant relationship in the implementation EMAS program. It is in line with D’Ambruoso et al [16] in which midwives’ age and performance do not show a significant relationship in maternal and neonatal services. On the other hand, it contradicts with Rambu Ngana, Myers, & Belton [17] in which they found that midwives’ age and performance have a significant relationship. Midwives, as health workers and pioneers of health programs to reduce maternal mortality rate that is used as an indicator of health status, have to possess mental and physical maturity in various actions including in decision making [17]. Therefore, they have to be mature in thinking and taking action. Gibson Makowiecka, Achadi, Izati, & Ronsmans [18] state that age is an individual variable that the
older the persons, the more mature they will be. Even, more information will affect their performance. However, age is not always a benchmark that showed the higher the maturity, the better the performance because some other factors may affect the performance of midwives. It has to be followed by sufficient knowledge and training for village midwives [19].

In addition, tenure and midwives’ performance have no significant relationship in the implementation of EMAS program. OR 1.2 values indicate that midwives with 1-9 years of tenure have higher chances (1.2 times) to have a low performance compared to those with 10-18 years of tenure.

This result is in line with a study conducted by Ronsmans et al [20] in which tenure and midwives’ performance in maternal and neonatal health services have no significant relationship. However, Achadi et al [21] found that tenure and midwives’ performance have a significant relationship. Working experiences indirectly determines the performance and behavior of individuals. The tenure and experiences in managing cases will affect the individuals’ skills [22].

Training and midwives’ performance have a significant relationship in the implementation of EMAS program. OR showed that midwives with incomplete training have a chance 4.5 times higher to have a low performance compared to those receiving complete training. It is in accordance with the study conducted by Ronsmans et al [23] in which training and midwives’ performance showed a significant relationship. Training is one of the ways to develop human resources and it is a part of a formal education process that aims to improve individuals’ performances and skills.

Reward and midwives’ performance have no significant relationship in the implementation of EMAS program. OR showed that midwives who do not receive rewards had chances 1.3 times higher to have a low performance compared to those who receive the rewards. Furthermore, Achadi et al [21] found that there is no significant relationship between additional income and the performance of midwives. On the other hand, found that additional income and village midwives have a significant relationship [24]. Huang et al argue that income or reward can motivate workers’ performance and good rewards will motivate them to have higher achievement [25].

The study showed that supervision and midwives’ performance have a significant relationship in the implementation EMAS program. Furthermore, Achadi et al also found a similar finding [21]. Otherwise, Ronsmans et al found that supervision and midwives’ performance have no significant relationship [23]. If the midwives were not supervised and their performance was low or the supervision coverages were not comprehensive, then they required guidance from their seniors to carry out their duties including in the implementation of EMAS program. Furthermore, they have to possess sufficient knowledge of standard midwifery services [2].

Table 2 showed that motivation and midwives’ performance have a significant relationship. In addition, Ronsmans et al [15] shared similar findings. On the other hand, Achadi et al [16] found that midwives’ motivation and performance have no significant relationship.

Salenius [17] states that motivation is an internal condition or mental health that drives individual performance behaviors in achieving satisfaction and reducing imbalances. The results of this study indicate that midwives’ motivation has a significant relationship in the implementation of EMAS program. Some factors contributing to low motivation cover economic dissatisfaction/amount of income, inconvenient working environment, and a gap between midwives working in the urban and rural areas [24].
4 Conclusion

It is crucial for the government to increase the midwives’ motivation. It can be done through providing rewards both material and non-material such as easy access to training and higher education. The village midwives carry out a cross-sectoral collaboration with relevant agencies in the village and sub-district, community leaders, and religious leaders to disseminate information on EMAS program and its benefits for the community.

The limitation in this study was used an online questionnaire and it was shared via Facebook. Therefore, the participants of the study need a computer, internet access, and a Facebook account. The questionnaire used Bahasa Indonesia without completed with a local language. Thus, the participants have to be able to read and comprehend the language.

This study has no control group, so the measurement cannot be compared. This study discusses the factors affecting the performance of village midwives in the implementation of EMAS program. However, this study covered a limited number of variables regarding the midwives’ performance. It only involved 10 factors (age, tenure, knowledge, training, reward, supervision, facilities, leadership, attitude, and motivation). Therefore, there is a possibility that other factors might influence the result of the study. Furthermore, it used limited measurement parameters for each variable, both the independent and dependent variables. Hence, other representative parameters can describe the values of each variable that is not covered in this study.

Acknowledgment

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References


The Effectiveness of Zakat Payment Technology

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Abstract. This study discusses to answer the question of overpayment and payment of zakat with the application system at National Amil Zakat Institution (BAZNAS) Subang Regency and how to use the application in the payment of zakat at National Amil Zakat Institution (BAZNAS) Subang Regency. The research objective was to determine the role of application technology in payment of zakat. This study uses a qualitative descriptive method using a case study approach, by exploring primary and secondary data from interviews, observations and library research. The results of the study found that in the practice of paying zakat for Muslims using the application at BAZNAS Subang district is very effective for users who are busy with their daily activities. There are several advantages and disadvantages in it for the advantages can make it easier for people who are quite busy everyday, speeding up the payment process compared to the manual way and the performance of amil zakat to be more professional.

Keywords: Application technology, payment of zakat, BAZNAS Subang

1 Introduction

The use of computers and the internet as a tool in completing work is increasingly in demand by various groups, both as data managers or special processes in daily life, because they have a high level of accuracy and fast work processes. Using a special application will make it easier to solve problems. Along with advances in computer and internet technology, it is appropriate if the science of fiqh, especially that which discusses zakat payments, also develops, followed by technological developments, then the delivery of information about fiqh, especially zakat information online, will be easily accessible to the public. According to information in the Al-Qur’an that all the prophets and messengers have the teachings of zakat in accordance with the findings of new human technology in managing their life patterns. The concept of zakat technology as a purification of body and soul was discovered by the Prophet. As a prophet enlightening the earth and enlightening the mind of man.

Information about zakat is still difficult to obtain because it still depends on someone who understands zakat, if that person is not available or difficult to find information will be difficult to obtain, to make it easy for users to access information about zakat without the need to come directly to the person concerned will save more time and the user can know immediately how much money must be spent to pay zakat mal or the assets he owns. Low awareness of zakat in the perspective of Antonio Syafi’i can open up space with humanitarian conflicts, because zakat is maalayah ijtimaiyyah (worship related to the social economy) and it needs supporting technology in managing the Zakat Information System Management (ZISM).
The majority of Indonesia's population is Muslim, zakat should be able to help a little in terms of poverty alleviation that exists today. And it is not only potential in terms of zakat collection, but there must be improvements in terms of zakat management at this time, and this will affect the distribution of zakat if zakat management is fairly good. In terms of management, there should be support from several groups, both from the government and from the community. The management of zakat has been legalized by the state in 1999. With evidence of the existence of Law No. 38/1999 on Zakat Management. Then it was updated in 2011, namely Law No. 23/2011. It is explained in the law that zakat management is carried out by two existing institutions, namely BAZ and LAZ. These two institutions have an important role in terms of zakat management, which distinguishes between the two, namely if BAZ is formed by the government directly, while LAZ is formed by the community or community association, which has the same goal of making management run well and in accordance with the rules and in accordance with sharia. These institutions have the same activities in accordance with the Law, which include planning, collection, distribution and utilization activities.

This condition illustrates that information technology is needed as a supporting facility in zakat services to organize the zakat information management system. The importance of information technology as a supporting medium that can facilitate BAZNAS in the collection, management and distribution of zakat effectively for the community. When BAZNAS has not been able to use Zakat Information Technology as a strength and a tool in managing the ZIS Administration system, it can be predicted that ZIS has not been able to become a good economic regulation for the community. Information technology has become an indicator of a nation's progress, the weaker the technological facilities used, the lower the competitiveness of a society.

Along with the development of the times and the development of technology, this has become a common thing that amil zakat institutions do. With the use of technology that almost all people understand, one of the BAZNAS institutions issued an online application for zakat payments. This is an innovation that is tailored to the current developments.

In this modern era, it is developing very rapidly in terms of education, economy, social and culture and the most visible influence is in technology and communication issues. Development of communication and information in its distribution is very fast, and this affects the order of people's lives in at this time. The spread of this communication can penetrate any circle and anyone for those who are able to access technological and communication developments. Current technological progress is indeed very fast and fast, and following the flow of these developments, every institution in Indonesia should make adjustments so as not to be left behind in terms of information and in terms of technology.

The very fast flow of information demands an adequate line of information. This results in the development of communication technology that can be easily understood by the community. Basically, the economic flow that will determine the dynamics of human life today and humans will follow the flow of these dynamics. The most extensive media network today is the internet, which almost everyone can easily access. This network can easily innovate and develop according to the development of society at this time, and almost all human needs are connected to the internet. The internet can be said to be a medium that is used most needed at this point.

One of the things that is utilized by the development of this technology is the creation of several online systems, both in terms of online shopping and in other matters, such as online zakat payments in the case that BAZNAS creates an online zakat payment application. This innovation is a use because of the development of technology, information and easy internet access.
Because basically a technology is a producer of culture, which means that it greatly affects humans in terms of thoughts, actions and emotions. According to Domicik, the impact of information technology on knowledge is about people's perceptions and attitudes, mass media, especially television and the internet, become agents of socialization or spread values and have an effect on values, perceptions and beliefs. Because it has an influence, the creation of a new innovation in terms of technology will be able to have an influence on anyone who understands this technology, because in this day and age humans choose to live practically, for example in terms of shopping with the development of technology, today they choose online shopping. This is BAZNAS capturing this phenomenon by creating an online zakat payment application system.

The context of ZIS is closely related to the condition of the nation which has not yet fully risen from its downturn due to the weak system of zakat technology which has an impact on the economic, social and political crisis of Muslims who do not have zakat technology which is mandated by the law on public services. So, based on the main problem, the objectives of the research are (1) to find out the excess in paying zakat using the online system at BAZNAS, Subang Regency, (2) to find out the shortcomings in the payment of zakat by using the online system BAZNAS, Subang Regency, and (3) to find out the procedure for paying zakat using the online system BAZNAS, Subang Regency. This research is expected to provide useful information about the role of technology in paying Zakat.

2 Method

Sugiyono explained that the research method is basically a scientific way to obtain data with specific purposes and uses. Based on this, there are four key words that need to be considered, namely, scientific method, data purposes and uses. The scientific way means that research activities are based on scientific characteristics, namely rational, empirical and systemic. Rational means that research activities are carried out in ways that make sense so that human reasoning can reach them. Empirical means that the ways that are done can be observed by the human senses, so that other people can observe and know the methods used. Systemic means that the process used in the research uses certain logical steps.

One of the most important elements in research methodology is the use of certain scientific methods that are used as a means to identify the size of the object or symptom and seek solutions to the problem being studied, so that the results obtained can be scientifically accounted for. So it can be concluded that the Research Methodology is a set of rules, activities and procedures used by actors of a scientific discipline. In this research methodology, there are 2 (two) types of data, namely: (1) qualitative data, namely data expressed in the form of words, sentences and pictures, and (2) quantitative data, namely data expressed in numerical form or extrapolated qualitative data.

The process of compiling this thesis, the research methodology used is a qualitative type, namely a method that analyzes data in the form of words. This method is also called an artistic method because the research process is more of an artistic nature and is called an interpretive method because the research data is more concerned with the interpretation of the data presented in the field. Research is conducted on natural objects, natural objects are objects that develop as they are and are not manipulated by researchers and the presence of researchers does not affect the dynamics of these objects. To get a broader and deeper understanding of the social situation under study, the data collection technique is triangulation, which is to use various combined
Data collection techniques. Data analysis is inductive based on facts found in the field and then constructed into theory. Qualitative methods are used to obtain in-depth data, data that contains meaning. Meaning is actual data, definite data is a value behind the visible data. Therefore in qualitative research it does not emphasize generalization but rather emphasizes meaning.

Data collection techniques are the methods used for data collection. The data required in this writing is quite diverse, which cannot be collected by a data collection technique. Determination of Informants, an informant is a person who is used to provide information about the situation and conditions of the research background, so he must have a lot of experience in the research background and must volunteer to become an informant or a member of the research team even though it is only informal. The technique used by researchers to obtain informants is purposive sampling technique. Purposive Sampling is determining the subject/object according to the goal. Researching with qualitative research usually has a designated place to go. By using personal considerations in accordance with the research topic, research selects the subject/object as the unit of analysis.

The researcher chooses the unit of analysis based on his needs and considers that the unit of analysis is representative. The following are the criteria for informants determined in this study: (1) managers and administrators of BAZNAS Subang, Chairman, Treasurer, and (2) community of application users. The location of the research that the researchers conducted was in the amil zakat agency, Subang Regency, where the Baznas had the application of zakat payments using an application that would be researched by researchers. Sources and Data Collection Techniques are (1) primary data, is data that is collected and processed by an organization or individual directly from its object. The data collection was carried out specifically to solve the research problem being studied, and (2) secondary data, is data obtained in a ready-made form, which has been collected and processed by other parties, usually in the form of publications. This kind of data has been collected by other parties for specific purposes which are not for the specific purposes of the research currently being carried out by the researcher.

Data Analysis Techniques (1) observation, observation method is observation and recording with systematics of the phenomena being investigated. Nasution stated that observation is the basis of all science, scientists can only work based on data, namely facts about the real world obtained by observation, (2) interview, the interview is one of the methods in collecting data by way of communication, namely through contact or personal relationships between interviewer and informants. In the interview that is carried out are: “a conversation with a specific purpose, the conversation is carried out by two parties, namely the interviewer who asks the question and the interviewee who provides answers to the question.

3 Results and Discussion

History of BAZNAS Subang Regency, in 2006, it was a transition period after going to the previous vacancies and also changing the name from BAZIS to BAZDA. This is an adjustment to Law no. 38 of 1999 concerning Zakat Management, as well as Regional Regulation No. 2 of 2006 concerning Zakat Management in Subang Regency; 1. Period 2006 – 2009. In the 2006 - 2009 period chaired by H. Ahmad Hanafi, BE was a period of improving infrastructure such as providing professional human resources through open selection of candidates for BAZDA management, procurement of adequate office facilities and infrastructure so that in this period BAZNAS (at that time BAZDA) Subang Regency had new management results. adequate
selection and building, facilities and infrastructure through assistance from the Regional Government of Subang Regency. 2. Period 2009 – 2014. In this period, chaired by KH. Moh. Musa, M.Si., was the program planning and implementation period. This period includes compiling and implementing programs that are consumptive in nature, but also for productive and creative purposes. There are quite a lot of outreach activities carried out directly or indirectly in every sub-district, agency / agency, businessmen and schools. As in the previous period, this period saw a transition period for adjusting the name from BAZDA to BAZNAS considering the issuance of Law No. 23 of 2011 concerning the new Zakat Management. Programs and activities began to run from the collection, utilization and distribution, BIS HEAVEN, SUBANG GIRL, DIM and professional zakat among civil servants began to grow and run with the support of sufficient BOP from the Regional Government of Subang Regency, 3. Period 2014 – present. The management and implementation of BAZNAS in Subang Regency in this period was confirmed on January 20, 2015 by the Regent of Subang with the Chairperson Drs. H. Anang Jauharuddin, M.Pd., so that at the beginning of his management year it is necessary to adjust the work procedures, implementation and duties of each field. This happened because of a significant change in institutional structure, for example regarding the number of BAZNAS leaders in Subang Regency consisting of 4 (4) deputy heads of fields / sections and 1 (one) chairman, who are assisted by secretarial executors and UPZ at every level, institution and agency. This period succeeded in developing programs and activities that had been centralized into decentralization and involving all components of society as well as touching all levels of society, especially the mustahik in the regions. Creative and innovative activities also color BAZNAS's current journey. Homecoming Post, scholarships, title ta'jil and sahur with mustahik, donations for orphans, clean water assistance, natural disaster relief and completion of the new BAZNAS building. The data collection for muzakki and mustahik, infaq haji and professional zakat continues to grow and develop.

Zakat Payment Procedure Using the Application System at Baznas Subang Regency. The facilities offered by ABAZNAS which are online based include online zakat internet, mobile zakat, card-zakat and Zakat applications.

Online Internet Zakat, through online internet services, services that can be used include online zakat payments through the Baznas website or through online zakat services from the muzakki bank account website. Another service used is the online payment of zakat through an ATM. Muzakki can use the e-zakat menu in the ATM menu to pay zakat. Furthermore, zakat payments via transfer of funds from mobile zakat counters or from zakat corners are available in various strategic places such as shopping centers or offices.

Mobile Zakat. With cellular phone facilities, zakat can be paid through the mobile-zakat menu, which is a menu that has been provided in every cellular service, so that when muzakki intends to pay zakat, just open the menu on his cell phone. For sms-zakat, the concept is the same as for the zakat mobile menu. The difference is that sms-zakat is done manually. Muzakki sends an SMS containing the muzakki name, muzakki account and the amount of zakat paid to the zakat services number Baznas

Card Zakat. With this facility muzakki can pay zakat through their debit / credit cards. Internet zakat, mobile. The payment system in online internet zakat, mobile-zakat and zakat card is a transfer of funds from the muzakki account to Baznas. Information sent by muzakki via e-zakat. Furthermore, the funds in the muzakki account will automatically be debited by the bank if the muzakki makes payments through the e-zakat facility. The funds are then transferred to the Baznas account.

Procedures for using the application; 1. Open Playstore / iOS on your handphone then download install the application, 2. Then after opening the login / login application using e-mail
/ facebook / nik, 3. Then enter the zakat page in which there are several menu options and select the zakat menu, 4. Next enter the zakat calculator menu, 5. Enter the nominal to be zakat, can pay through several banks in Indonesia, 6. The final step is transfer according to the nominal to be zakat, 7. Wait until the process is complete.

In the results of the interview that the author researched in the field with Mr. Mugni as the chairman of the Subang District Baznas, he stated that the advantages of this zakat application are:

a. Provides convenience and is very helpful in paying zakat compared to manual payments and manual payments at the Baznas office.
b. Make zakat closer to the community, because the zakat payment system now uses a system that is easy and commonly used by the community.
c. The performance of amil zakat, looks more professional. The level of public trust in the performance of amil becomes higher.
d. Baznas branches and zakat mobile counter can now be connected in one online network.

Apart from the advantages of the zakat application, there are also several disadvantages in it, namely:

a. There are still no special operators who hold this part of the zakat application,
b. Because the zakat application uses high-level technology, it certainly requires a lot of money to build a perfect network,
c. Online internet zakat utilizes internet facilities in it. Please note that cybercrime crimes have occurred a lot on the internet, for example, such as carding, hacking, cracking, phishing, defacing, spamming and malware.

From the application we can calculate zakat, even more sophisticated cellphones can be used to make a zakat calculator as a tool to calculate assets and clean it by issuing infak and shodaqoh as a cleanser for the human body and soul to be healthy in thinking, communicating and behaving.

4 Conclusion

In conclusion, the zakat application technology makes it easy for Muslims to pay their zakat. Zakat payers do not need to mobilize to the place of payment, but simply do it through the zakat application. The role of the zakat application is of course very helpful for the community in making transactions. It's just that sometimes there is a feeling of reluctance to pay zakat which is influenced by various internal and internal factors of zakat payers. However, socialization is also needed that can influence Muslims to pay zakat through the application, so that Baznas will easily report openly on the amount of zakat income every month, semester or yearly.

As with the results and discussion of research on the role of application technology in paying zakat invites people to pay zakat through the application. Researchers suggest the need to recruit employees who have backgrounds or professions related to applications and communications. In order to increasingly trust the public, especially prospective zakat distributors, researchers suggest the BAZNAS Kab. Subang needs to publish to the mass media, one of which is print media, namely reports on activities of association, management, and distribution of zakat funds from muzakki circles so that the public knows more about where their zakat will be managed and distributed. To disseminate information about the zakat
payment application, researchers suggest that the BAZNAS Subang Regency socialize more to the community.

References

[4] Fahrur Mu’is, Zakat A-Z Panduan Mudah, Lengkap, dan Praktis tentang Zakat, (Solo, Tinta Medina, cet. 1)
The Optimization of Antibacterial Production Time of Actinomycetes (J4 Isolate) Against Staphylococcus Aureus and Escherichia Coli

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Faculty of Pharmacy, Ahmad Dahlan University, Indonesia2

Abstract. There are many cases of antibiotic resistance that cause death in patients infected with bacteria. The increase in cases necessitated the discovery of new antibiotics as an alternative to antibiotics that were already resistant. Bacteria that produce antibiotic compounds are located in the rhizosphere of a plant. One of them is the rhizosphere of the red ginger plant (Zingiber officinale Roscoe var. Rubrum). The bacterial isolate that produces new antibiotic compounds in the rhizosphere of red ginger is Isolate J4. Isolate J4 can produce secondary metabolites in the form of antibiotic compounds after inoculation on Starch Nitrate Broth (SNB) medium and incubated in a few days to obtain optimal antibiotic compounds based on their activity. The purpose of this study was to determine the results of the antibiotic activity of secondary metabolites of isolate J4 in producing antibiotics against Staphylococcus aureus and Escherichia coli bacteria. Antibiotic activity profile was observed by looking at the relationship between the inhibition zone and the incubation time of these isolates. The results showed that isolate J4 obtained optimal antibiotic that inhibited the growth of Staphylococcus aureus bacteria after incubation for ten days with an average inhibition zone diameter of 14.2 mm, whereas for Escherichia coli bacteria after incubation for five days which is 12.3 mm in diameter.

Keywords: Actinomycetes, Antibiotic, Isolate J4, Metabolite secondary, Rizosfer

1 Introduction

Infectious diseases still rank first in health problems. Infection is a disease caused by a microorganism, including viruses, bacteria, fungi, and protozoa. One of the bacteria that can cause infection is Escherichia coli and Staphylococcus aureus [1]. Escherichia coli often cause infections of the urinary tract, diarrhea, and other diseases [2]. Staphylococcus aureus is an infectious disease-causing bacteria that can primarily cause skin and tissue diseases in the human body [3]. Treatment of these infections using antibacterial drugs. However, this treatment is hampered by cases of antibacterial resistance so that it requires the discovery of new antibacterial drugs. Exploration of new sources of antibacterial is carried out by means of exploration to find the antibacterial-producing microorganisms that these bacteria produce. The most antibacterial producing bacteria are actinomycetes. Actinomycetes are widely researched because they can produce antibacterial, vitamins, and enzymes [4]. The screening process in the process of finding antibacterials consists of two stages, namely primary screening starting from...
isolating the producing source and testing the results of the isolates obtained, and secondary screening, one of which is to find the optimal conditions for the isolate to produce antibacterial from the results of the isolates that have been obtained [5].

Optimization of secondary metabolite production was carried out on the Rhizosphere of the roots of Jatropha (Jatropha Curcas L.) against pathogenic bacteria and the resulting bacterial isolate Actinomycetes IBPT 01 was able to provide activity against 9 pathogenic bacteria. The optimum time for the production of secondary metabolites by the Actinomycetes IBPT 01 bacterial isolate against pathogenic bacteria was different, namely the 4th day, 7th day, 8th day, 9th day and 26th day [6]. Isolate Streptomyces afghaniensis VPTS3-1 isolated from Palk Strait, India performed temperature optimization on Actinomycetes isolates with temperatures of 5, 10, 20, 30, 40, and 50ºC for 7 days and got the results at 30ºC to get an optimal inhibition zone of 20mm against P.vulgaris bacteria and the minimum against B.subtilis and optimum against the fungus Helminthosporium oryzae and F. solani [7].

The optimal time for bacterial isolates to produce antibacterials varies widely. Isolate J4 has not been optimized for the production time of secondary metabolites in the form of antibacterials against Staphylococcus aureus and Escherichia coli. Therefore, this research needs to be done to determine the optimal time of J4 isolate in producing secondary metabolites so that the time/ day needed for incubation can be produced to get optimal antibacterial production.

2 Method

2.1 Ingredient

SNB media, Mueller Hinton media, NaCl 0.9%, BHI, Mc Farland standard (108 CFU / mL), 25% glycerol, NaCl, KNO3, K2HPO4, MgSO4.7H2O, FeSO4.7H2O, cork borer, Isolate J4 from the soil of the red ginger plant (Zingiber officinale Roscoe var. Rubrum).

2.2 Making a starter culture

Making the starter is done by taking a quarter of the isolate plate J4 inserted into 50 mL sterile SNB media [8]. Incubated at room temperature for 5 days with agitation using a magnetic stirrer at 200 rpm [9].

2.3 Preparation of fluid test

A five mL starter was inserted into the erlenmeyer containing 50 mL of sterile SNB media [9]. Incubated at room temperature for 5 days with agitation using a magnetic stirrer. After 5 days, 50 mL of culture stratified were transferred to erlenmeyer containing 500 mL of sterile SNB media (1:10) and incubated at room temperature for 14 days. Sampling was done every day as much as 1 mL and put into eppendorf then labeled and stored in the freezer [10] [11].
2.4 Separation of cell biomass and active substances

The test culture that has been taken for 14 days is centrifuged at 8000 rpm for 10 minutes at 4°C [12] to separate supernatant and sediment. The supernatant containing the active substance is introduced into the new eppendorf.

2.5 Preparation of bacterial suspensions

Bacterial stock of 100 µL was added to 1 mL of BHI, incubated for 18-24 hours, then 100 µL was taken into 1 mL of BHI, incubated for 3-5 hours in an incubator. Taken 100 µL of bacteria diluted with NaCl 0.9% until the turbidity is equal to the Mc Farland standard of 108 CFU/mL [13].

2.6 Optimization of secondary metabolite production time

The Mueller Hinton agar medium which had been scratched by the bacterial suspension was made of wells using a cork borer with a diameter of 6.0 mm. Each well was filled with 50 µL of culture fluid according to the sampling sequence (day 1-14). Then stored in the refrigerator for 2 hours to accelerate the diffusion of the test culture fluid, then incubated at 37°C for 18-24 hours and observed the inhibition zone diameter in the form of a clear zone around the well hole which showed the inhibitory activity of the culture fluid of Actinomycetes isolates (isolate J4) [14]. The average diameter of the inhibition zone is calculated from the 4 sides of the clear zone [15]. To observe the optimization profile of secondary metabolite production time, a curve of the relationship between the inhibition zone diameter (X axis) and incubation time (Y axis) was created. Optimization of the production time of secondary metabolites in isolates from the rhizosphere of Tin fruit was carried out for 14 days and the production time for secondary metabolites was obtained on day 2 [16].

3 Results and Discussion

The preparation culture test was carried out in a ratio (1:10) or with a concentration of 10% (v/v) between the starter and SNB media and incubated for 5 days [9]. Stratified culture was carried out after 5 days of incubation to maintain isolate J4 in the log phase. As research conducted by, isolate growth entered the log phase at day 5. The difference in the time of the growth phase is because Actinomycetes have a very varied growth time [16].

During the 14-day incubation there was a change in the color of the culture fluid as in Table 1. The color change that occurred during the incubation time showed that the Actinomycetes emitted a color pigment that was able to diffuse or not on the media [17]. This statement can indicate that the color change that occurs in the culture fluid is caused by isolate J4 emitting color pigments. Optimization of secondary metabolite production time aims to determine the optimal time for bacterial isolates to produce secondary metabolites so that it can be used to determine the right time to harvest secondary metabolites produced by isolate J4 culture fluid. The optimization test for the production time of secondary metabolites of culture fluid for these Actinomycetes isolates used the test culture fluid supernatant from day 1 to day 14. The results of the optimization test are shown in Figures 1, 2 and Table 2.
Table 1. The results of observations of changes in the color of the test culture

<table>
<thead>
<tr>
<th>Day to-</th>
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<th>Color</th>
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<tbody>
<tr>
<td>1</td>
<td>clear white</td>
<td>8</td>
<td>Brown ++</td>
</tr>
<tr>
<td>2</td>
<td>clear white</td>
<td>9</td>
<td>Brown +++</td>
</tr>
<tr>
<td>3</td>
<td>clear white</td>
<td>10</td>
<td>Dark brown</td>
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<tr>
<td>4</td>
<td>Light brown</td>
<td>11</td>
<td>Dark brown ++</td>
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<tr>
<td>5</td>
<td>Light brown</td>
<td>12</td>
<td>Dark brown ++</td>
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<tr>
<td>6</td>
<td>Brown</td>
<td>13</td>
<td>Dark brown +++</td>
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<tr>
<td>7</td>
<td>Brown +</td>
<td>14</td>
<td>Dark brown ++++</td>
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</tbody>
</table>

Fig. 1. Inhibition zone diameter 1-14 days against Staphylococcus aureus

Table 2. Inhibition zone diameter 1-14 days against Staphylococcus aureus

<table>
<thead>
<tr>
<th>Day</th>
<th>Inhibition zone diameter (cm)</th>
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<th>Inhibition zone diameter (cm)</th>
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<td>1</td>
<td>2</td>
<td>Mean</td>
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<td>0,83</td>
<td>1,01</td>
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<td>2</td>
<td>1,08</td>
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Fig. 2. Optimization profile of production time of secondary metabolites of Actinomycetes isolate culture fluid (J4 isolate) against Staphylococcus aureus

Results of inhibition zone diameter measurements from liquid culture actinomycetes isolates (isolates J4) against Staphylococcus aureus showed that secondary metabolites (antibacterials) have been produced on day 1 with a diameter of 1.01 cm inhibition zone. Antibacterial production will increase during the incubation period indicated by the diameter of the inhibition zone produced against the growth of Staphylococcus aureus bacteria. The production of secondary metabolites (Antibacterial) will be constant after incubation for 6 days with an inhibition zone diameter of 1.43 cm. Antibacterial Activity constant after day 6 so as to time the harvesting of secondary metabolites (antibacterials) are potentially against Staphylococcus aureus that after incubation for 6 days shown in the chart Figure 2. Research conducted [18], shows the optimization results of secondary metabolite production time of Te234 isolate which is shown by antibacterial activity on Staphylococcus aureus bacteria after incubation on the 13th day with a diameter of 16.00 ± 4.00mm. Isolate J4 has an optimal time that is more efficient or faster than isolate Te234 so that the time needed to produce antibacterials does not require a long time.

The results of measuring the inhibition zone diameter of the culture fluid of the Actinomycetes isolate (J4 isolate) against Escherichia coli bacteria showed that secondary metabolites (Antibacterial) had been produced on day 1 with an inhibition zone diameter of 1.12 cm. Antibacterial production has increased and on day 4 the production of secondary metabolites (Antibacteria) is constant with an inhibition zone diameter of 1.23 cm. The production of secondary metabolites was constant until the 14th day of incubation, so that the optimal harvesting time of secondary metabolites (antibacterial) against Escherichia coli was after incubation for 5 days as shown in Figures 3, 4 and Table 3. The extraction time for secondary metabolites was carried out in the stationary phase. The same thing was done with the extraction of secondary metabolites carried out on the 5th day, which was entered into the stationary phase [19]. The diameter of the inhibition zone from the optimization results of the production time of secondary metabolites (Antibacterial) of the culture fluid of Actinomycetes isolates (J4 isolates) for activity testing against Staphylococcus aureus bacteria with optimal
antibacterial potential on the 10th day with a diameter of 1.42 cm, while against Escherichia coli bacteria on the second day -5 which is 1.23 cm in diameter.

**Table 3. Diameter of the zone of inhibition against Escherichia coli**

<table>
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<tr>
<th>Day</th>
<th>Inhibition zone diameter (cm)</th>
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</tbody>
</table>

**Fig. 3. Diameter of inhibition zone on day 1-14 against Escherichia coli**

**Fig. 4. Optimization profile of secondary metabolite production of Actinomycetes (J4 isolate) culture fluid against Escherichia coli bacteria**
4 Conclusion

The optimal production of secondary metabolites (Antibacterial) of Actinomycetes isolate (isolate J4) was based on activity tests against Staphylococcus aureus bacteria after incubation for 10 days, whereas against Escherichia coli bacteria after incubating for 5 days.

References


Quality of Work Life Towards Organizational Agility Through Millennial Employee Work Engagements as Mediation

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Abstract. The shift in leadership from the older generation to the younger generation has now occurred in the Japanese Foreign Capital Company (PMA) organization in Indonesia, causing a shift in value. This research intends to develop conceptual and empirical models, influence work-life quality on organizational agility, and investigate the indirect effect of work-life quality on organizational agility via work engagement. This study uses quantitative methods with survey techniques using a questionnaire through 380 samples in the millennial age range at Japanese foreign capital companies in several industrial areas in West Java. The AMOS version 24 software was used to analyze the data using structural equation modeling (SEM). The results showed that the work engagement variable as mediation was proven positively and significantly influenced the quality of work-life and organizational agility. Policy implications that can be recommended for Japanese foreign capital companies in West Java are to increase work engagement and organizational agility as well as maximize the quality of work life. By increasing work engagement and organizational agility, Japanese Foreign Capital Companies will survive and compete in Indonesian.

Keywords: Millennials, organizational agility, quality of work-life, work engagement

1 Introduction

Millennials fill around 40% of the workforce in Indonesia, who in the future will be the successors and replacements for the current leaders. Japanese PMA companies in Indonesia have also experienced a shift in the leadership generation from the older generation to the younger generation (HRPA member survey September 14-28, 2016). The formulation of the problem in the study is whether there is an effect of quality of work life on organizational agility with work engagement as a mediating variable in Japanese PMA companies in West Java. This study aims to find a conceptual model by analyzing the influence of quality of work life on the agility of Japanese PMA company organizations in West Java with work engagement millennial employee as mediation, and will provide an overview of the conditions of the millennial workforce working in Japanese PMA companies.

Thus, this study will contribute to policies relating to human resources and the professional duties of an employee in the manufacturing industry. From a number of previous studies [1]-[6]. In addition, this study has a number of novelties that distinguish it from previous studies. First, from the aspects of the object and subject of the study, where this research was conducted at companies engaged in the manufacturing industry in Japanese PMA companies in West Java.
and took millennial employees as samples. Previous studies generally took the object of employees of various ages, while this study was specifically for millennial ages. Previous research only had similarities in one or two variables, and this study involved millennial employee work engagement as an intervening variable.

The novelty of this research is that the work engagement variable of millennial employees as a mediating variable can increase the effect of the indirect relationship between the Quality of Work Life variable on Organizational Agility. There are still not many researches on Japanese PMA companies that analyze the quality of work life and its effect on work engagement in organizational agility efforts. The mediation variable analyzed, namely the work engagement of millennial employees, will be different from the results of previous studies. This study focuses on variables that are thought to have an influence on the work engagement of millennial employees and the organizational agility of Japanese PMA companies. The variable that influences it is the quality of work life in Japanese PMA companies in several industrial areas in West Java Province. The problem in this study is based on a question whether the quality of work life of millennial employees has a positive effect on organizational agility in Japanese PMA companies with work engagement as mediation. The final objective of this research is to study organizational development in the context of the company's sustainability in running its business by having more and different advantages from other organizations. This model in this study is a model of causality or relationship and influence. The analysis used Structural Equation Modeling (SEM) which is operated through the AMOS version 24 software to test the hypothesis.

2 Method

This study uses a quantitative approach. The survey was conducted using google form of 380 respondents who are millennial employees aged between 19 and 40 years at Japanese PMA manufacturing companies in West Java Province (Bekasi Regency, Bekasi City, Karawang Regency, Karawang City, Purwakarta Regency and Subang Regency), which includes the automotive, electronics, chemical, food and beverage, plastic and metal industries. The instrument used to obtain research data was carried out using a five-scale questionnaire (Linkert scale). Compiled based on the theories that have been synthesized for each variable, conceptual definitions, operational definitions, dimensions and indicators.

The model used in this study is a model of causality or relationship and influence. To test the hypothesis in this study, the analysis technique used is the analysis of Structural Equation Modeling (SEM) which combines path analysis with factor analysis which is operated through the AMOS version 24 software.

3 Results and Discussions

The research results and discussion are based on the data analysis from questionnaire using the AMOS version 24 software.
3.1. Results

3.1.1 Validity and reliability

The results of the validity and reliability test of the research variables are shown in Table 1 and Table 2.

**Table 1. Results of Test Validity of Research Variables**

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<thead>
<tr>
<th>Variable</th>
<th>Coefficient Correlation</th>
<th>Significance</th>
<th>Cut of Value</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1 Quality of Work Life</td>
<td>0.681</td>
<td>0.000</td>
<td>0.05</td>
<td>Valid</td>
</tr>
<tr>
<td>Y1 Work Engagement</td>
<td>0.472</td>
<td>0.000</td>
<td>0.05</td>
<td>Valid</td>
</tr>
<tr>
<td>Y2 Organizational Agility</td>
<td>0.611</td>
<td>0.000</td>
<td>0.05</td>
<td>Valid</td>
</tr>
</tbody>
</table>

**Table 2. Results of Test Reliability of Research Variables**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Number of instruments</th>
<th>Cronbach's Alpha</th>
<th>R table</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of work life</td>
<td>27</td>
<td>0.757</td>
<td>0.6</td>
<td>Reliable</td>
</tr>
<tr>
<td>Work Engagement</td>
<td>12</td>
<td>0.710</td>
<td>0.6</td>
<td>Reliable</td>
</tr>
<tr>
<td>Organizational Agility</td>
<td>12</td>
<td>0.751</td>
<td>0.6</td>
<td>Reliable</td>
</tr>
</tbody>
</table>

All instruments are appropriate to use, based on the results of the validity and reliability tests being high.

3.1.2 SEM analysis results

SEM analysis results are presented in Table 3. Testing the Research Hypothesis are presented in Table 4.

**Table 3. Results of Testing the Feasibility of the Research Model**

<table>
<thead>
<tr>
<th>Goodness of Fit Index</th>
<th>Cut off Value</th>
<th>Model Test Results</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-Square (df = 109)</td>
<td>&lt; 134.368</td>
<td>303.970</td>
<td>Good</td>
</tr>
<tr>
<td>Probability</td>
<td>≥ 0.05</td>
<td>0.059</td>
<td>Good</td>
</tr>
<tr>
<td>CMIN/DF</td>
<td>≤ 2.00</td>
<td>1.139</td>
<td>Good</td>
</tr>
<tr>
<td>AGFI</td>
<td>≥ 0.90</td>
<td>0.930</td>
<td>Good</td>
</tr>
<tr>
<td>GFI</td>
<td>≥ 0.90</td>
<td>0.943</td>
<td>Good</td>
</tr>
<tr>
<td>TLI</td>
<td>≥ 0.95</td>
<td>0.992</td>
<td>Good</td>
</tr>
<tr>
<td>CFI</td>
<td>≥ 0.95</td>
<td>0.993</td>
<td>Good</td>
</tr>
<tr>
<td>RMSEA</td>
<td>≤ 0.08</td>
<td>0.019</td>
<td>Good</td>
</tr>
</tbody>
</table>

Based on the analysis results (Table 3), the analyzed model was cursive model with a sample size of 380. Chi-Square value = 303.970 with df = 265 and probability 0.000. The Chi-Square results show that the null hypothesis which states the model that the same as empirical data is accepted which means the model is fit.

3.1.3 Hypothesis test

Based on Table 4, hypothesis testing can be explained as follows.
Table 4. Testing the Research Hypothesis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Estimate</th>
<th>Standard Error</th>
<th>Critical Ratio</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>WE &lt;--- QWL</td>
<td>0.118</td>
<td>0.038</td>
<td>3.084</td>
<td>0.002</td>
</tr>
<tr>
<td>OA &lt;--- QWL</td>
<td>0.144</td>
<td>0.054</td>
<td>2.678</td>
<td>0.007</td>
</tr>
<tr>
<td>OA &lt;--- WE</td>
<td>0.468</td>
<td>0.154</td>
<td>3.044</td>
<td>0.002</td>
</tr>
</tbody>
</table>

The Critical Ratio (CR) value of 3.084 with a probability of 0.002 is the estimation parameter for examining the effect of Quality of Work Life on Work Engagement. As a result, because the probability value was less than 0.05, the Quality of Work Life variable was found to have a positive and significant impact on Work Engagement. The findings demonstrated that the theory was put to the test.

The CR value of 2.678 with a probability of 0.007 is the estimation parameter for examining the effect of Quality of Work Life on organizational agility. As a result, because the probability value was less than 0.05, we may conclude that the Quality of Work Life variable has a positive and significant impact on organizational agility. The findings demonstrated that the theory was put to the test.

The CR value of 3.084 with a probability of 0.002 is the estimation parameter for assessing the effect of Quality of Work Life on Work Engagement. Because the probability value was less than 0.05, the effect of Quality of Work Life on organizational agility via Work Engagement was $0.238 \times 0.246 = 0.059$, resulting in a total effect of 0.211. According to these findings, the indirect influence outweighs the direct effect. As a result, the Work Engagement variable has been shown to be a positive and significant mediator between Quality of Work Life and Organizational Agility. The findings demonstrated that the theory was put to the test.

3.2. Discussions

The ability of an organization to survive and improve in an environment of constant and unpredictable change is referred to as organizational agility [7], or it can refer to the ability to move quickly, to move quickly and easily, and to think quickly and wisely [8]. It is hoped that the organization will gain a competitive edge by being able to face and adapt to changing business situations with this skill. This is certainly a necessity for the company to continue in any business environment. Japanese Foreign Capital Companies in West Java are customer-oriented by paying attention to employee needs in an effort to improve the quality of employee resources for a more conducive work environment.

Based on the results of SEM analysis, research findings show that quality of work life encourages work engagement and agility of Japanese foreign capital companies in West Java, which means that Japanese foreign capital companies in West Java have a better quality of work life by carrying out activities that improve relationships. employees with a work environment will increase the agility of Japanese foreign investment companies in West Java. This means that if the quality of work life increases, the work engagement as willingness to try earnestly in doing the job, as well as persistence and persistence in facing difficulties in work [9] and agility of Japanese foreign capital companies in West Java will also increase.

According to the findings of the study, the mediating variable of millennial employee job engagement can boost the indirect association between quality of work life and organizational agility when compared to the direct relationship between each component and organizational agility. This is due to the fact that various indicators in the quality of work life variable, such as job security, occupational health, compensation, and pride, would offer millennials employees’ enthusiasm and connection to their jobs.
Good work engagement will make vigor, work dedication and high absorption, and have an impact on employee competence, speed and responsiveness of employees in the context of employees and companies' ability to adapt to changes in the company's internal and external environment in an effort to sustain business in Japanese Foreign Capital Companies. in West Java.

4 Conclusion

Through job engagement, Quality of Work Life has a positive and significant impact on Organizational Agility. The indirect effect of work life quality on organizational agility, as mediated by job engagement, was found to be larger than the direct effect. As a result, it can be concluded that the variable Work engagement as a mediator has been shown to have a positive and significant impact on Organizational Agility.

Acknowledgement

The author would like to thank Dr. Mukhtadi, MM, and Agung Dharmawan Buchdadi, MM, Ph.D as experts who have validated this research instrument.

References

Development of Character Education Model for Gender Perspective Jatil Obyog Reog Ponorogo Dancers

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Abstract. One of the art variants of Reyog Ponorogo is Reyog Obyog. One of the dance components is the jatil dance (horse braid) which is performed by women. In this dance, what was originally a satirical visualization transformed into an “erotic” dance and subsequently gave birth to a “negative” image of the Jatil Obyog dancer as a cheap woman which then gave birth to exploitative and subordinative treatment. Meanwhile, on the other hand, jatil obyog dance contains very strategic character values to be used as a model for character education based on the local wisdom of Reyog Ponorogo. This study used a qualitative method with a feminist approach to finding a character education model for the Jatil Obyog dancers. This research found the following findings: (1) patriarchal culture has created a negative image of the Jatil Obyog dancers; (2) the character values of the Jatil Obyog dance, which is self-confidence, optimistic, never giving up, creative, and orderly, are very strategic as pillars of the gender perspective character education model; (3) A gender perspective character education model based on local wisdom of the Reyog Obyog Jatil dance is an alternative character education development for prevention and overcoming violence against female jatil dancers in Reyog Ponorogo art.

Keywords: Model, Character Education, Gender, Women, Jatil Obyog

1 Introduction

Jatil Obyog is a type of jatil dance in the art performance of Reyog Obyog. Reyog Obyog is Reyog Ponorogo art which is alleged to be the origin (origin) of Reyog Ponorogo. Obyog means together or cooperation. Kumorohadi interpreted it in Javanese to greet gawe [1], pp. 23–24 (working together). It is called obyog because this reyog was performed from, by, and for the people. This means that the obyog stage is a stage that comes from the people, is initiated by the people, and is performed for the people. In the basic manual, obyog is interpreted somewhat differently, which is related to the type of accompaniment or wasp before the stage [2, p. 19]. In the context of Reyog Obyog, the difference in meaning is not contradictory, as written by Kurnianto, that Reyog Obyog is not bound by strict performance rules (pakem), prioritizing the values of togetherness and fun (entertainment) for the players and the people involved in the show, including the audience and the audience, and therefore often referred to as folk art [3, p. 79]. The obyog's performance was marked by the echoing of obyog accompaniment or beats as a signal for the players to gather immediately and simultaneously informing the audience that the stage would begin soon [4].
Reyog Obyog are usually performed in open areas, such as village fields, large house yards, fork or crossroads, the yard of the village hall, and others where it is possible to perform performances freely. Soemarto wrote down the characteristics of Reyog Obyog's performance, as follows: (1) jatil dancers were played by girls and often did not use eblek (braided horse); (2) the audience can mingle in it; (3) not using a storyline or no scenario; (4) the number of players is not stipulated; (5) performances are often extreme, such as the attraction of pemarong shouldering jatil dancers or carrying pembarong, and even often improvising dance by making modifications from various other music genres, such as dangdut music, gambyong, campursari, koplo, and so on [5, p. 22].

Concerning the Jatil dancers on the Reyog Obyog, Kurnianto wrote the following: (1) Jatil dancers tend to bring individual dance characteristics, each jatil dancer can perform different dances even on the same stage because there is no obligation to dance, do exercises before the stage; (2) there is no obligation to wear uniforms, depending on the tastes of each panari, so that it looks colorful; (3) the make-up also depends on the request of each dancer, usually, the make-up is pretty to the point of "menor". A jatil obyog dancer show in Figure 1.

![A Jatil Obyog dancer](image.png)

**Fig.1.** A Jatil Obyog dancer

Furthermore, some of the characteristics of the Jathil Obyog movement were as follows: (1) The movements that were carried out were exploratory in music and solah movements as if at random; (2) The movements are more dominated by hip movements, such as egolan movements (lenggak-lenggok), breaking, pushing the buttocks to the right and left, the dance model tends to mimic the movements of the dangdut dance in general; (3) The application of techniques tends to be arbitrary; (4) Many movements are performed jokingly, looking at other dancers and occasionally stopping according to the dancer's will; (5) Dance movements are also dominated by movements of jaipong, dangdut, and improvisation at the initiative of each dancer; and (6) often do not use eblek as permanent property.

On one hand, the Reyog Obyog's performance model is a very good model for conservation, because it is fully supported by, from, and for the people of Ponorogo. But on the other hand, the context of this entertainment-based populist stage has unwittingly created a gender bias in jatil dancers. The fact about this manifests in the following points; (1) the edrek dance (edotan: Javanese), which was originally a form of satirical visualization, ridiculed Brawijaya V because of its leadership policies which tended not to side with the people, turned into hip dance as a
gift aimed at the pemarong, ganongan and the audience which led erotic dance; (2) improvisation that tends to follow the development of music from other genres outside Reyog, including dangdut, campursari, koplo, gambyong, provides a greater opportunity for the development of the erotic side of edrek dance; (3) edrek as a gift to the audience becomes an opportunity for "violence" or "harassment" in the form of a pinch or physical touch by the audience to the jatil dancer; (4) the effect of point 3 further allows the audience to perform the “sawer” action so freely that it often touches the body of the Jatil dancer. The facts above have further resulted in the emergence of a negative stigma attached to the Jatil Obyog dancers, such as; "cheap" women, bad women, and so on.

Meanwhile, on the other hand, Reyog Obyog's stage was also full of character values or local wisdom which had great values, among others; self-confident, unyielding, creative, disciplined. Local wisdom contained in the Jatil Obyog dance is very strategic to minimize and even eliminate the gender bias that has been happening and experienced by Jatil Obyog dancers.

Based on the facts about gender bias above, this article will analyze more deeply the character values contained in the Jatil Obyog dance to minimize or even eliminate gender bias as well as the negative stigma that occurs in the Jatil Obyog dancer dance through the development of the Reyog Ponorogo character education model.

2 Method

This study chooses a qualitative approach using a participatory paradigm, to study the development of a character education model for the Jatil dancer's gender perspective on Obyog Reyog Art. Based on the research problem, the data to be collected is a variety of information from informants (Konco Reyog) in several places/locations where the Reyog Art Association contains their understanding of the cultural formulations depicted in the art of Reyog Ponorogo and the basic framework of educational values. A character that can be broken down from the value/meaning that is displayed in the symbol of the instrument and the variety of the Reyog Obyog dance. The data needed in this study have a more emic perspective, namely data collected based on expressions, language, ways of thinking, and views of research subjects. Evaluation and interpretation of information descriptions or data presentations are derived from research subjects.

3 Results and Discussion

3.1 The Role of Women in the Art of Reyog Ponorogo

Jatil obyog with female dancers has no historical roots. The history of the jatil dancer Reyog Obyog was a man who was dressed in women's clothes and make-up. This is because the substance of Jatil Obyog is to carry the message of "satire" aimed at Brawijaya V, who because of his empress's domination, he behaves like a "sissy". However, the presence of female jatil dancers has contributed greatly to the dynamics of Reyog Ponorogo art. The change of Jatil Obyog dancers to women occurred at the request of a stage during the reign of President Soeharto at the Jakarta Fair in 1988 [3, p. 110] who asked for the Jatil dance to be performed by women. Although at first there was controversy over the change of jatil dancers to women, after
seeing the results of performances in Jakarta were very beautiful, it had an impact on changes in the jatil dancers, Reyog Ponorogo, which occurred in almost all Reyog Groups [6].

The inclusion of women in the Reyog Ponorogo dance component becomes a new chapter for women’s roles in Reyog Ponorogo [5]. Opportunities for women to reinforce their roles and participation are getting stronger along with the strengthening of appreciation of Reyog Ponorogo art from all components of Ponorogo society, including from Islamic education circles and Islamic boarding schools. At the same time, the satire content in jatil dance began to fade along with the tendency of creation and improvisation in the name of "the demands of the times". Dangdut, koplo, campursari, gambyong, and other music began to color the Reyog Ponorogo stage, especially the Jatil Obyog dance. The role of women in the Jatil Obyog dance is getting stronger because it is considered more by the demands of this development.

In certain contexts, the respect for women in the case of the jatil dancer Reyog Obyog is a sign of affirmation towards gender equality. It is this opportunity that deserves to be fought for so that their participation and role can become a qualitative action in the framework of the preservation and development of Reyog Ponorogo art, and not vice versa, become a “boomerang” for Jatil dancers.

3.2 The Gender Bias in Jatil Obyog Dance

As explained above, that the occurrence of gender bias stems from the dynamics that occur in Reyog Obyog. The development of dance creations, including the jatil dance, is so dynamic that it unconsciously "removes" the symbolic pillars of the obyog standard developed from the legend of Suryongalam (Surukubeng), which is derived from satire (satire). The demands of the stage and the context of the times were important factors in the birth of improvisation in the Jatil Obyog show. The demand for the stage gave birth to the attitude of the Jatil Obyog dancers to make adjustments, such as making up pretty or “menor”, which tends to create stereotypes. Dance improvisation requires Jatil Obyog dancers to make adjustments to the trends in music trends that are developing and liked by the community, such as dangdut, campursari, gambyong, and others. In Kurnianto’s writing, the occurrence of gender bias in the Jatil Obyog dance is as follows:

a. Edrek Dance for Ganongan Dancers.

The substance of this dance is a gift for the Ganongan dancer who has finished performing the dance action, which is to display his skill in dancing the Ganongan dance through a charming dance action. One by one the Jatil Obyog dancers gave an edrek dance in the form of a hip lenggak lenggok dance and even seemed "seductive" to where the ganongan dancers were so close and often in contact with the ganongan's limbs. Edrek dance for ganongan show in Figure 2.

Fig.2. Edrek Dance for Ganongan
b. Edrek Dance for Pembarong

As in the edrek prize for Ganongan dancers, this edrek dance is also the same pattern, namely the Jatil Obyog dancer advancing towards the pemarong who has completed the action by swinging his hips and smiling impressively "teasing" up to a very close distance like what happened to the Ganongan dancer. Edrek dance for pembarong show in Figure 3.

Fig.3. Edrek Dance for Pembarong

---

c. Gambyong Dance

The Jatil Obyog dance which is improvised from the Ganongan dance is usually performed in freelance music performed by Reyog Ponorogo music. Jatil Obyog dancers are very free to dance according to the music that is being sung. The part of the Jatil Obyog dance performance that was most excited was the dance session, which triggered all the audience to sing and dance together [7]. At this dance session, the audience can freely approach the Jatil dancers to just dance or to be able to touch the Jatil dancers' bodies. During this session, saweran was also given and sometimes the performer was used to touch the Jatil dancer's body. Saweran for jatil obyog show in Figure 4.

Fig.4. Saweran for Jatil Obyog
In the three edrek aimed at ganongan dancers, pembarang, and the audience, if you pay close attention to the movements of the jatil dancers, it will consistently start from the right side. There is no explanation for this fact because there is no research that explains this. There are several possibilities, as written by Kurnianto, that the movement from the right is due to the following factors: (1) the demands of the standard or standard guidelines for the jatil dance; (2) moral demands as a tradition of Javanese people that have taken root, namely the culture of unggah-ungguh (manners) which in Javanese culture or tradition, for example, is shown to the right [3, p. 111]. If this is true, it means that the edrek dance also stores local wisdom that can be included in the character or value of the Jatil Obyog dance.

3.3 The Character Education Model of the Jatil Obyog Dance

The characters contained in the Jatil Obyog dance are creative, confident, disciplined, and never give up. The creative character [8] is visualized by dynamic dance movements and is very flexible to accept other dance aspects, such as dangdut, campursari, gambyong, and so on. A confident character is visualized in the movements of a horseman who is agile, skilled, and always on standby. Discipline character appears in the compactness of the dance accompanied by obyog music, even though each jatil dancer often performs different dances. Meanwhile, the unyielding character is seen when advancing to battle with Singo Barong (Barongan) [9].

The local wisdom contained in the Jatil Obyog dance, as described above, is strategic enough for the preservation and development of Reyog Ponorogo art, as well as an effort to raise new awareness about the importance of a role for women in the public sector to increase the balanced competitiveness of women and men regardless of gender, as well as a motivation that produces a high work ethic, related to the role and participation of women in the Ponorogo jatil dance. To realize the big ideas above, education is the main consideration in realizing it. As Riningsih wrote, the theme of gender should not only be studied in a theoretical manner but also be required to be applied in a concrete manner [10, p. 25].

The gender perspective character education model in Jatil Obyog dance, on the one hand, will be a major activity related to gender education. Meanwhile, on the other hand, as written by Iman, et al., Character education in Reyog Ponorogo art will be a very strong basis for preservation because it is fought for by the supporting community in various forms [11, p. 32]. This was confirmed by Hadiwinoto, that conservation must live and develop in the community. Conservation must be fought for by the wider community [12, p. 30].

Referring to the Reyog Ponorogo art character learning model, which has been written by Kurnianto, et al., Package 4 about the values of Islamic education in the art of Reyog Ponorogo, the sub-chapter of the Reyog dance variety, includes the dhadhak peacock dance, warok dance, jatil dance, pujangganong dance, and dance kelanasewandana [9, pp. 77–104] can be used as a basis for developing a character education model for the Jatil Obyog Reyog Ponorogo dance.

The components of the development of the Jatil Obyog dance character education model with a gender perspective are as follows:

- The object of implementation is the Mini Reyog Group, with the consideration of facilitating the cultivation of character as well as strengthening the continuing heritage of Reyog's art.
- The learning design follows the inquiry model which provides full opportunities for students to discover for themselves the Jatil Obyog dance character.
- The learning method is discussed through observing the Jatil Obyog dance video based on the legend of Suryongalam (Surukubeng).
The gender perspective is directed at the findings of the character based on the legend of Suryongalam (Surukubeng) to restore the basis of Jatil object dance creations as satire. Gender perspective is also directed to the role and function of women in the Jatil Obyog dance.

The learning evaluation is directed at the practice and dance creations developed by the student according to the characters found in the Jatil Obyog dance.

4 Conclusion

The gender bias that occurs in the Jatil Obyog Reyog Ponorogo dance will depend on the attitudes of all parties. All have the right to determine whether the cultural thinking pattern can be changed or that gender bias will continue to be cultured. The role and participation of women who have contributed greatly to the preservation and development of Reyog Ponorogo art through the Jatil Obyog dance should be a strong basis for building mutually beneficial relationships with fellow Konco Reyog according to their respective roles and functions.

There may be many options that can be chosen as an effort to fight for the position of female Jatil Obyog dancers, but the world of education is allegedly the most effective for massive movements towards affirming the noble status of women through learning the character of Jatil Obyog dance with Reyog Mini as the basis for its implementation.

Acknowledgment


References


The Feminist Saga: A Risk or an Opportunity for Indonesian Womenpreneur Towards Feminist Attitude in Twitter?

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Abstract. Performance of the social media communication system can be analyzed by creating suitable digital method approach, measurement, and models. The communication perspectives are shown by utilizing features in Twitter conversation and navigation system and image-based measurements together. This study report on the findings about the practical use of Twitter in womenpreneur accounts in Indonesia to reveal their interpretation and image production of Feminist concept. A digital method approach to womenpreneur Twitter accounts is obtained. The data is qualitatively analyzed in relations to feminism concept. These are integrated to obtain communication data more accurately for the Feminism concept. It shows color scheme, topic, and event organizing as channels to interpret concept of feminism. In addition, the importance of gender is used to support the attitude information of the communication. Feminine image and relatable topics were key contributors to their own interpretation of the concept of feminism. The results advocate for a more nuanced understanding of the relation between social media conversation and social media users, as indications of awareness of feminism discipline.

Keywords: Feminist saga, Womenpreneur, Twitter

1 Introduction

“I was raised to be an independent woman, not the victim of anything. If we do not lift up women and families, everyone will fall short” [1]. The quote is taken from one of the favorite quotes circling the Internet after Kamala Harris was elected as the first female vice president of the United States of America. Some people look at her important role in one of the powerful countries in the world from her racial background [2], [3], but some feminism activists and supporters praised her accomplishment [4].

While feminism focus on the gender issue, most of the attitude and identity of feminist is not only concentrated on the issue but it widens to the area of political ideology, sexuality, and social justice [5]. Feminism has been at the heart of modern development where it is spread beyond western countries. Countries in Asia, for example, perceived feminism as western ideology and addressed it within their local context [6].

One of the identities and attitudes within the concept of feminism is gender equality. It refers to how women make social and political playing field at the same level. This fact turns into feminist resistance where women ask for more opportunity or make their own way to explore opportunities within their community [7]. Education, job, public facility, political role,
and technological access are some of the social and political ranges where feminism asks to be equal despite gender difference.

Making a living in the competitive environment narrows job opportunities with increasingly higher number of job applicant to job openings. Some society even make this competition even harder in the perspective of gender background [8]. Looking at this level of competitiveness, people look towards entrepreneur prospect. This study aims to look at the concept of feminism within women entrepreneur in Indonesia.

The concept brings identity and attitude guiding their communication style. The terms women entrepreneur known as womenpreneur after the Global Entrepreneur Summit [9]. Their communication style reflects some identity in the message they choose, and this study explore a specific social media communication to reveal the concept feminism representation within the platform.

## 2 Method

Three accounts associated with the womenpreneur spirit in Indonesia were discussed in this study. Each provided digital data as primary data which were covering conversation and navigation system and image-based measurements in Twitter platform. A digital method approach was implemented for this study. A digital method approach mostly done using software but only just a browser would be considered digital method [10]. This study employed features from Twitter web-based access. Four thousand two hundred and twenty-two tweets were identified and analyzed. The number of tweets came from three community accounts which focus and promote womenpreneur ideas in Indonesia. They are @womenpreneuridn, @womanpreneurcom and @DeDasterpreneur. The reason behind the selection of the three accounts is because they are using the idea name as the focus of this study as well as the idea that they are promote using their accounts. All accounts had directly showed the concept of celebrating the womenpreneur by posting the idea in the field of business and not from universal gender perspectives.

The data from the accounts, which are categorized in a communication pattern, analyzed using elements in Feminist concept and theory. There is a choice of message and deliverance as well as type of images that had examined in the data analysis step. Each data represented a certain public representation to the followers and the general Twitter users. The data is taken from their accounts which can be accessed publicly. Some of the posting also in the form of retweets where the accounts only reposted some tweets from other Twitter accounts without any comment. The total postings in the three accounts were explored from their first posting until the beginning of November 2020. The three accounts were chosen because the relatively decent number of engagements to help the data gathering process where data is important to reveal the Twitter communication strategy and pattern in Feminist concept presence.

## 3 Results and Discussion

This Result and discussion derived from the data present in categories as findings in this study which will be explained below.
3.1 Community not individual

Representation in Twitter conversation shows that identity is clearly defined as women who conduct a kind of entrepreneurship. Twitter has been a place where entrepreneur get information, inspiration and motivation [11]. The three Twitter accounts are organization or to be precise community. Their communication as a community reflects not only one female individual, but a group of females joined in an agreement to certain identity and attitude.

The first data is from womenpreneuridn. They have communicated in Twitter with their official account since 2018. Getting their identity from the names is obvious hence, their choice of the color in their logo tend to use pink which associated with feminism element. Figure 1 shows the color choice but not really reflect the mission of the account in the profile picture. Interpreting from their bio which says,” Empowering Indonesia Womenpreneur makes this study chose this account as the data. The number of tweets posted by this account within the data gathering period contains motivational quotes and events publication. Users in Twitter proven to follow brand or personality that similar with their own character [12], therefore the motivational quotes in particular aim to attract like-minded who appreciate the specific quotes. The quotes contained in this Twitter account empowered women to learn, step-up, be grateful, take risks, etc. The tweets that covered quotes unfortunately only text-based tweets. Motivational-quote tweets in a form of image or animated tweet represents stronger and more interesting contents [13].

They show good networking with entrepreneur community with the guest they invited in their events. For example, they invited Wanda Ponika as one of the successful womenpreneurs in Indonesia. They also invited Sandiaga Uno, a former vice president candidate and successful entrepreneur for one of their events. Networking value in Twitter mirrors how this account manages to maximize features provided by Twitter to inform, entertain, motivate audiences that follow or come across their tweets [14].

Within the posts, they promoted the strength of women in entrepreneurship as the bio and name of the account stated. Motivating women in Indonesia and even organized events and facility (such as coaching and seminar) for women to be entrepreneur. Intrinsic motivation has a significant role in Twitter usage as many users looking for motivation in this platform [15].

![Womenpreneur.id](https://example.com/womenpreneurid.jpg)

Fig. 1. Womenpreneur.id
The next account that shows the identity of feminism in the area of entrepreneurship in Indonesia is DeDasterpreneur. They name implies daster in Indonesian which mean a dress. So, the username clearly targets women, and the full name of the account is Wanita Pengusaha which literally means womenpreneur. This account looks less formal than the previous one because of their choice of name and the bio, “walopun dasteran, mendidik & memantau perkembangan anak, sambil masak lauk favorite keluarga tapi INCOME teteup mengalir DERAS, mau?” “Even though in our dress, educating & monitoring the development of our child, while cooking our family's favorite dish but the income still flows swiftly, want to know more?” Figure 2 shows that profile picture in this account reflects women identity with closeup photo of a face of smiling woman. Workshop, conference, speech, and competition are some of the messages their posted in the tweets. Informing the niche community practiced by this account and the accounts alike underlining events such as workshop as product of information within the community [16]. The reposting tweets from some of their networking users and external events organizer is recorded from their account. The color scheme does not show any identity of feminism but profile picture and header banner show women picture and drawing.

Fig. 2. DeDasterpreneur

The last account that has been explored in this study is womanpreneurcom. The bio clearly stated their mission. It says, “Karya Perempuan Indonesia- Womanpreneur Community. Wadah perempuan jadi womanpreneur Tangguh & Kreatif.” While Twitter is a proven social media platform to support community [17], this account mission is not only limited to Twitter but also active in their own website. A place for women to be tough & creative womanpreneurs”. Looking at their posts, which is the highest among the other, the retweets show their exposure from the national mass media where they attend and promote the idea and mission. The logo and header banner show the settle color scheme which refers to feminist tone. Figure 3 shows that this account only uses their logo for their profile picture. This account also posted their social contribution such as when they donated money to health workers during the pandemic Covid-19.
The below research data in Table 1 is the result from the digital method approach where this data available for public access. This data is the basis of discussion in the study where it complements the explanation. This table is also an additional data which guides this study conclusion which will contribute to the study of social media and the concept of feminism and entrepreneur.

Table 1. Research Data

<table>
<thead>
<tr>
<th>ID</th>
<th>Bio</th>
<th>Total Follower</th>
<th>Total Tweets</th>
<th>Joined Twitter</th>
<th>Username</th>
</tr>
</thead>
<tbody>
<tr>
<td>10511569271</td>
<td>Empowering Indonesia Womanpreneur</td>
<td>1105</td>
<td>126</td>
<td>2018-10-14, 00:05</td>
<td>womenpreneuridn</td>
</tr>
<tr>
<td>64559360</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>625248936</td>
<td>Karya Perempuan Indonesia-Womanpreneur Community. Wadah perempuan jadi womanpreneur Tangguh &amp; Kreatif</td>
<td>822</td>
<td>3972</td>
<td>2012-07-03, 08:55</td>
<td>womanpreneurco</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
4 Conclusion

To conclude, this study contributes to the argument that feminism does not need to be a resistance form within the society. This concept, especially in the eastern culture, does not need to be head-to-head rivalry with the opposite gender. The communication system from the data reveals that social media still a chosen communication channel where identity and attitude can be formed, in this case feminism. The concept of feminism found in this study especially exposed the gender equality. Women also have the equal opportunity in the area of entrepreneurship.

Communication in Twitter allow them to show identity using color scheme and message which encourage public especially their target audience to understand and eventually join their cause to be womenpreneur. The knowledge sharing also utilize in social media platform making the digital feminism popular among younger audiences [18].

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References


The Concept of Building Function Feasibility Certificate to Realize SDGs in the Job Creation Law Paradigm

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Abstract. The complicated permit for a Function Worthy Certificate at the regional level becomes an obstacle to the operational process of building construction. The Job Creation Law comes with a Function Worthy Certificate To function at the central level to simplify and accelerate investment for the benefit of the community. This study aims to analyze the building reliability licensing process in the Job Creation Law to obtain the most effective building management, licensing mechanism for realizing reliable buildings with a vision of sustainable development for the community welfare. This type of research is normative juridical with a statutory approach. The research results show that the simplification of the building function feasibility certificate licensing in the Job Creation Law becomes the central government authority with verification carried out by the local government. The most effective licensing mechanism is to create a building certified testing standard to supervise verification at the regional level through a one-door integrated information system integrated between the central and local governments. Besides, it is also necessary to confirm the application of administrative sanctions by establishing a building reliability supervisory board. This research is expected to be useful in building law, state administrative law, and licensing law.

Keywords: Certificate of building function feasibility certificate, job creation law, sustainable development

1 Introduction

The Association for the Development of Housing and Settlements throughout Indonesia (Apersi) stated that the rules regarding the guideline for Function Worthy Certificate (SLF) in the regions are still not in harmony with one another that leads legal uncertainty [1]. Apart from the perspective of the property developer, community is also in disadvantage due to the unreliability of the building, for example the collapse of the IDX Building in Jakarta on January 15, 2018 which injure 77 people that later turned out caused by a negligent supervision of the certificate of building function worthiness [2]. According to Apersi, the uniformity of central and regional government regulations related to Function Worthy Certificate Has created a problem. The Function Worthy Certificate (SLF) as mandated by Law Number 28 of 2002 concerning Buildings grants the regional government an authority to form a regional level regulations regarding the Function Worthy Certificate(SLF) but until 2019 there are only 93 districts/cities that had issued a regional regulations or mayoral regulation about Buildings and...
only 48 Regencies/ Cities that had issued building function worthiness certificate [3]. Several problems related to the feasibility of buildings actually arise due to the complicated building permit system in which the authority to grant building permits (IMB) and Function Worthy Certificate (SLF) are at the regional level that are not yet ready, this is evidenced by the absence of regulations at the regional level which also causes obstacles in the building construction process.

Various studies have been carried out in Building function worthiness certificates. Hamka conducted a study on the Analysis of Building Bureaucratic Service Licensing Behavior in Parepare City with the results of the research stating that building permit services still use transactional bureaucracy characterized by a lack of information related to licensing mechanisms, time spent in terms of licensing also costs a lot of money. In addition, from the aspect of bureaucratic professionalism, service discrimination and service interventions still occur. From the aspect of responsiveness, the authorities are less responsive to community concerns, especially in administrative requirements [4]. Research done by Mustaghfiri on the quality of Building Construction Permit Issuance Services at the Surakarta Investment Service and One Stop Integrated Services with the results of research showing that licensing services are conventional and still do not meet the elements of technological progress [5]. Harisun examined the Study of the Building Function Acceptable Certification System in Ternate City, North Maluku Province with the results of the research stating that the Building function worthiness certification process had not been running at all due to the inability of the regional government to carry out the mandate of the Building Law and the Minister of Work Regulation Number 25 of 2007 [6]. From the previous research, it shows that the complexity of the building permit process and the Function Worthy Certificate Are not yet optimal, but no one has yet discussed the clear concept of regulation as a future legal ideal regarding building reliability licensing that takes into account sustainable development and is in accordance with changing times that require short amount of time in the licensing process, especially in the presence of a Job Creation law. For this reason, the author will conduct research on the concept of permitting regulations for a Function Worthy Certificate In the future to create reliable buildings with an environmental perspective to realize SDGs and provide legal certainty.

Furthermore, this research will discuss the problems regarding the complexity of the current Function Worthy Certificate Which is used by researchers to form the basis for formulating a building permit policy, especially regarding Function Worthy Certificate As an important instrument in building construction management so that it can be used as a reference for the government and society in the future.

2 Methods

The research uses normative legal research method. The approach of this research is statutory and conceptual approach in which secondary data is the main data. Secondary data in this study are divided into primary legal materials and secondary legal materials. Primary legal material is a legal material that is authoritative and binding such as Law Number 11 of 2020 concerning Job Creation, Law Number 28 of 2002 concerning Building, Law Number 26 of 2007 concerning Spatial Planning, Law Number 25 of 2009 concerning Public Services. Whereas secondary legal material is legal material which in nature, explains primary legal materials such as journals, books and others. Legal materials mentioned above were collected
through library research techniques with qualitative analysis technique. This qualitative analysis technique is intended to assist the writer in making the correct conclusions.

3 Results and Discussion

3.1 Critics of the function worthy certificate concept in previous regulations

Feasibility is a building condition that meets administrative requirements and technical requirements in accordance with the defined building function. Meanwhile, what is meant by Function Worthy Certificate is a certificate issued by the Regional Government to declare the proper functioning of the Building as a condition for its use, with the exception for Special Function Buildings that is issued by Central Government [7]. Function Worthy Certificate is a type of permit that is still unfamiliar to the public, as evidenced by the fact that from 514 Regencies/Cities in Indonesia there are only approximately 93 City/Regencies that had issued building regulations and only 48 Regencies/Cities have implemented Function Worthy Certificate issuance. Moreover, out of 514 regencies/cities, there are only 75 regencies/cities that carry out data collection on buildings with the number of technical reviewers not more than 50 [3].

Function Worthy Certificate licensing is regulated in Law Number 28 of 2002 concerning Buildings, where the use of the building by the owner or user can be carried out after the building is declared to meet the eligible requirements, namely the fulfillment of the technical requirements [7]. Function Worthy Certificate in Law Number 28 Year 2002 is issued by regions through regulatory instruments at the regional level. The problem then arises due to the fact that not all regions had issued regulations regarding Function Worthy Certificate, which in turn results in the absence of legal certainty while the buildings have been built that would lead to disrupted utilization. Not to mention the regulations’ horizontal inconsistencies, such as the rules regarding fire prevention in DKI Jakarta which are not in sync with the Function Worthy Certificate regulations, which caused confusion for practitioners in designing buildings which in turn hampered obtaining recommendations from the Fire and Rescue Office to obtain Function Worthy Certificate [13].

The concept of Function Worthy Certificate licensing in the paradigm of previous building regulations has actually met electronic-based licensing standards marked by the emergence of an Building Management Information System based on Online Single Submission as mandated by Government Regulation Number 24 of 2018 concerning Electronically Integrated Business Licensing Services where in Article 75 it states that building owners are required to have Function Worthy Certificate in the framework of the building operation. This means that if the business owner cannot submit the Function Worthy Certificate to the Online Single Submission system, then the business operational license cannot be issued or extended. The emergence of the electronic-based licensing era did not immediately solve the existing problems because in the Building Law there were many administrative and technical requirements that required a long time while in the Online Single Submission system, business owners whose operational permits were running low, became hurried in managing Function Worthy Certificate, while in fact the issuance Function Worthy Certificate requires a careful process, including the review process by the construction supervisor or technical reviewer. In addition, after a study or report from a Construction Supervisory Service Provider or a Technical Review Service Provider conducted, the Regional Government still has to re-examine it. In addition, licensing through
Online Singe Submission is also hampered by various regulations that are not synchronized with one another [8].

The process of obtaining Function Worthy Certificate which takes requires a rigorous amount of time even though it has been integrated electronically on the one hand and the need for business owners to immediately take care of their business license on the other hand is a problem that must be resolved. Solving the problem regarding the feasibility of the building should not leave another problem that is motivated by the desire to quickly finish the matters regarding the Certificate of Worthiness so that it would lead to corruptive practices which in the long run has an impact on unreliable buildings due to ineffective function which in the end the building stands not in accordance with the principle, objectives and functions as regulated in the law.

The corruptive practices in the licensing sector can be seen from the existence of illegal levies. The practice of illegal levies in the issuance of Function Worthy Certificate is still a major problem in the implementation of building law which causes public misconception from the community regarding the Function Worthy Certificate licensing to be expensive [9]. Even at the level of practice, illegal levies in granting building permits are carried out massively and structurally with bureaucratic logic as an excuse. For example in Samarinda, local officials looked for administrative errors by the applicants, delayed files and threatened to seal buildings as reasons for asking for illegal fees [10].

According to the author, the practice of illegal levies in the midst of the existing electronic-based licensing system indicates that the function of laws and regulations is not optimal in regulating the licensing process, which would then be causing a conflict, disharmony, inconsistencies and even overlapping authority and weak supervision, plus lack of understanding of the implementer in understanding the rules legislation.

3.2 Licensing certificate of acceptability of function in the job creation law

Omnibus Law is a way to simplify licensing law. Reports issued by the World Bank stated that Indonesia is ranked 91 out of a total of 190 countries in terms of ease of doing business or it is often called Ease of Doing Business (EoDB) [11]. The ease of doing business in Indonesia is hampered by the number of disharmonious regulations that cause legal uncertainty because these regulations are made without clear objectives to be achieved so that the regulation is said to be a red tape. Bozeman states that red tape regulation is a regulation that contains a very high degree of formalization and barriers, unnecessary rules and procedures, inefficiency, and unclear delays so that they are considered as obstacles to the performance of public sector organizations [12]. Pandey and Scott state that in red tape some regulations do function, but in some cases, these regulations become a burden on compliance and can have a negative effect on organizational performance. Regional governments on one hand as implementers of national (sectoral) policies, and on the other, also has the authority to formulate regulations or exercise discretion regarding business licensing services. Finally, there will be various and many types of permits in the regions so that the licensing procedure will become more complicated, especially if the regulation is in conflict with the national policy on the paradigm in working copyright law in building permits is that the RBA Risk Based Approach concept is no longer based on a license approach, the RBA concept will have an impact on the implementation of licensing issuance that is more effective and simpler. Supervision activities also become more structured, both in terms of the period and substance that must be supervised. However, it is not clear how it will be implemented. This means that the new regulations should not be able to
solve the problem of SLF licensing considering the importance of SLF in a building for building reliability.

In the working copyright law, the rules regarding administrative and technical requirements are abolished but regarding the certificate of eligibility to function still exists and becomes a factor in the simplification of the basic requirements for business licensing as regulated in Article 13 of the Job Creation Law. Certificate of eligibility to function in the Job Creation Law issued by the Central Government or Regional Government according to their authority based on a statement of feasibility of function submitted by the Construction Supervision or Management Service Provider to the Pusa Tana Regional Government according to their authority through an electronic system operated by the Central Government, based on norms, standards, procedures, and the criteria set by the Central Government.

The concept that the author offers is the integration of building permits into an electronic system under the responsibility of the Ministry of Public Works and Public Relations and integrated with national planning agency (Bappenas), the Ministry of Agrarian Affairs and Spatial Planning (ATR BPN) and Capital Investment Coordinating Board (BKPM) as well as district / city governments. The PUPR Ministry is responsible for building reliability, Bappenas is related to building construction in accordance with development planning, BKPM is related to one-door licensing and the Ministry of Agrarian Affairs is related to accuracy with the spatial planning agenda so that building construction does not violate spatial planning, especially in The Building Work copyright law refers to the detailed spatial plan (RDTR). Furthermore, the role of the regions must be involved because regions that understand the objective conditions of their territory, its role is the filtering of buildings to be granted a permit which is registered at the beginning of the year which will later be integrated into the annual regional development plan. This filtering is useful so that there are no illegal buildings and makes it easier to monitor them. The results of the filtering will be entered into the building electronic system. To carry out its technical functions, it is better if an independent building supervisory institution is formed consisting of certified building experts so that it is necessary to have a building expert certification body integrated in the building electronic system in order to avoid reactionary building construction experts who will lead to illegal fees and corrupt actions. Furthermore, the authors assess the need for a Government Regulation which regulates those buildings do not have sustainable development aspects and harmony with nature which includes energy conservation and efficiency, water conservation and efficiency, indoor air quality and thermal comfort, land and waste management, implementation of the construction period. on buildings, and pay attention to the elements of climate change adaptation. If these aspects are not fulfilled, then no building operation permit and SLF will be granted. In Indonesia, there are still many buildings that are not environmentally friendly and do not have green open spaces, so it is not too late to fix them. water conservation and efficiency, indoor air quality and thermal comfort, land and waste management, implementation of the construction period for buildings, and attention to elements of climate change adaptation. If these aspects are not fulfilled, then no building operation permit and SLF will be granted. In Indonesia itself, there are still many buildings that are not environmentally friendly and do not have green open spaces, so it is not too late to fix them.
4 Conclusion

Building permits are long and complicated that has been occurring so far has resulted in a slow building utilization process which has led to corrupt practices that have resulted in building unreliability. The Job Creation Law facilitates business licensing, one of which is by presenting regulations regarding building permits, including SLF, which is the authority of the central government to avoid complicated licensing at the regional level. In order for the application of the Job Creation Law to be good and not cause new problems, an electronic-based licensing system is needed that integrates between related sectors including the region as a verifier, this system is also accompanied by the existence of an independent building supervisor certification for buildings who are competent in their fields.

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References

What Students Say and Do to Support Their Digital Learning

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Abstract. This study is a case study in relation to Covid-19 learning activities. There are 45 university students enrolled in this study with the same style of instructional model. From the data, it can be concluded that there are six aspects considered by the students. They are process, motivation, social media applications, access, effectiveness, and personal preference. From the six aspects, process is mostly highlighted by the students. They are full conscious that their digital learning requires their independency in achieving the learning goals. The social media application, e-learning platform and What’s Apps, are also considered by the students as one aspect that influence their learning. The internet access is viewed as one crucial problems of the students’ digital learning since most of the students live in rural areas. Based on the students’ responses on their learning motivation, the students share that they felt unmotivated and less focus on the online learning. Lastly, the learning is less effective for the students as they have more limitation to the internet connection. However, the students realize that they have to be more active to update themselves in order to keep up with the changes given by the lecturers. Therefore, a number of suggestions and implications are discussed under the topic of digital literacy, positivity for transformation, self-regulated learning and reflective skills to support learning reflection.

Keywords: online learning, autonomous learning, reflection

1 Introduction

The swift mode of the English language teaching in Indonesia cannot be avoided during the pandemic Covid 19. Everyone is trying hard to deal with the condition of worried and anxiety. The condition during the pandemic does not allow people to get direct interaction through face-to-face meeting. They should keep themselves at homes and do everything they want to do at their homes [1]. With the use of digital media, people get interaction with others and to support their normal activity before the pandemic. Students are learning from home through their online learning media. Teachers teach their students through sufficient learning media and techniques and methods to support the achievement of the learning goals. Parents are working very hard to make their children learn during their job.

Everyone should stay at home and avoid the community services that require togetherness in each activity especially during the language teaching. The process of language teaching is also done in its limitation due to the pandemic. Both the students and the teachers should face different teaching and learning instruction that might not be familiar for them. The teachers should change their teaching media and styles to support the new ways of teaching during the pandemic. Teachers deliver lessons by launching online courses with short notice of time [2].
In Unimma, the use of MOCA (My Online Class) supports the teaching and learning process that can also be done through the use other applications, such as, Zoom Meeting, Google Meet, and Cisco Webex Meeting. The use of other application can improve the benefits of the MOCA for both the students and the teachers from the applications that they can use such as video conferences, quizzes, games, and other synchronous interaction. Both the teachers and students have the possibility to level up their teaching and learning especially during the pandemic.

The digital learning teaching and learning shares different learning environments and behavior. The students and the teachers belong to different generations in which they have different characteristics. Today’s language learning in university level belong to digital natives while the teachers belong to digital immigrants. Students of digital native are native speakers of the digital language of computers, video games, and internet while the digital immigrants refer to those who were not born into the digital natives but have to adapted to the most aspects of technology [3]. The teacher and the students are from different era that require different ways of teaching and learning [4]. This situation provides different learning environment for the teachers and students.

Before we move on the process of teaching and learning process through digital media, it is better to know a number of terminologies used in digital learning, i.e., blended learning, online learning, and computer-assisted language learning. The blended learning is done with the combination of both the offline and online learning during the teaching and process. The online learning is done fully through online media without face-to-face meeting. Finally, the use of computer-assisted language learning enables the teacher and the students to have the process of teaching and learning through the use of computer that may be done both online and offline. The online learning is proven to be effective to accommodate the students in improving values of the learning environment [5].

The process of teaching and learning during the pandemic in Unimma has a number of differences. First, the teaching is not done in a real face-to-face class since there is no possibility to gather in one room. The teaching and learning process is done through the use of digital media, MOCA, and another video conference (zoom or Cisco Webex). Second, the duration of the teaching and learning is not equal to the real class meeting since there is a need to deal with the students’ limitation in using credits for their digital learning, the internet connection, and also the gadget used to facilitate their learning. Third, the interaction is also different between the students and the teacher. In real face-to-face class, the students are able to directly ask questions to address their difficulties and it is quite hard for the students to have it through the digital learning. The teacher also felt it problematic to know the students’ current condition during their learning as the teacher cannot directly see how the students’ responses.

Another aspect of the teaching and learning is the students’ learning characteristics during the pandemic. As mentioned earlier, the students are digital natives that are familiar with the use of internet and its technology. Digital natives work best with images than text and function well when networked and supported by digital technologies [6]. Digital natives have broad experiences of using technology in their daily life. Actually, they prefer to have blended learning instead of only offline learning. They know that the use of digital technology can improve their learning motivation and their curiosity. The existence of digital native switch the education system to consider how the teaching should be change [4]. With the multimodality of the modes used during the teaching and learning can also vary the teaching and learning that can not only increase the students’ learning motivation but also their understanding of the learning materials because of the visual explanation through the digital media.
As the base of the teaching and learning processes, the education policy requires the teachers and the students to implement online learning during the pandemic. The ministry of education supports the teaching and learning by providing several solutions for the students and teacher to deal with the learning facilities. The educational policy should include the level of digital competency, computers, and internet connections [7]. The learning media are also prepared by the government using television, radio, and internet. The learning media ranges from the early child education until the senior high schools. While for the university students, the government gives free cards for the students to have the internet connection for their learning.

What are needed by the students to deal with the pandemic during their learning? It refers to their personal learning level. The students are not only required to complete the process of learning during the teacher’s explanation but also to learn autonomously and independently. With the limited duration of teaching and learning, the students are expected to be able to keep their motivation to learn independently [8]. The roles of parents are also crucial in achieving the learning goals since the students need guidance and control from their parents. The parents’ roles substitute the teacher’s roles during the class. The parents should be able to help the students whenever they need help from their parents to deal with their learning problems. Then, the parents are also expected to be able to control the students’ learning activity to succeed their learning. The supports from all aspects will play important factor to achieve the purpose of teaching.

2 Method

This study was a case study which focuses on the qualitative data. The purpose of this case study is to obtain and examine data in a context that involves selected members of research participants in a school community [9]. The data were gathered through questionnaire and interview with several respondents related to the study. There were 45 university students filled the questionnaires and interviewed about the use of online learning during the pandemic. The questionnaires and the interview were done through the use of digital media i.e., Google form and voice calls. The data were analyzed through a qualitative process of analysis starting from data transcribed verbatim, coding the data, analyzing the data, verification, and writing the findings of the study [10].

3 Results and Discussion

From the data gathered, it can be concluded that there are five aspects considered in this study dealing with the students’ perspectives on digital learning during the pandemic Covid 19. They are process, motivation, social media applications, access, and effectiveness.

3.1 Process

The main process of the language teaching was done through the use of online learning. The teacher presents the learning materials at first and give more time to have more join construction and independent learning activities. Having online learning provides more opportunities for the students to explore themselves to have individual learning [11]. The
explanation is started by providing questions to get the first information about the students’ current understanding. The questions addressed were about the learning materials and their implementation on their study. The explanation was done through zoom meeting or Google meet to share direct communication through video conference. The explanation was delivered by responding the students’ feedback on the learning. One challenge to do this is the possibility of the students not to focus on the learning process since they did the learning activity at home. Learning at home might interrupt the students’ concentration. Therefore, the teacher should be able to keep their students’ attention on the teacher’s explanation.

In addition, the students’ responses on their learning activities is in term of its complexity. The students have to do a number of tasks in one day as the main learning process was done through autonomous learning. the task developed should stimulating learning conditions that promote interaction and collaboration to increase the students’ interest and ability to learn autonomously [12]. They argue that the tasks are too complicated and should be done in a short time. With its practical problems such as the electricity, the internet connection, the gadget used to do the task, and also the students’ learning endurance. When they face problems in completing the task, the students will lower their learning endurance if the electivity or the internet connection were not good enough. Many of the respondents’ state that the use of internet connection and the electricity become the main problems during the digital learning process.

However, the students believe that the use of technology during their online learning support themselves to get more about the learning materials, they have the access to get more varied and updated learning materials. They justify that the mastery of reading skills will increase their understanding on the digital texts accessed through internet. Through scanning and skimming, the students may increase their reading speed and they can level up their reading comprehension. They argue that the more they read the more they understand the learning materials.

The students are required to train their critical reading skills to support their reading and independent learning process. The critical reading skills are taught by applying the use of higher order thinking skills. In addition to the implementation of online learning, the asynchronous interactions in online learning encouraging critical thinking are crucial to provide opportunities to process information, reflect, and investigate actively [13]. The higher order thinking skills include the lower order thinking skills. As mentioned in Bloom’s taxonomy, the higher order thinking skills deals with remembering, understanding, applying, analyzing, evaluating, and creating. Each level is supporting the next level until the final level, creating. The critical thinking skills are employed from the process of analyzing, evaluating, and creating. With the process of higher order thinking, the students are required to analyze the text. The next level is evaluating in which the students make judgment on their assessment about the text. Finally, the students are expected to be able to create similar text type after they analyze and evaluate the text. This will enable the students to be ready with the higher level of literacy, creating texts.

3.2 Motivation

Learning motivation belongs to one important aspect in students’ learning achievement. Motivation to begin online learning is relevance to the technological competence and age that can predict the students’ satisfaction and sustainable learning [14]. Learning motivation guide individual learning goals which include learning behavior, learning goals, efforts, cognition history, and strengthen and improve the outcomes. Both the intrinsic and extrinsic learning motivations complement each other. Intrinsic learning motivation comes from the inside of the learners while the extrinsic motivation is from the outer side of the students. The intrinsic
learning motivation can be the main reason why a learner study for example because he or she wants to study. While the extrinsic learning motivation is due to external factor such as reward. The instructor behaviors and social interactions enhance the learners’ motivation on online leaning [15].

Another surprising response dealing with the students’ learning motivation is not linear as they are digital natives. The students felt that they did not have high learning motivation to learn through digital learning. This is quite different from the result of a study conducted by Lin, Chen, and Liu that digital learning shares positive impacts on students learning motivation. Further, with the high learning motivation, the students can achieve remarkably learning achievement. They expect to have offline class since they can have total learning environment when they are at the campus. The students also felt that they cannot fully focus on the learning materials.

Actually, the digital learning motivation also increases the students’ willingness to complete the tasks that are organized properly. It is logical if the students felt stressful during their learning since they have to deal with a number of tasks that will not give them time to relax. The students need to have exact learning tasks to make them complete the task well and positively. This is in line with the finding of the implementation of digital story telling that can increase the students’ willingness to get involved into the learning activity [16]. Students’ willingness belongs to one of the skills needed in the 21st century.

There are many applications that the students and the teacher can do during their digital learning, the two most applicable application that were used by the teacher during the teaching is the What’s App and zoom meeting. To support the assignment that students should complete, the use of Moca is highlighted. The three media used are completing each other.

The what’s App is used in the beginning of the class to make an appointment with the students. Both the teacher and students discuss what they will do during the class. They discuss the schedule and the main process of language teaching. The What’s App communication is done through What’s App Group that consists of the class members. This will minimize the miss communication between the teacher and the students. The use of What’s App is also viewed as a beneficial one since almost of the students use this kind of application to communicate.

After the communication through What’s App group, the class is done through Zoom meeting. The Zoom meeting is done in a once full meeting around 40 minutes. This is done by considering the students’ condition to have 100 minutes zoom class meeting that will consume their credits. Therefore, the class is done though zoom meeting first and followed by the use of Moca. In the zoom meeting, the teacher explains the learning materials and share discussion to the students. The question-and-answer session is done to provide more opportunities for the students to share their opinion, ideas, and understanding about the learning materials.

Finally, the use of Moca is to support the students’ finalization of their learning. The students need to open the moca to know the teacher’s explanation about the topic discussed and the task that the students need to complete. Moca is also used to support the maintenance of the students’ task so they can directly know the projects they have to complete. This surely enables the students to measure their own progress on their learning. Moca keeps the students’ track in learning and their works.

In relation to the students’ learning facility, the students mostly used handphone that might be too small for them to read and communicate during the learning process. The students’ eyes have different level of readability in relation to their eyes condition. Commonly, the students will have 30-60 minutes of span for the eyes readiness to read. Supported by the findings on a study measuring the online duration per day, in 144 minutes of 16 hours people are online [17].
The students need to take rest after their first period of digital reading to keep their eyes healthy and ready to study. The eyes focus also depends on their eyes condition. If they read too small words in a quite long time, they will make their eyes irritated. This will influence the students’ learning achievement.

3.3 Access

In relation to the students’ learning access, there are several facts about it. With the sudden changes due to the pandemic, the major challenges faced by the student from underdeveloped areas is the ineffective technology [18]. First, the students have limited access to the open access information due to limited internet connection. The students’ limited access of internet is as a consequence of having economics problem. Many students do not have sufficient internet connection to access information by browsing in Google scholar and other trusted and beneficial websites. To have good internet connection and big data, the students should spend more money to buy the credit since the government and the university do not provide free internet access for the students.

Second, the device used by the students are also limited in terms of the specification. Many of the students are not facilitated with updated smartphones that can help them access the internet and information freely. When they have the credits, they have to face the electricity or the performance of the devices to get access. When the students are in the high motivation to read and to learn, the device might not work properly, they will have their motivation decreased. Therefore, the use of updated and proper smartphone is required to improve the students’ accessibility.

The third is the geographical condition that influences the internet connection. A number of students still have to find good places to connect them with the internet. This deals with the infrastructures of the internet connection that suit the geographical condition. It is clear that if the position of the students’ houses is not well infrastructure, the students cannot access the internet at their house. They have to find good places to enable them connect to the internet. The students should go to other part of their village, to the higher place that enable them collaborate with other students. This will of course break the rules of social distancing.

The fourth, the students’ accessibility on the use of Moca. Actually, there are several problems on the use of Moca. The students cannot directly get involved into the class so they have to find their own classes. This will create another problem for the students if they are not familiar with the Moca and cannot find the correct class, they will enroll themselves in a wrong learning process. Then, Moca is a new system that still needs to be evaluated and revised for its betterment. Sometimes, the system cannot be accessed based on the schedule, the activity cannot be completed on time and the data for the students’ task is not properly saved. Thus, the students and the teacher need to be well communicated about the work in Moca.

3.4 Effectiveness

Based on the students’ feedback, the use of digital learning during the pandemic is not that effective due to several problems faced. This finding is in accordance to a survey conducted by Adhan & Anwar (2020) that the traditional classroom was more effective than the online classroom. First, the internet connection is not stable so the students cannot clearly catch the teacher’s explanation during the zoom meeting. Then, the students also stated that the use of online learning cannot provide more opportunities for the students to communicate directly with the teacher. They feel that online communication cannot give clear explanation about the topic.
discussed since whenever they have problems, they cannot ask for the teacher’s explanation in time. Next, most of the students conduct the process of online learning at their homes which might be less conducive for them to learn. The situation at home is more for taking breaks and gather with the other family members. The activity of other members of the family also interrupts the students’ learning process. If the students get many interruptions during their learning, they will lose their focus and it will also lower their motivation to achieve the learning goals.

The explanation above shares that the students prefer to have face-to-face class instead of online class. The main factor of this is the students’ readiness to have their independent learning. It is clear that the students cannot communicate directly with the teacher about the learning materials. The students also have more opportunities for themselves to communicate with the other members of the classroom when they faced problems. The students realize that the learning situation will stimulate themselves to learn maximally. Learning at busy home will decrease the students’ learning concentration and focus. They expect to have offline class at the campus to enable them learn better. This is actually proven that the students’ preference include independence, creativity, sociability, risk-taking, stimulus, and sensation seeking [19].

Taken from the students’ learning achievement, many of them do not have high learning achievement. The students could not respond to the teacher’s questions well which is different from the classroom learning activity. Then, the students are also slow in receiving the information from the teacher due to the internet connection and also the learning situation. The students’ completion on their task is also unsatisfying since the students’ works submitted in the Moca were not on time. Finally, the students’ score of English tests is also not satisfying. The students’ means score for the English is around 53.5 that does not belong to satisfying score.

From the six aspects, process is mostly highlighted by the students. They are full conscious that their digital learning requires their independency in achieving the learning goals. The social media application, e-learning website and What’s Apps, are also considered by the students as one aspect that influences their learning. The internet access is viewed as one crucial problems of the students’ digital learning since most of the students live in rural areas. Based on the students’ responses on their learning motivation, the students share that they felt unmotivated and less focus on the online learning. Lastly, the learning is less effective for the students as they have more limitation to the internet connection. However, the students realize that they have to be more active to update themselves in order to keep up with the changes given by the lecturers. Therefore, a number of suggestions and implications are discussed under the topic of digital literacy, positivity.

4 Conclusion

The sudden changes in language teaching during the pandemic creates challenges for both the students and the teacher. The process of language teaching should employ the principles of language teaching and considering the students’ perspectives on their online learning. The mastery of technological competence and learning facility and environment are crucial for the success of students’ learning. Stimulating the students to work independently, autonomously and enthusiastically will improve the students’ learning achievement through meaningful and enjoyable learning process. To deal with the online learning process, the students are highly required to train their critical thinking skills, reflective skills, and autonomous learning skills.
References


Development of Reading Comprehension Ability Assessment for Students

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Universitas Ahmad Dahlan, Yogyakarta, Indonesia⁴

Abstract. Reading Skills courses for students in Higher Education, especially in the Indonesian Language Study Program at the University of Muhammadiyah Lampung are not easy to achieve in learning indicators. The measuring instrument used for the assessment is the manual assessment and it is not effective yet. The alternative to seeing the achievement of language learning outcomes is to use the right measuring instrument, namely the assessment instrument (assessment) of reading comprehension. This assessment is developed based on the concept / theory of reading comprehension. The objective of this study is: to develop an assessment instrument to measure students' reading comprehension skills for Indonesian Language Education students. The data collecting method is done through the Borg & Gall development method with five stages, 1) research and information collecting, 2) planning, 3) develop preliminary form of product, 4) preliminary field testing, and 5) final product. This research has limitations, namely the product in the form of an instrument as a new assessment tool until the validity test stage and the research can be developed again to be broader and more perfect.

Keywords: Assessment Development, Reading Comprehension, Student

1 Introduction

Literacy as one of the Government programs is an effort of all parties to make it happen, including in Higher Education. Language competence in the achievement of Indonesian language learning in tertiary institutions is an absolute thing, this competence really supports the provision of students to be able to apply language knowledge correctly and appropriately in the community as a medium or vehicle for appreciating the knowledge that has been obtained. Language in which there is an element of reading by various methods certainly requires accuracy in its assessment.

One of the obstacles in the assessment for reading comprehension is that the instruments are not in accordance with the desired competency attainment. The assessment, according to Mardapi [10], is the efforts to improve the quality of education can be pursued through improving the quality of learning and the quality of the assessment system. Appropriate assessment instruments are...
needed to measure the accuracy of learning in this particular case for reading comprehension.

This study aimed to improve the assessment system related to assessment instruments, considering that assessment is very important in learning. The urgency of this research is to improve the reading comprehension instrument, which so far has been the same as the assessment of reading skills in general. It is hoped that the improvement of the instrument for assessing the ability to read comprehension is expected to be the right measurement tool for all Indonesian Language Education Study Programs in all universities and especially in the Indonesian Language Study Program at the University of Muhammadiyah Lampung.

1.1. Assessment

Assessment is a measure activity related to numbers objectively, according to Allen & Yen [3] defining measurement as assigning numbers in a systematic way to express individual circumstances.

Some assessments are measures for the success of a learning program or learning indicators in a course, then the assessment should be adjusted to the material discussed or in accordance with the standards applied [18]. The importance of assessment instruments that are in accordance with the indicators or concepts makes the scoring system more valid and reliable.

1.2. Language

Language is a spoken symbol [16]. The language component in which there is a series of words in this case is studied in a science called morphology [13], [17]. The relationship between words at the morphological level is part of a broader knowledge, namely syntax. Language acquisition through several stages, namely listening, speaking, reading, and writing [12].

The relationship in the language unity between listening, speaking, reading, and writing is one unit. The relationship between reading and writing is very close, in writing activities, authors use written language and can make the position of the writer as a reader and writer and reader as a writer [8] [9]. Reading as one of the courses certainly has certain points in the achievement of understanding the reading content, not only limited to reading skills that are owned but must be able to make other contributions that support reading comprehension as an optimal activity, this can also be done by using a variety of learning methods [1] [4]. The method used by the lecturer is also very helpful in achieving maximum results regarding reading comprehension.
Furthermore, reading comprehension is a stage in reading or can be called also advanced reading [7]. In the Indonesian Language Education (PBI) study program, reading comprehension is included in the field of reading skills, of course the assessment system does not yet have a special instrument. There are several studies that are relevant to the material or assessment of reading comprehension [14] [15]. Some of the relevant research above, discuss methods or techniques of learning to read and discuss how important assessment is for reading comprehension for learning English. The renewal of the Assessment product is an assessment instrument used for the specific reading skills course of Reading Comprehension Skills.

2 Method

This research is a research development using the R&D method, three stages are used namely the first is the stage of pre-development, the second is stage of development, and the third is the final stage. The three stages use five steps of R&D development. These stages can be seen in Figure 1.

![Fig. 1. Assessment development stage](image)

**First:** Pre-Development; 1. Research and Information Collecting: Conducting preliminary research and collecting data about assessment instruments that already exist and are used in assessing students' reading skills, then a literature review and relevant research studies are conducted; 2. Planning: Making plans based on literature reviews and preliminary research, it is necessary to have an assessment instrument. **Second:** Development Stage; 3. Develop preliminary form of product: Analyze concepts / theories and journal reading comprehension skills, based on this analysis, an assessment instrument design is obtained; 4. Preliminary field testing, at this stage expert and
practitioner validation is held involving three experts as experts. **Third: Final Stage;** 5. Final product; The resulting instrument can be used as an assessment for students in the Indonesian language education study program.

Furthermore, the resulting assessment instrument was tested for validity using Aiken's content validity test. The appraiser (Rater) consists of three experts in the field of Indonesian. Aiken's formula calculates content validity based on the results of expert assessments [2] [11].

\[ V = \frac{\sum s}{n(c-1)} \]  

Where \( s = r - lo; \) \( lo \) = the lowest validity score; \( c \) = the highest validity score; \( r \) = the score given by the assessor. Furthermore, the categories are used as in Table 1.

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<thead>
<tr>
<th>Score</th>
<th>Category</th>
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<tbody>
<tr>
<td>1</td>
<td>Irrelevant</td>
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<td>2</td>
<td>Lack of Relevant</td>
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<td>3</td>
<td>Quite Relevant</td>
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<td>4</td>
<td>Very Relevant</td>
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</table>

The validation index used is: less than 0,4, the validity is low, between 0,4-0,8 the validity is moderate, and if it is more than 0,8, the validity is high [11]. The criteria used by the rater to assess the suitability of indicators and items can be presented in Table 2.

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<th>Number</th>
<th>Criteria</th>
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<td>Theory</td>
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<td>Objectivity</td>
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<td>Systematics</td>
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3 Results and Discussion

Reading comprehension has six indicators based on literature review, as presented in Table 3.
Based on the resulting assessment instrument, there are six item questions with five assessment aspects. The assessment was carried out to see the compatibility of the six question items with the five aspects assessed by the three rater, namely Language, Materials, Construction, Objectivity, and Systematics. The results of the analysis using Aiken's can be seen in Table 4.

**Table 4. Expert Assessment**

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Based on the data presented in Table 4, it is found that all items are valid and are in the very relevant category with the Aiken index greater than 0.8.

4 Conclusion

The assessment developed is very useful for assessing language learning comprehension for Indonesian study program students. The instrument developed consists of six indicators with six items, and its relevance is seen with five criteria. The criteria seen from the suitability of indicators and items are language, material, construction, objectivity, and systematization. Content validation was assessed by three assessors (rater) with very relevant assessment results, shown by index results > 0.8.

References


The Role of Islamic Development and Kemuhummadiyahan in Increasing Employee Values of Muhammadiyah University of Ponorogo

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Abstract. This study aims to investigate the implementation, methods, and roles as one of the scientific reference materials to improve the quality of formation programs of Al-Islam and Kemuhummadiyahan in instilling the values of religiosity for Muhammadiyah University Ponorogo's Employees. This research included the type of qualitative field research with a background of Al-Islam and Kemuhummadiyahan formation for employees at Muhammadiyah University of Ponorogo. The collection of data is done using interviews, observation, and documentation. Data analysis uses descriptive analysis. The results showed that: 1). Implementation of Formation can be improved to foster self-awareness and the importance of following this formation seriously. 2). The method used in this formation is the method of individual and group counseling. The other methods using exemplary, habituation, advice, lecturing, discussion, storytelling, and memorization. 3). Al-Islam and Kemuhummadiyahan's formation gives a significant role in instilling values of employee religiosity.

Keywords: Al-Islam, kemuhummadiyahan, values of religiosity

1 Introduction

Islam is the religion of Allah that was revealed to the Apostles, as Allah's guidance and grace for mankind throughout the ages, which guarantees the welfare of material and spiritual life, worldly and ukhrawi [1]. Islam, namely the Islamic religion brought by the Prophet Muhammad as the Prophet of the end of time, is the teachings revealed by Allah that are contained in the Al-Quran and the authentic Sunnah of the Prophet (maqbul) in the form of commands, prohibitions, and instructions [2]. for the good of human life in this world and the hereafter. Islamic teachings are comprehensive and cannot be separated from one another, covering the fields of aqidah, morality, worship, and mu'amalah duniawiyah.

To create a happy and safe society as mentioned above, everyone, especially Muslims, people who believe in Allah and the following day, are obliged to follow in the footsteps of all the holy prophets, worship Allah and try as hard as possible to gather all strength and with sincere and sincere intentions for Allah solely and only expecting the grace of Allah and His blessing alone. So, one way to make this happen on the 8th Dzulhijjah 1330 Hijriyah or 18 November 1912 Miladiyah, to realize these ideals KHA. Dahlan founded an organization as an "Islamic movement" under the name "Muhammadiyah" with the intent and purpose of
upholding and upholding the Islamic Religion so that the real Islamic community could be realized [3].

Muhammadiyah University of Ponorogo is an educational unit belonging to the Muhammadiyah Association that organizes higher education, in charge of providing education, learning, research, and community service as well as Al-Islam and Kemuhmmadiyahan, always trying to improve the quality of human resources, especially to instill religious values for its employees [4].

The reality in the field shows that in general, employees at the Muhammadiyah University of Ponorogo have low enthusiasm in the application of the values of Al-Islam and Muhammadiyah, including (1) Discipline for attendance at workplaces of employees, especially lecturers and structural officials, (2) Low attendance levels employees at the time of holding Al-Islam and Muhammadiyah development activities (3) Low level of mastery of reading Al-Qur'an (4) Low interest of Muhammadiyah Ponorogo University employees who are actively involved in the management of Muhammadiyah / Aisyiyah at various levels of leadership [4].

The solution to the above problems needs to be made efforts to improve the development of Al-Islam and Muhammadiyah for Muhammadiyah University employees of Ponorogo that are planned, systematic and sustainable with programs to instill religious values for employees, including holding written tests and AIK interviews every time there is a recruitment for a new employee candidate. Organizing recitation activities on Sunday Morning Al-Manar, training in translating the Koran with the tamyiz method, training in tajwid and reading the Koran using the Muri-Q method, kultum after each dzuhur prayer every Thursday and Monday, assistance in reading Al-Quran every day according to the schedule of each work unit, an appeal to read the Qur'an before starting work, obligatory prayers in congregation and duha prayers and so on [2].

The role of AIK Development at Muhammadiyah Ponorogo University is the driving spirit and the main mission of implementing the higher education process [5]. The development of AIK is also a spiritual, moral, intellectual strength and also as an identity for the character of the Muhammadiyah University of Ponorogo academic community, namely, as a Muslim who has good morals, is intelligent, progressive, has a leadership spirit, and cares for personal, community, and national problems for all Muhammadiyah University employees. Ponorogo. AIK coaching for employees if it can be carried out sustainably and evaluating the activities that have been carried out then improving the material, methodology, regulatory management resources, and supporting policies will make it easier to achieve the desired goals [6].

Therefore, a comprehensive evaluation is needed to measure the quality of Al-Islam and Muhammadiyah Development at the Muhammadiyah University of Ponorogo [7]. Is its existence able to provide a positive role to employees or is it still a formality that has not yet touched the objectives of coaching. However, in reality, there are not many Muhammadiyah universities that can implement these lofty ideals. Likewise, what happened at Muhammadiyah University of Ponorogo, which intellectually, could produce its graduates to become professional Muslim scholars in their fields, but in realizing the main mission of Muhammadiyah Higher Education, namely the Development of AIK can be a basis for spiritual or religious and moral strength for the entire academic community [2], has not been going well, so this fact is what encourages the author to know the extent of the role of AIK Development in instilling religious values of Muhammadiyah University of Ponorogo’s employees.
2 Method

This research is qualitative research [8] with the research method used is descriptive qualitative. Descriptive qualitative research is in the form of research with a method or case study approach with data collection techniques: a) Observation. Observation is usually defined as "systematic observation and recording of the symptoms that appear on the research object". The symptoms referred to are matters related to the inculcation of employee religious values. From these observations, the researcher will systematically record the symptoms that appear on the surface, which are related to the implementation of employee development programs. b) In-depth Interview (Deep Interview) Interview is a technique carried out by communicating with data sources through dialogue (question and answer) orally, this interview is carried out to the Daily Advisory Board and the Human Resources Division. The things that were then asked were matters relating to how the process of inculcating the religious value of employees. c) Documentation, this method is used as a means of photographing various events and activities relating to the form of activities, forms of religious studies carried out by the institution [9].

Data analysis was performed during data collection in the field and after all, data was collected, using the Miles Huberman analysis technique [8]. Data analysis takes place simultaneously which is carried out simultaneously with the data collection process with a flow of stages: data collection, data reduction (data display), conclusions or verification (concluding, drawing, and verifying).

3 Results and Discussion

3.1 Coaching background

Muhammadiyah University of Ponorogo as one of the institutions under the Muhammadiyah Association always tries to improve the quality of its Human Resources (HR) to improve the quality and productivity of the institution [10]. This quality improvement is not only by fulfilling welfare needs in the material aspect and physical needs but also by fulfilling spiritual needs. Development of Al-Islam and Kemuhammadiyahan is one of the businesses that have the biggest role in fulfilling needs in this spiritual field. Religion has a dominant role in shaping a person's attitude and behavior. The higher the level of faith and devotion, the better the attitude and behavior.

It is hoped that the religious values that have been implanted in him will give rise to commendable attitudes and behaviors, such as being honest, disciplined, friendly, trustworthy, responsible, and so on. These commendable attitudes and behaviors are very important to improve the quality and work productivity of employees of the Muhammadiyah University of Ponorogo. Based on the results of interviews with Drs. H. Aries Sudarly Yusuf as secretary of the Muhammadiyah University of Ponorogo Daily Development Board (BPH) that to instill the values of religious values for all employees, is expected to seriously participate in the coaching program carried out by Muhammadiyah Ponorogo University [4].

3.2 Implementation of development

The implementation of Al-Islam and Muhammadiyah Development (AIK) for employees (lecturers, employees, and structural officials) is carried out by the Islamic Da'wah Research,
Development and Development Agency (BP3DI) whose coordination is directly controlled by the Chancellor of Muhammadiyah of Ponorogo University. There are several forms of Al-Islam and Kemuhammadiyaha guidance for employees that have been carried out so far, namely: Studies, Learning to Read Al-Qur'an, I'tikaf Ramadan, and Recitation [2].

3.3 Development program

The AIK coaching program for employees so far has not had an orderly and neat program in the form of a curriculum, so that materials that have been presented are often presented again during the next AIK coaching period. Among the structural officials, the studies that have been carried out so far still emphasize materials that are spiritual in nature, and such material is generally only suitable for employees. Meanwhile, there is very little material that is thought-provoking [11]. Meanwhile, the lecturers need more material that is thoughtful in nature and less material that is spiritual in nature.

3.4 Methods of inculcating religious values

The method for instilling religious values for employees of Muhammadiyah University of Ponorogo is specifically for new employees to hold pre-service activities and interviews with Al-Islam and Muhammadiyah commitments every time they renew their contracts, while for old employees’ interviews are held for renewal of work commitments and Al-Islam and Kemuhammadiyah. The next program will establish Muhammadiyah and Aisyiyah branches at Muhammadiyah Ponorogo of University [4].

3.5 Role of formation

To get the desired research results, according to the objectives and interview questions, the researcher took several informants who were considered to be related to the role of Al-Islam and Muhammadiyah development at the Muhammadiyah University of Ponorogo, namely the head of BP3DI, AIK lecturers, non-Al-Islam and Muhammadiyah lecturers [2], and Muhammadiyah University employees Ponorogo towards instilling religious values. So, the most important role, especially the leadership in fostering the Al-Islam and Muhammadiyah programs, is a matter of courage and assertiveness to make coaching policies.

The supporting factor for the success of the role of fostering Al-Islam and Kemuhammadiyahan to instill the religious values of employees is the existence of a well-programmed development planning system and the existence of continuous evaluation of activities. Besides, the existence of role models from the leadership and fellow employees will enable to provide a very broad opportunity to internalize the values of Islamic life which were deliberately built by the University of Muhammadiyah Ponorogo. Second, physical facilities in the form of mosques and libraries that are representative of worship and learning facilities [6]. The third is the Information Technology system that can add to employee information. The fourth is coaching activity coaches who meet the qualifications because they are activists with a background in the teaching or teacher profession, supported by comfortable environmental conditions, without any mental and moral tension of the employees.

The obstacle is the heterogeneity of employees' backgrounds in reading and writing skills of the Qur'an and worship as well as the habits of daily religious life. The solution from the researcher is to build an attitude of employee togetherness in the form of joint activities [1]. The two inhibiting factors in the coaching process are lecturers' busy teaching schedules and the
busyness of each employee who cannot leave. The solution is to set a coaching schedule according to the leeway of each employee. The obstacles in terms of the implementation time of Al-Islam and Muhammadiyah guidance are the lack of implementation time, and the lack of literature related to Islamic and Muhammadiyah Development so that it often causes difficulties in finding and confirming something related to religious matters. The solution, coaches hold a variety of activities that are various, not monotonous, and not too busy to make employees bored by continuing to add time. For the problem of limited literature, it is hoped that the campus can reproduce books related to coaching materials.

4 Conclusion

Development of Al-Islam and Kemammadiyahan plays a significant role in instilling religious values for employees of the Muhammadiyah University of Ponorogo, namely by holding various kinds of religious development activities in the fields of aqidah, worship, and muamalah. The role in the field of aqidah of employees has a straight foundation of belief, namely in the form of faith values (pillars of faith), knowing and acknowledging that Allah SWT is the God who has the right to be worshiped and asked for help and pray only to Allah.

Meanwhile, in worship, employees have been able to perform ablution, obligatory prayers, and sunnah from movement to reading well, then fasting, zakat, qurban, and so on. These employees practice their religious practices according to the instructions of the Qur'an and are exemplified by the Prophet Muhammad SAW in the hadith. While the role in muamalah employees can interact with residents of the environment around the employee's residence well, respect the leadership, love colleagues, protect the environment, obey the applicable employment regulations and employees can carry out their duties and duties properly.

References

The Application of the Farm Accounting Based on Sufficiency Economy Philosophy (SEP) in Order to Achieve Sustainable Development

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Abstract. The study of social and environmental accounting reveals a lot of critical global problems and need to developing an alternative approach to face economic and social development. This study aimed to review the spiritual-socio-cultural-economy values and criticize the application of Farm accounting cost. The concept reference of the study is based on Sufficiency Economy Philosophy paradigm combined with Laku Prihatin paradigm of Javanese culture, the main principles to create Sufficiency Economy Philosophy are Moderation, Reasonableness and Self Immunity. The study method used is critical ethnomethodology with a qualitative approach. The research site is in the Badegan area, Ponorogo Regency. The study results showed that 1) The concept of financing accounting in the Farm accounting does not represent the level of welfare of farmers, the welfare of farmers not oriented to material and (economic) growth but substance equitable dynamic values by a just relationship with God, society and the natural environment, 2) The concept of financing accounting should be in accordance with spiritual-socio-cultural values, by applying the cost of production with a Sufficiency Economy Philosophy and Net Farm Income (NFI) that is in favor of the farmers, 3) The principle of a Sufficiency Economy Philosophy provides good results for society in physical, social and economic aspects.

Keywords: Agricultural Accounting, cost of productions, net farm income, sufficiency economy philosophy

1 Introduction

The capitalist system coming from western countries and have developed in various countries in the world through the dominant ideology of liberalism. The capitalist system gives full freedom to economic actors to be able to play an active role for profit, so that it can lead to trade wars, political wars, technology wars, and biotechnology wars that lead to the Corona Virus Disease 19 Pandemic (COVID-19). The fall of the Ottoman Turkish Empire in 1924, the ideology of capitalism spreads to various countries where the majority of the people are Moslem in the world [1]. The ideology spreads to countries including Indonesia. This is evidenced by the development of accounting science in Indonesia based on the IFAC (International Federation of Accountants), so that the application in the field is always based on materialism (profit and loss). The agricultural industrial sector is regulated in International Accounting Standards (IAS) 41 and PSAK 69, thereby causing changes to the behavior of modern agriculture (from a culture which implies that agriculture is formed based on culture) to agribusiness. So that culture-based
farmers are increasingly marginalized and replaced by multinational companies that are full of capital [2].

This study refers to previous research from Mulawarman [3], namely the cost of production which is reflected in the production input of net farm income is a very important operational part and is one of the determining factors for how much / how little profit is earned, the greater the production costs incurred the higher the cost of production that is formed. Soekartawi [4], which explains the calculation of farmer income, one of them is through Net Farm Income (NFI), NFI is used as a means of construction with other factors that can affect the calculation according to the reality in the field. Amir [5] and Kurniawan [2] through Net Farm Income (NFI / Agricultural Net Profit) and the concept of measurement and recognition of market-based biological assets in IAS 41 (Agriculture), which ideological substance is directly able to indoctrinate farmers into business paradigm agriculture. Farmers are no longer helpless because their roles have shifted to become government political commodities through regulations that have cornered the position of farmers [5]. According to reality, conventional accounting concepts do not represent agricultural accounting. The application of agricultural accounting in Indonesia, especially the Javanese, still mixes social and cultural aspects in practice. The pattern of thinking of the Javanese people is explained, said that natural resource management does not rely on material compliance only, it is necessary to pay attention to the limits where in the tradition of the Indonesian people can utilize and utilize nature, take what is appropriate, return excess, or replace what they have spent as compliance of consumption [6]. The cause of the welfare of agricultural sector workers is very concerning because the people’s economy which is the national economic ideology based on article 33 of the 1945 Constitution is not implemented, ironically the capitalime system thrives in Indonesia.

Based on the description above, it is necessary to develop a new paradigm in accordance with the socio-cultural conditions of the community (especially Javanese farmer workers). A new paradigm is needed to improve the welfare of agricultural entrepreneurs both physically and mentally. The research theoretical framework used is the Sufficiency Economy Philosophy and the teachings of “Laku Prihatin” in Javanese society, Sufficiency Economy Philosophy (SEP) is a new paradigm in economics that is not too familiar yet in Indonesia. The history of Sufficiency Economy Philosophy comes from Thailand and was first initiated by the King Bhumibol Adulyajed and published in a state speech. The Definition of Sufficiency Economy Philosophy [7], [8], [9] said that SEP is a middle way that does not take sides with extreme thoughts, behavior and movements of the economic system. SEP has three main components which are used as principles in SEP, namely moderation, reasonableness, and Self Immunity [7], [8], [9], [10], [11]. This study criticizes the application of agricultural accounting costs and reconstructs the paradigm of accounting concepts in accordance with spiritual-socio-cultural values, by applying the cost of production with a Sufficiency Economy Philosophy and Net Farm Income (NFI) which sided with farmers. The importance of the principle of Sufficiency Economy Philosophy is needed so that Indonesia's human resources can quickly adapt to the times and can utilize existing natural resources more wisely. So that the researcher uses the philosophy of economics as a research paradigm.

2 Method

The research method used is critical ethnomethodology with a qualitative approach. The research design is not to collect data, but as an indication of the problems that occur by
understanding individual behavior in a social environment to solving problems that occur. The problem portrayed is criticizing the application of conventional agricultural accounting costs and reconstructing the paradigm of accounting concepts according to spiritual-socio-cultural values to increase farmer welfare. The research site is in the Badegan area, Ponorogo Regency. The research location was chosen because the area is the one of the main agricultural material producer in Ponorogo Regency. Sources of data used in this study are primary data and secondary data. The Primary data taken directly by researchers and obtained from interviewees through interviews and documentation. Secondary data from books, research journals and published historical reports, as well as other documents related to research. The research structure in this study includes: Portrait of Sufficiency Economy Philosophy Application to Farmers, Agricultural Business Actor’s Problems, Reconstruction of Production Cost with Sufficiency Economy Philosophy, and Reconstruction of the Application of Net Farm Income in favor of Farmers.

3 Results and Discussion

3.1 Social, economic and cultural practices in the life of farmers

The people of Ponorogo are majority Javanese, in carrying out the agricultural businesses, they always adhere to the teaching of religion and culture that they believe. They always behave in controlling their passions, patient, don’t care about personal egos, honest in their actions, and sincere in responding a condition. The mindset and behavior affect their economic view. Besides getting profit, the purpose of farming is to balance the affairs of the world and the hereafter. So that capitalist economic practices are not implemented. Several findings in the field show that when it coming to harvest they will do the obligation of a relationship with God through zakat, it aims to increase gratitude and worship to Allah. Another expression of gratitude is by performing kenduri or better known as selamatan or kenduren (the designation of kenduri for Javanese people). They think that by holding a feast at every major harvest, they can give alms (sharing food) with relatives or neighbors, and also pray that the next harvest will be given a blessing to the bountiful harvest. This is one way to fulfill the inner needs of the farmer, the inner needs can be fulfilled if it is beneficial to others and more importantly how to please others first. Besides prioritizing religious teachings and human relations, farmers also prioritize the environment for sustainable agriculture. Inherited fields from their previous family are always maintained so they are not damaged, and not exploited in order to meet profit targets. This was evidenced by the farmers not fully using chemical fertilizers to keep the soil containing the best nutrients for plants and to increase the quality and quantity of the harvest. According to Dahana [6], which explains the management of natural resources that pays attention to the limits where Indonesian traditional people can explore and utilize nature, take what is needed, return excessive, or replace what they have consumed. The management of natural resources in the context of Sufficiency Economy Philosophy is intended for the common interest, meaning that all people make ends meet of natural resource management wisely because they have been limited by this sufficient value, there is no excessive exploitation of natural resources, and for sustainable interest means that the available natural resources can meet the needs of society at this time and society in the future. This is in accordance with Prawirendro [12], explained that in the Islamic philosophy profit is the result of human work that is blessed by God for the
welfare of human race, the preservation of the social environment, and the preservation of the natural environment.

The agricultural industry sector is regulated on its financial reporting standards specifically in International Accounting Standards (IAS) 41. IAS 41 is an accounting standard to regulate the agricultural industry sector contained in the global financial reporting standards of International Financial Reporting Standards (IFRS). In general, the scope of IAS 41 is to regulate the valuation of biological assets during their growth period until they reach the point of harvest. Biological assets are defined as living plants or animals available for agricultural production purposes. Meanwhile, land is recognized as fixed assets and investment assets, not as biological assets. So that the accounting treatment for land refers to IAS 40 and IAS 16. Biological assets are measured using fair value less estimated costs of sale from the initial recognition of biological assets to the point of harvest, unless fair value cannot be measured reliably at the time of recognition. Fair value at the time of initial measurement of biological assets cannot be valued reliably because prices are determined by the market. In this case, the entity is recommended to measure the biological assets cost less accumulated depreciation and any accumulated impairment losses. Once the fair value can be measured reliably, the biological assets must be valued at fair value less the estimated cost of sale. Changes in fair value less estimated selling costs are reported in the income statement for the period (actualization). When referring to conventional accounting, the costs incurred for operations must be charged into the calculation of the cost of goods manufactured. This regulation does not apply to Javanese farmers. Farmers will distinguish between costs that are private business with costs that are based on socio-cultural values, and are responsive to nature conservation. So that in terms of the concept of goods manufactured accounting cost financing, it is not suitable for application in the field if the calculation pattern of their cost of goods manufactured uses a cost accounting-based accrual approach. The accrual approach will reflect a high cost value because it requires the imposition of items that are considered as an element of sacrifice or expense. This concept is based on [2]. Farmers also have to charge costs that do not appear in real terms as costs in the farmer's calculations, such as depreciation expenses, interest expenses, costs, food expenses for operations, wages for family labor (not standard in determining wages), expenses for rituals (alms earth, feast of the big harvest), zakat, and payment of labor using the harvest.

![Fig. 1. The cost of productions according to the natural character of farmers as Javanese people](image)

If the agricultural business calculates the cost of production on a broader basis (accrual), the farmer's income will be small. As a result, agricultural land is exploited to get a large profit as expected, and will damage the environment. The ultimate goal for the farmers is to increase their gratitude and worship to Allah when they get their sustenance, besides that their social relations with neighbors are also getting better and their relationship with nature is well maintained [5]. Indonesian farmers, especially Javanese, have a culture of Sufficiency Economy Philosophy, according [6] explaining that a Sufficiency Economy is an economic system that is
based on noble values that are developed, maintained, and passed on by a culture. This noble value is the value of 'sufficient' itself, namely the value of being self-sufficient, limiting oneself to what is sufficient, not exaggerating or it can be termed not israf in Arabic which is interpreted as pointing to an attitude that exceeds the limits and is careless in doing something. These facts are in accordance with findings in the field, namely: moderation, guiding farmers' thoughts to be able to live their lives in the middle lane, not the extreme path. One should refrain from having too much fun. This way of life can be realized because of having wisdom (reasonableness) - the accumulation of knowledge and experience, along with analytical skills, self-awareness, foresight, compassion, and empathy. We all must be aware of the consequences of their actions, not only for themselves but for others as well. The third principle is Self-Immunity, which is the ability of farmers to protect themselves against various external challenges and adapt to various unpredictable and uncontrollable circumstances. Doing economic activities is not always oriented on materials, but must be balanced by paying attention to spiritual aspects, natural resources, and social relations between communities. In terms of the character of farmers, they remain in a cultural mindset related to the calculation of the cost of farm production, so that their existence is maintained and protected from the capitalist system.

Government policy regulations and economic conditions are still not in favor of farmers, according to findings in the field there are several problems that occur, namely:

1. Farmers still rely on traditional knowledge, most of which are obtained by farmers from generation to generation so that technology and knowledge are rarely updated. When associated with conventional accounting, it is very ineffective and inefficient. Budget management literacy is very limited.

2. In terms of obtaining farmer's business capital. It is difficult to get the capital, because banks do not like the high risk of providing loans to farmers. Judging from the uncertain yields and the ability to pay is doubtful. This factor is quite difficult for farmers to develop or run their agricultural businesses.

3. Judging from the selling price of agricultural products based on market prices, of course there is interference from middlemen, owners of large capital, and sophisticated technology. This is a practice of developing a capitalist economic system, with large-capital economic actors controlling the market, and farmers being made workers whose welfare is not given much attention. Farmers do not have a big role in determining the selling price of their crops, so farmers always depend on the selling price and the amount of profit from their harvest is always uncertain.

4. In terms of the availability of fertilizers and pesticides to anticipate disease and plant pests, the sales are dominated by production and marketing by private companies, especially multinational companies. This means that the standard setting for the selling price of agricultural inputs is also dominated by companies, so that the mark bcompanies whose prices are so fluctuating.

In accordance with these problems, in order to form net farm income on the side of farmers as an effort to create independent agriculture, the main thing that must be paid attention is the selling price of agricultural commodities. As well as stabilizing prices and supplies of chemical fertilizers and pesticides. The selling price and stability of pesticide fertilizers are the most influencing factors for farmers' income. Some of these problems require government intervention to regulate the selling price and stability of fertilizers. Especially through regional regulations, the government must also be able to fix the marketing pattern so that there is no more distribution mafia playing in it.
Farming is a subsistence job, also knows and applies the concept of net income. However, there is a difference between the concept of net income based on accounting standards and the net farm income applied by farmers. Farmers apply net farm income through spiritual-socio-cultural values. In carrying out his work, he is limited not to become greedy people who destroy nature. When they have to reduce costs, farmers will prioritize aspects of local wisdom such as taking turns to become rewang at harvest time, not always being paid with money but paying with the harvest. This smart initiative based on traditional knowledge is an act of self-protection from the impact of the spread of the capitalist system. So the welfare of farmers is not oriented towards material and (economic) growth but has the substance of dynamic values that are just related to God, society and the natural environment. The mindset of farmers emphasizes the matter of "being well off", farmers will feel enough with a low profit, rather than having to make a big profit, but their natural agricultural and social conditions must be at stake.

3.2 The Urgency of the Application of SEP for Sustainable Development

Sufficiency Economy Philosophy (SEP) acts as one of the unique indicators in achieving sustainable (environmental, economic and social) and cultural development.
Fig. 3. Illustration of the relationship and the role of each component in an economy sufficient to achieve sustainable development

From the research, it is found that the importance of emphasizing the application of the principle of Sufficiency Economy gives good results for society in physical, social and economic aspects. In the social and economic aspects, the principles of using sufficient resources, participating in community development and sufficient consumption lead to better social economic aspects. First, concern for the environment and moderate consumption have an impact on household economic stability. Families that change their lifestyle based on the principle of Sufficiency Economy are able to reduce unnecessary items, and are able to provide economic stability in the household. Second, it shows that families that apply Sufficiency Economy principles have a better time to discuss and plan for household financial management and provide better health and better relationships between families. Third, the principle of a Sufficiency Economy can increase the level of happiness of the community, seen from their perception of satisfaction, family health and better family relationships.

4 Conclusion

The concept of conventional accounting is not suitable for agricultural business actors to apply to Javanese people, especially Ponorogo, because the financial accounting concept in agricultural accounting does not represent the level of farmers' welfare, farmers' welfare is not material-oriented and economic growth, but has a substance dynamic value related to God, society and the natural environment. So that the concept of financing accounting should be in accordance with spiritual-socio-cultural values, by applying the cost of production with a Sufficiency Economy Philosophy and Net Farm Income (NFI) which is in favor of farmers, the
principles that are the main pillars of creating a Sufficiency Economy Philosophy, namely Moderation, Reasonableness, and Self Immunity. The principle of an adequate economy provides good results for society in physical, social and economic aspects.

References

Metaphora Analysis on Journalistic Diversity
(Discourse Study on Jawa Pos Newspaper)

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Abstract. This study aims (1) to explain the form and types of metaphors used in the news discourse of the Jawa Pos newspaper, (2) to explain the similarities between the vehicle and the tenor of metaprobirc speech in the news discourse of the Jawa Pos newspaper. In order to analyze the forms and types of metaphors, the agih method is used, with the basic technique for Direct Elements (BUL) and advanced techniques of changing techniques and techniques of changing the form (paraphrasing). To analyze the comparison between the lexical meaning and the metaphorical meaning of the expressions under study, the equivalent method is used. The results of this study are (a) The forms and types of metaphors in the discourse of the Jawa Pos newspaper news can be grouped into four forms, namely the nominative metaphor, complimentative metaphor, predicative metaphor, and sentence metaphor, (b) Metaphors in the discourse of the Jawa Pos newspaper news can categorized into four types, namely anthropomorphic metaphors, animal metaphors, concrete-abstract relation metaphors (RAK), and synesthetic metaphors, and (c) the similarities between vehicle and tenor; metaphor is created based on the similarity between the reference of something that is compared (tenor) with the reference of something that is used as a comparison (vehicle). Based on the research results, it can be suggested that the use of metaphors in the mass media needs attention, especially for language researchers.

Keywords: Analysis, metaphor, journalism

1 Introduction

In a discourse, a journalist not only conveys the main message through the text, but also figures of speech, expressions, metaphors as ornaments or ingredients of news. The use of certain metaphors is the main clue in understanding the meaning of a text. Certain metaphors are used by journalists strategically as a basis for thinking, justifying reasons for certain opinions or ideas to the public. Journalist’s takes advantage of the potential of language through everyday expressions, proverbs, noble advices, ancient words, even through expressions taken from scriptures to strengthen the main message conveyed.

In order to create the ideal news, journalist’s uses diction and language style so that the message conveyed can be received by readers according to the expected target. Based on the direct meaning or absence of meaning, language styles are divided into two, namely rhetorical language styles and figurative language styles. The rhetorical style of language emphasizes the use of specific expressions to create certain rhetorical effects. The figurative language style or figure of speech emphasizes the continuity of the meaning of the expression. In this case the writer uses an expression which has a different meaning than usual. According to Furniss [4], a
word, phrase, or statement is figurative when it cannot be taken literally. In other words, there are figurative words or phrases that cannot be literally true in any circumstances. Therefore, when a statement cannot be literally true, people will automatically understand it in a figurative sense. On the other hand, Thompson stated that figurative language is a way of saying something other than using the literal meaning of words.

Furthermore, Taylor [14] has classified figurative expressions into three groups. Those are comparison and substitution, Representation by substitution, and contrast by discrepancy and inversion. In the part of comparison and substitution consist of simile, metaphor, allusion, metonymy, analogy, and allegory. Metaphor is an analogy identifying one object with another and ascribing to the first objects more quality than the second [10]. Moreover Wren and Martin said that a metaphor is an implied Simile. It does not like the simile, state one thing is like another or acts as another, but takes that for granted and proceeds as if two things were one. It is made more vivid by transferring to it the name or attributes of some other objects [13].

One of the journalists' efforts to perpetuate the packaging of information to their readers is to use metaphors. In essence, metaphor is a process of enriching or developing the lexicon of a language. This is also seen as a form of language creative power in the application of meaning. Many researches have been done in the field of metaphor analysis. Raharta & Hamsia [11] revealed an analysis of metaphor in Maya Angelou’s “Caged Bird” and “Still I Rise” Poems. Al-Ali [2] revealed the functions and linguistic analysis of metaphor in the Holy Qur’an. Ndraha [9] revealed analysis of metaphor in Westlife’s song lyrics. Then, Monika [8] revealed analysis of metaphor in ‘a family affair’ by Kate Chopin. However, none of them reveal metaphore analysis on Journalistic. Therefore, this research will focus on Metaphora Analysis on Journalistic Diversity (Discourse Study on Jawa Pos Newspaper).

This study aims (1) to describe the forms and types of metaphors used in the news discourse of the Jawa Pos newspaper and (2) to describe the relationship between the lexical meaning and the figurative meaning of metaphorical expressions used in the news discourse of the Jawa Pos newspaper.

2 Method

Research on metaphorical analysis in various journalism, particularly discourse studies in newspapers, is still feasible to conduct. Among the various existing media, only newspapers as the data source for this research. The data required is especially taken from the main news discourse in newspapers in general, namely political, economic, sports, social, criminal and entertainment news. Meanwhile, the type of newspaper referred to is the national published newspaper in Indonesian, namely the Jawa Pos daily newspaper.

In order to analyze the forms and types of metaphors, the agih method is used with the basic technique for Direct Elements (DE) and advanced techniques of changing techniques and techniques of changing the form (paraphrasing). In analyzing the comparison between the lexical meaning and the metaphorical meaning of the expressions under study, the equivalent method is used.
3 Results and Discussion

3.1 Figurative language and metaphor

Waddel [15] states that figurative language is "the fresh, picture-making phrase that says one thing but means something different or something more" an expression that creates a fresh picture, which says something but the meaning is something else. Or something more ‘. From several kinds of figurative language that exist, this research will focus on metaphors. Furthermore, [15] explained that the metaphor is an implied comparison. It is implied because you do not say that something is 'like' or 'as' another thing; you simply say that one thing is something else (A is B).

One form of metaphor is personification. Rice stated; a form of metaphor is personification, a figurative device in which a writer attributes to something inanimate the powers of the living. Personification is generally relies upon verbs. In this connection, Gorys Keraf [6] states that personification is a kind of figurative language that describes inanimate objects or inanimate objects as if they have human characteristics. Personification (recognition) is a special feature of the metaphor in which inanimate objects act and speak like humans.

According to syntactic point of view, the metaphor can be distinguished from the type of lingual unit which is 'metaphorized'. In reality the use of metaphors is mainly shown through the lingual units of verbs and nouns. In this regard, Rice [12] mentions' a metaphor is an implied comparison, usually illustrated in noun structures, in actual practice, however, metaphors occur at least as frequently in verbs and verbal, where they can possess a subtlety and grace. They often lack in their starker noun forms'. Furthermore, Wahab [1] divides metaphors into three, namely nominative metaphors (in the form of nouns, both as subject and object), predictive (which appear in predicate form) and sentences (which are shown in all components of the sentence).

The use of metaphors that are disproportionately linked to the context will be counterproductive. Sometimes people mistakenly assume that by using a lot of figurative language, including metaphors, their writing will be more "expressive" and "lively". Windschuttle states that in Shakespeare's day the use of 'figurative' in everyday speech was common. However, he cautioned that uncontrolled use of metaphorical expressions has the potential to turn a passage into a joke "turning an essay into a joke". He added, 'the best rule to follow is to avoid using them except for special occasions. Used frequently, they appear pretensions; used rarely, they can be just right for those occasions when a striking phrase is really warranted. Therefore, the appearance of metaphors too often will give the impression of being grandiose, but the occasional use will actually be right (target).

3.2 Variety of journalism

Variety of journalistic languages is the variety of languages that are related to or have the characteristics of journalism, especially marked by the appropriate literary quality for popular newspapers and magazines. Journalism is a collection or editing of material about current interests for presentation through the media: newspapers, magazines, news films, radio and television. Gove stated, journalistic, relating to, or having the characteristic of journalism or journalistic, especially marked by literacy qualities appropriate to newspapers and popular magazines journalism, the collection and editing of material of current interest for presentation through the media of newspapers, magazines, newsreels, radio, and television (Gove in [6]. Therefore, journalistic work includes writing that is displayed in both print and electronic media.
Rosihan Anwar explained that the characteristics of journalistic language are short, concise, simple, fluent, clear, straightforward, interesting and standard. What is meant by short, fluent and clear is seen from the speaker. Solid characteristic in terms of content. The nature is simple, straightforward and standard in terms of language.

The appearance of a newspaper news discourse cannot be separated from 'textual rhetoric', which is the way in which a text or discourse is structured using language. Leech [7] suggests four principles in textual rhetoric, namely (1) processability, (2) clarity principles, (3) economic principles, and (4) expressiveness principles.

a. Processability principle

News writers are basically encouraged to present facts in such a way that readers can quickly understand them (immediately). In order to realize this, the systematic presentation is certainly related to how to classify messages, determine the level of the role of messages and sort them with strategic systematic. This presentation structure should be in line with the habitual patterns of each language. English adheres to a syntactic structure with a 'light' syntactic structure pattern (light constituent) preceding the 'heavy' syntactic structure (heavy constituent). However, journalistic discourse in Indonesian is usually the syntactic structure that is important (heavy) precedes the less important (light).

b. Clarity principle

In accordance with the essence of a newspaper news discourse, which is to be present to readers to convey a fact, then news discourse writers must realize this principle in their writing. The trick is to use words that do not create ambiguity in the reader. Thus misunderstanding or misperception by readers will be avoided. This principle requires the use of words that contain literal meanings rather than metaphorical meanings.

c. Economic principle

Economic principles emphasizes the need to display short news texts in a limited space, without having to reduce the integrity of the content that needs to be informed. The text is short but content-dense will help readers save time and effort in understanding it. In order to realize this principle, various journalistic discourse writers usually reduce several syntactic constituents with abbreviations (abbreviations or acronyms), penetration (ellipsis), and pronunciation.

d. Expressiveness principle

This principle can be called the principle of iconicity related to the ordering pattern of aspects of the message. The author has strategic reasons which aspects are put forward first and which are put forward later. For example, facts in the form of causal relationships, chronology, genealogy and so on. Newspaper news discourse needs to consider this principle in an effort together with the other principles above so that the content of the news is quickly absorbed by readers.

3.3 Form of metaphor speeches

In order to analyze the form of metaphorical speech, this study cites the opinion expressed by Abdul Wahab [1] which classifies metaphors from a syntactic perspective. In this classification, metaphors are classified into (1) nominative metaphors, (2) predicative metaphors, and (3) sentence metaphors. The nominative metaphor can be divided into two: at the subject position it is called a nominative metaphor or nominative and at the object position it is called a complimentative metaphor.

However for the sake of practicality in this study, the mention of these metaphorical forms is changed to (1) a nominative metaphor, namely a kias symbol that appears only in the subject of a sentence, (2) a complimentative metaphor, namely a symbol of clas that exists only in
objects or complements, (3) predicative metaphors, namely the symbols of kias that exist only in predicates, and (4) metaphors of sentences, namely symbols of clas that are found not only in the position of the subject, predicate or complement separately, but at least in the subject and predicate as a minimum requirement for the formation of a sentence.

Based on the data collected from the discourse of the Jawa Pos newspaper, the four metaphors can be described as follows.

a. Nominative Metaphor

Speeches that contain metaphorical meanings are categorized as nouns, especially those that act as the subject of sentences. The position of the subject is always filled with nouns, so this metaphor is a subjective or nominative metaphor only. The following examples contain nominative metaphorical speech.

He did not explain when and how the cursed object was placed. In the sentence data (1) there is a nominative metaphor for the cursed object as the subject. The word cursed usually describes things related to human evil, for example in sentence (1a) cursed is a child who dares to his parents. However, in sentence (1) the property is transferred to objects. The cursed object reference referred to here is a bomb, which has the likeness of a bad person, which is always harming others.

b. Complimentative Metaphor

In complimentative metaphors, speech which contains metaphorical meaning is also categorized as nouns, but does not function as a subject. The metaphor of this form can be seen in the following sentence data. The New Year in Hong Kong was marked by demonstrations of thousands of citizens demanding the full implementation of democratic life.

Sentence (2) contains complementary metaphorical speech, namely democratic life, which takes advantage of the similarity of life in plants, animals or humans to 'life' in democracy. Democracy is a system of government that is administered by the people through their representatives or is called people's government. Practically, this system is implemented differently from one country and another. The level of democratization of society cannot be separated from the understanding, situation and interests of the individual society itself. Democracy has had a long history, from its inception, development, acceptance and opposition by the people, extinction to its quite diverse implementation today. All this is same with the life processes of living things in general, which are very varied and there are always developments or changes from time to time.

c. Predicative Metaphor

In the predicative metaphor, words that have a kias symbol are in the predicate position, and other sentence components have denotative meaning, as in the following sentence data. There were no prominent criminal actions that tarnished order and security both before and after the turn of the year.

The predictive metaphor in sentence (3) is tarnishing. The word tarnish means to make something dirty with stain, that is, a kind of spot that comes from a liquid. In the lexical sense, tarnish is used with a concrete object, for example in the sentence 'The child stains his friend's clothes with ink'. Speakers in sentence (3) juxtapose the word tarnish with an abstract object, namely "order and security". So he juxtaposes the abstract "order and security" with concrete objects such as clothes, tables, floors and so on.

d. Sentence Metaphor

In sentence metaphors, all sentence components contain symbols of kias. The author expresses his metaphorical speech not limited to the subject, predicate or complement, but to all of these components. Metaphors of this type can be seen in the following data examples. We have tragedies these days, but what happened in Iran is tens of times bigger. Sentence (4) We
have been hit by tragedies these days; the coordinating minister told journalists after dispatching the medical aid team to Iran. Our subject is not limited to referring to speakers and speech partners (journalists), but to a broader reference, namely the Indonesian people. He intended that despite the condition of concern in our own country, which has experienced various natural disasters, the Indonesian government still sends humanitarian aid. The word overwritten literally means “to be crushed”, and is usually followed by a concrete object that is heavy and burdensome (the subject). Followed by the abstract noun disaster, overwritten becomes a metaphorical meaning.

3.4 Types of metaphorical speech

The classification of metaphorical speech types is based on the opinion of Stephen Ullmann (1972). According to his reference category, Ullmann divides metaphors into four, namely anthropomorphic metaphors, animal metaphors, abstract-concrete relationship metaphors and synesthetic metaphors. This grouping is applied to metaphorical speech quoted from the news discourse of the Jawa Pos newspaper, as described below.

a. Anthropomorphic Metaphors

In anthropomorphic metaphors, there are word relations that should be used specifically for human features, but are associated with inanimate objects. This type of metaphor utilizes humans or members of the human body as a means of comparison, both as tenors (something to be compared) and as a vehicle (means of comparison). Metaphors like this can be seen in the following data examples.

(5) … we can reflect on our lives, how far have we gone, have we met our target. Sentence (5) is a suggestion indicating that he has gone too far. I don't agree (describing the direction). In line with this example, the word stepping in sentence (5) above also has a metaphorical meaning which refers to an action, and the word distant means the quantity of the result of the action. So sentence (5) can be paraphrased like (5b) … we can reflect on our lives again, how much we have done something, has everything been in accordance with our target Animal Metaphors.

Animal metaphors use the animal world as a source of comparative imagination. The metaphor of the animal is applied as a vehicle and tenor for humans and non-humans. In the first type, humans are compared to various types of animals such as dogs, cats, pigs, donkeys, geese, lions, wolves, and so on. In the discourse of the Jawa Pos newspaper, this type of metaphor can be seen in the following data examples.

(6) Based on a report at the Solo Police Headquarters on Thursday (1/1), the victim admitted that he did not forget to lock the handlebar. It turned out that in vain, the thief still stole the victim's motorcycle.

The metaphor in sentence (6) is the metaphor of an animal, which is usually carried out by animals, namely carrying something with their mouths. This expression can also contain the value of success achieved by hard effort. From sentence (6) it can be concluded that a thief can steal a motorcycle after with great effort he has succeeded in removing the lock on the motorcycle handlebar without anyone knowing it to be stolen.

b. Abstract-Concrete Relationship Metaphors (ACR Metaphor)

In this type of metaphor, Ullman provides examples of expressions that have abstract object references used to express concrete object references, or vice versa. In this type of metaphor, there are many abstract objects that are used as vehicles which are then concretized in their metaphorical meaning. Examples of this type of metaphor are often found in the discourse of the Jawa Pos newspaper as quoted in the following sentences.
"PLN is still trying to generate operating profit coupled with efficiency in all fields," he said. Sentence (7) contains the ACRM metaphor for making a profit. Verb printing is usually followed by a concrete object, such as 'printing money, printing books, and printing photos'. In this sentence the speaker equates abstract profit with concrete printed materials. The phrase making profit means 'making a profit'.

Synesthetic metaphor is a transfer of association, that is, from perceptions that actually match one of the senses is transferred to the other senses. Expressions can be created by transferring stimuli from one sense organ to another, for example from the sense of hearing to the sense of sight, from the sense of touch to the sense of hearing, and so on. Metaphors of this type are often found in the discourse of the Jawa Pos newspaper, as quoted in the following example.

Along the path, Wynne received a warm welcome from the public. In data (8) there is a synesthetic metaphor, namely a warm welcome. The sentence above is quoted from a sports report about the visit of Wynne Prakusya and Angelique Widjaya to Solo, which received a warm welcome from their fans by traveling around the city. The excitement can be lived through the sense of sight, but in this sentence the speaker chooses warm words that can only be felt by the skin. In this case there is a diversion of responses from the sense of sight to the senses of taste (skin).

3.5 The similarities between rides and tenors

In the metaphor, the speaker makes use of the similarities between rides and tenors. Ullmann states that there are two kinds of similarities between ride and tenor that lead to metaphors, namely objective similarities and emotive similarities. Objective similarity is the similarity of two entities in terms of form, while emotive similarity is related to feelings.

Metaphorical speech data on the news discourse of the Jawa Pos newspaper have been divided into nine categories. In describing the similarity relationship the data were divided into nine groups, based on the category of human perceptual space in creating metaphors, which was introduced by Michael C. Haley (in Abdul Wahab [1]). This classification is sorted from the category of perceptual space closest to humans as speakers of language, namely the Human category to the furthest, namely the Being (state) category. The complete sequence of the nine categories can be seen in the table 1.

<table>
<thead>
<tr>
<th>No</th>
<th>Category</th>
<th>Examples of Nouns</th>
<th>Prediction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Human</td>
<td>Human</td>
<td>Think</td>
</tr>
<tr>
<td>2</td>
<td>Animate</td>
<td>Animals</td>
<td>Walk, run</td>
</tr>
<tr>
<td>3</td>
<td>Living</td>
<td>Plant</td>
<td>Grow</td>
</tr>
<tr>
<td>4</td>
<td>Object</td>
<td>All Minerals</td>
<td>Can break</td>
</tr>
<tr>
<td>5</td>
<td>Terrestrial</td>
<td>Mountain, river, oceans</td>
<td>Spread out</td>
</tr>
<tr>
<td>6</td>
<td>Substance</td>
<td>A kind of gas</td>
<td>Inert</td>
</tr>
<tr>
<td>7</td>
<td>Energy</td>
<td>Light, wind, fire</td>
<td>Move</td>
</tr>
<tr>
<td>8</td>
<td>Cosmos</td>
<td>Sun, earth, moon</td>
<td>Need space</td>
</tr>
<tr>
<td>9</td>
<td>Being</td>
<td>Truth, love</td>
<td>Exist</td>
</tr>
</tbody>
</table>

This classification of data according to the category of perceptual space is at the same time directed at finding the peculiarities of metaphorical speech, as it perceived from the human
perception space in creating metaphors. In tables 2 to 9 above, the similar components of the vehicle (column 3) and the meaning of tenor (column 4) are in bold. These components become the common components of the vehicle and tenor, which are definitively stated in column 5.

4 Conclusion

Based on the description, it can be concluded as follows: (1) The forms and types of metaphors in the discourse of the Jawa Pos newspaper can be divided into four forms, namely nominative metaphors, complimentative metaphors, predicative metaphors, and sentence metaphors. (2) Metaphors in the news discourse of the Jawa Pos newspaper can be categorized into four types, namely anthropomorphic metaphors, animal metaphors, abstract-concrete relation metaphors (ACRM), and synesthetic metaphors. (3) The similarity between vehicle and tenor; metaphor is created based on the similarity between the reference of something that is compared (tenor) with the reference of something that is used as a comparison (vehicle). The relationship between the vehicle and the metaphorical tenor in the news discourse of the Jawa Pos newspaper can be divided into objective (form) similarities and emotive (perceptual / cultural) similarities.

The suggestions and recommendations of this study are (1) the use of metaphors in the mass media needs attention, especially for language researchers. In addition, it is necessary to prove the benefits of metaphorical speech for conveying ideas, it is also necessary to examine its weaknesses, both from a communication and linguistic point of view, (2) the results of this study are expected to add to the research repertoire of existing metaphors.

References

Javanese Speech Politeness in Expressive Speech Act of Women Leader Utterance in Ponorogo Regency

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Abstract. This study revealed Javanese speech politeness in expressive speech act of women leader utterance in Ponorogo. Javanese speech politeness holds important role in the realization of Javanese speech act. There are three levels of Javanese speech politeness in this research that is very polite (KI), polite (KM), and impolite (Ng). This research used pragmatic qualitative approach, this study examined women leader in 8 urban and rural area in Ponorogo. The result showed that expressive speech act consists of thanking 49%, greeting 27%, and apologizing 24%. The Javanese speech politeness in expressive speech act of women leader found in three language situations that is service, event, and meeting language situation. Three of kinds expressive speech acts mostly found in event language situation. Both in apologizing and greeting there is no Javanese speech politeness of expressive act in service language situation. Very polite and polite are high and impolite only found one in service language situation of thanking. The Javanese speech politeness influenced the use of expressive speech act in accordance with context or language situation. Suggestions are made to compare or contrast with utterance in any field of Javanese speech politeness.

Keywords: Javanese speech politeness, expressive speech act

1 Introduction

To have command of something in mind, grasp what is said, and produce a signal with an intended semantic interpretation, language associates sound and meaning in a specific way [4]. On the other hand, language is a learned vocal system for conveying meaning based on human life experiences. People use language for a variety of reasons, including expressing their thoughts and feelings, conveying claims and arguments, and requesting information. Meaning is established not by the formal qualities of words and constructions, but by how utterances are used and how they connect to the context in which they are produced, according to this theory [28].

On the other hand, language serves a social role by allowing people to connect. People appear to find it impossible to communicate with others in their daily conversation without language. Therefore, speakers should be able to choose acceptable conversation methods in order to keep the conversation going. Cultural conventions, which are founded on a community's values, frequently influence politeness methods. On the other hand, every community has its own normative notion of politeness, which is not the same for all interlocutors, settings, or cultures. For example, in Javanese culture [7].

Furthermore, according to Leech [13], the study of meaning in connection to speech situations or language usage is known as pragmatics. Pragmatics is a discipline with the ability
to investigate social concerns. It's a research project that spans linguistics and other fields [1]. Furthermore, pragmatics is a field of linguistics that investigates the structure of language from the outside, that is, how the language unit is utilized in communication, and thus it is a study of language that encompasses macro linguistics [9]. Furthermore, according to Cutting [5], pragmatics takes a socio-cultural approach to language usage, exploring how the social distance between speakers influences how principles of social behavior are represented. It refers to the unspoken rules of speech that speakers adhere to in order to collaborate and be socially acceptable to one another. It may be stated that pragmatics is the study of meaning and linguistic units used in communication, and how they connect to the context, such as the age, status, position, relationship, social limitations, and gender of the addressee in Javanese.

Meanwhile, politeness is a pragmatic phenomenon. Politeness operates in the use of language in real life [1]. Based on Cutting [5], politeness is defined by the function and intended social meaning of words, not by their appearance. Then, according to Watts [30], politeness is something we must learn and be socialized into, and no generation has been short of teachers and handbooks on etiquette and “proper behavior” to assist us in developing polite abilities. Brown & Levinson [3] states that politeness' primary function is to prevent potential conflict between interacting people. Furthermore, politeness is expressed in different ways and has diverse meanings depending on the culture [7].

Javanese politeness is influenced by the existence of culture. It cannot be separated from the concept of Javanese culture. Tata krama, andhap-ashor, and tanggap ing sasmita are the three. It refers to a person's speaking style, lowering oneself while exalting others, and the ability to decipher concealed meaning. Tata krama, as stated in Pragmatic Tata, is the organization of Bahasa or speech levels [27]. Besides, In Javanese it is known as unggah unggah where people should know the context and situation and to whom they speak [16].

According to Poedjosodarmo [20] and Errington [6], Ngoko (Ng) is the lowest level of speech, Krama Madya (KM) is the intermediate level, and Krama Inggil (KI) is the highest level. Each level represents a different level of civility. Ng is the rudest, whereas KI is the nicest. It can be described in word ‘you’.

- Kowe (Ng)
- Sampeyan (KM)
- Panjenengan (KI)

Some non-linguistic criteria, such as social standing, age, and distance from the subject, influence the choice of these levels [26]. Meanwhile, Brown & Levinson [3] identify social distance, relative authority, and the weight of imposition of the utterance as elements that influence the usage of politeness. Politeness tactics are linked to the degree of explicitness and directness of speech actions, as well as the verb used in the speech act, all of which influence the participants' social distance and relative power [18].

Furthermore, in conversation people not only say something, but also, they do something with their word [2]. In conveying the meaning and purpose the speaker should describe certain maxim of conversation in order to cooperate and be socially acceptable to each other. The act done when say something means speech act. Speech act as a pragmatic phenomenon as well. The term of speech act is pioneered by the term of illocutionary force, what is done in uttering the words, the function of the words, the specific purpose that the speakers have in mind [5]. Specifically, Searle [24] classify speech act into five that is representative, commissive, directive, expressive, and declarative. This paper will be focusing on expressive speech act.

People, being social beings, require communication with others, exchanging ideas, expressing feelings and emotions, and engagement to meet their requirements. The speaker's utterances are actions or behaviors that may include words that communicate their feelings [8].
According to Mufiah and Rahman [15], expressive acts express the speaker's feelings, including psychological states or assertions of pleasure, pain, likes, dislikes, joy, or sorrow. Furthermore, expressive speech acts communicate the speaker's feelings about the current state of affairs in a sincere manner and the social interaction between the speaker and the listener [23]. Then there's the category of expressive speech acts, which includes several diverse subcategories that have gotten little attention thus far [22]. If you're looking for a unique way to express yourself.

According to Searle [24], expressiveness can express a psychological state specified in the sincerity condition about a situation specified in the propositional content. The current paradigm of Thank, congratulate, apologize, condole, deplore, and welcome are examples of expressive verbs. Express, according to Cutting [5], are acts in which the words express the speaker's feelings, such as "apologizing," "praising," "congratulating," "deploring," and "regretting." Meanwhile, according to Kreidler [11], an expressive utterance arises from the current outcome of those activities or failures. As a result, expressive statements are retrospective and involve the speaker. Acknowledge, admit, confess, deny, and apologize are the most prevalent expressive verbs. According to Lanigan [12], the definition of expressive is to express the psychological state described in the sincerity condition concerning a situation specified in the propositional content. Thanks, congratulations, apologies, condolences, welcomes, greets, and applause are the paradigms of expressive.


Furthermore, certain studies on Javanese politeness, such as Sukarno [26] show that the politeness of Javanese reflects Javanese cultural concepts. Sukarno [27] highlights politeness tactics used by Javanese people while reacting to compliments. Then, according to Nuryantiningiwas & Pandanwangi [19], politeness and impoliteness in Javanese speech levels are shown. However, none of them focused on the politeness strategy in expressive communication in Javanese. This research specifically analyzes Javanese speech politeness strategy in expressive speech act of women leader utterance in Ponorogo Regency.

2 Method

Theoretically, this research uses a pragmatic approach, while methodology utilizes ethnography. Ethnographic research aims to describe cultural situations that are identified through conversation in certain events. Ethnography is a verbal description of the cultural situation that is learned or identified through the type of conversation that occurs. All cultural meanings created with these symbols are expressed directly in language. This research that
studies about Javanese speech politeness in the realization of directive speech in which have their own implicature in certain language situation or context. Therefore, in order to capture the language in use or pragmatic, researcher needs detailed and in-depth description of data to reveal various uniqueness that can be scientifically accounted for (Miles and Huberman, 1994: 6-7). That is way, the type of research uses qualitative, because this research describes according to the purpose of the research.

The research data is in the form of utterances from women leaders in Ponorogo both rural area and urban area in social interactions collected by observation and interview techniques to informants. Data on women leader language collection amounts to 8 areas. Then, observation is a way to collect data by recording to the conversation of women leader used by Javanese women in Indonesia. In-depth interviews with informants are flexible, open, tightly structured, not in a formal setting, and carried out repeatedly. In ethnography, according to Spradley, this activity is called friendship conversation. In-depth interviews are methods of gathering information for research purposes by asking and answering questions face-to-face between interviewers and informants, with or without the use of interview guidelines, in situations where they have a long social life.

Data analysis refers to the Spradley model of analysis, which alludes to domain analysis, taxonomy, componential, and cultural themes. Domains refer to utterances used by women leader that focused on participants based on three language situations, they are meeting, service and event. From there, the linguistic features of utterances used by women leader become obvious. Taxonomy is data analysis based on groupings of categories of knowledge relevant to the theory. Component analysis aims to combine domain analysis with taxonomy into one part, the results which are subsequently interpreted by the researchers.

3 Results and Discussions

Woman leader in Ponorogo used three types of expressive speech act those are apologizing, thanking, and greeting show in Figure 1. Women leader utterances were divided into three language situation those are service language situation, event language situation, and meeting language situation. Each of them was collected from women leader utterances both in urban area and rural area. Meanwhile, there are three kinds of Javanese Politeness which the researcher used in this research. Those are very polite (Krama Inggil), Polite (Krama Madya), and Impolite (Ngoko).
Fig. 1. Expressive speech act

Based on Figure 1, found that expressive speech acts uttered by women leader consisted of thanking 49%, greeting 27%, and apologizing 24%. The most dominant is thanking and the least is apologizing. Those results were found from 94 expressive speech acts which divided: 23 of apologizing, 25 of greeting, and 46 of thanking. All of them were collected from women leader utterances in three language situations that is service, event, and meeting.

Thanking is a statement of gratitude from one person to another for anything that benefits them. Then there's apologizing, which is an expression of regret for a previous mistake. Greeting is an expression of delight to be a person on the occasion of good fortune expressed in the form of welcoming. According to Royanti [23], Thanking is an expressive act paradigm that was regarded to be one of global interpersonal communication to convey gratitude, appreciation, good faith, and so on. Thanking has a social role that entails acknowledging that one has benefited from the activities of another person. Apologize is a type of expressive speech act in which the speaker expresses sorrow or apology for something. The social function of apologizing is a value that is more important than ego in a relationship. Welcoming is a politeness act in which the speaker greets the listener in a nice or polite manner. It is a pleasure to be a person on the occasion of good fortune to exhibit empathic delight (an event). The friendly response of approving the other's participation to a place or event with enthusiasm joy is the social function of welcoming. By expressing delight at someone's presence we are attempting to make him or her feel at ease, or even to convey that his or her visit is seen as an honor.

Apologizing, on the other hand, is defined by Mustofa et al. [17] as saying sorry for someone. It's usually done after you've done something that has produced a problem. When meeting someone, a greeting is something you say. Thanking, on the other hand, is a form of expressive speaking act. When a speaker expresses his gratitude towards someone, this phrase is used. Furthermore, classification of Javanese speech politeness in three language situations of each expressive speech acts are as follow Figure 2.
Firstly, Javanese speech politeness in apologizing expressive speech act. Based on Figure 2, found that in service language situation, there is no Javanese speech politeness. Then, in event is excessively found rather than in meeting. Very polite found mostly in event language situation. Similarly, polite also mostly found in event language situation. Then, there is no impolite both in event and meeting language situations. Therefore, we can conclude that Javanese speech politeness of apologizing expressive speech acts are not found in service language situation and dominantly found in event language situation show on Figure 3. Then, impolite is not found both in event and meeting language situations.

Secondly, Javanese speech politeness in greeting expressive speech act. Based on Figure 3, the same result with apologizing, there is no Javanese speech politeness in service language situation. Then, the dominant Javanese speech politeness found in event language situation, and the least in meeting language situation. Therefore, we can conclude that Javanese speech politeness in greeting has the same result with apologizing. However, the difference with the previous kind of expressive speech act is that in Javanese speech politeness of greeting, in the
dominant language situation, polite is higher than very polite. It means that polite is the highest among others. Javanese speech politeness in thanking expressive speech act show in Figure 4.

![Fig. 4. Javanese Speech Politeness in Thanking Expressive Speech Act](image)

Thirdly, Javanese speech politeness in thanking expressive speech act. Thanking is the most dominant among others expressive speech acts. According to the Figure 4, the most dominant Javanese speech politeness in thanking are found in event language situation. Polite is the highest among others. Then, very polite is found highest in event language situation. Impolite only found one in service language situation. Therefore, we can conclude that in thanking, the most dominant Javanese speech politeness in event language situation. Polite is the highest among others. Very polite mostly found in event language situation, and impolite only found one in service language situation, and not found in other language situation.

Furthermore, researcher would compare the current findings with the previous findings. We can conclude from three of that diagrams that apologizing, greeting, and thanking expressive speech act uttered by women leader were influenced by language situation that is service, event, and meeting. This in line with Rohali [21] revealed that politeness is a way of communicating using both language and non-language aspects in accordance with the context and situation of speech. It means factor that influence the levels of Javanese speech politeness is language situation. Meanwhile, non-linguistic criteria such as social standing, age, and distance from the topic influenced the choosing of these levels [26]. Meanwhile, Brown and Levinson [3] identified social distance, relative authority, and the weight of imposition of the utterance as elements that influence the usage of politeness. Furthermore, linguistic and non-linguistic aspects were present in the speakers' utterances in this investigation. The linguistic aspects are the shape and function of the speech, whereas the non-linguistic elements are the utterance strategy, implicature, and context of the utterance [14]. This statement supports the research result, women leader expressive speech act influences the implicature and influenced by context.

In this research, Javanese speech politeness are found in greeting expressive speech acts. In line with Junaidi [10] that asserts that the nature of expression, particularly greeting as one subcategory of acknowledgment, is utilized by speakers to show joy in meeting the audience.
and Then, the most dominant expressive speech act found in this research is thanking expressive speech act. However, Seviyani & Pujiati [25] found that the function of speech expressed a lot is the function of apologizing (to express guilt). In this research, women leader used Javanese speech politeness of thanking a lot in event language situation in order to get face from the audience following language situation that is the formal situation. Supported with Tauchid and Rukmini [29] statement, Expressive speech activities such as complimenting, thanking, and boasting were most likely to elicit a high number of compliments from the audience.

Furthermore, according to Royanti [23], welcoming is a politeness gesture in which the speaker greets the listener nicely or kindly. It is a pleasure to be a person on the occasion of good fortune to exhibit empathic delight (an event). In line with this research result that in greeting expressive speech act, welcoming is mostly used. Then, both very polite and polite are high in event language situation.

In Javanese linguistic etiquette, discourse is deemed courteous if it is suitable and spoken at the proper level. Furthermore, a polite speech act is a speech delivered by the speaker to show respect for the listener [19]. In line with the result of this research, women leaders express thanking, apologizing, and greeting mostly found in event language situation in which formal situation. Very polite and polite are highly found. Then, impolite only found one in service language situation of thanking expressive speech act. It means, impolite is least in women leader Javanese speech politeness of expressive speech act.

4 Conclusion

Having done the analysis and discussion, it comes to the conclusion that there are three levels of Javanese speech politeness in women leader expressive speech act that is very polite (KI), polite (KM) and impolite (Ng). Thanking expressive speech act dominantly found that is 49 %, 27 % of greeting, and 24 % of apologizing. Javanese speech politeness found dominantly in event language situation in three kinds of expressive speech acts. Then, very polite and polite are high and impolite only found one in service language situation of thanking. Both in apologizing and greeting, there is no Javanese speech politeness of expressive speech acts in service language situation. The Javanese speech politeness influence the use of expressive speech act in accordance with context or language situation.

References


Assessment of Literacy and Numeracy of Indonesian Students Using the Integrated Science-based Science Literacy Test

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Abstract. People’s high literacy and numeracy levels are significantly influenced by the development of a nation. This study aims at developing the assessment instruments on Senior High School science program students’ literacy and numeracy ability based on the integrated sciences. The literacy and numeracy indicators used were some indicators of the scientific and mathematics literacy achievements developed by PISA 2015. The literacy and numeracy test instruments were in the form of testlet consisting of 12 popular science readings containing 20 items measuring the literacy and 16 items measuring the numeracy. The instruments were tested to 310 XII grade students of SMAN 2 and SMAN 3 Tegal City. The test validity was examined using the Rasch model approach. The Senior High School science program students’ literacy and numeracy test instruments have met the validity aspects both related to the material and psychometric aspects. The construct validity aspects with the Rasch model approach showed that the Senior High School science program students’ literacy and numeracy test instruments were valid seen from the difficulty level and item appropriateness with the model. The literacy achievement of the XII Grade students of SMAN 2 and SMAN 3 Tegal City was 57.45 % while their numeracy achievement was 43.18 %.

Keywords: Assessment, literacy, numeracy, integrated mathematics and natural sciences

1 Introduction

People’s high literacy and numeracy levels are significantly influenced by the development of a nation. People’s scientific literacy positively influences the economic, democracy, cultural, individual development quality [1]-[3]. The future of a nation depends on its people with high scientific literacy levels to participate in various development fields as the society members possessing the information as well as the skillful scientific workforces who are ready to face the problematic challenges either in the local, national and global levels [4]. Therefore learning in schools must have an impact on improving students’ literacy and numeracy skills. In order to find out the increase in these two aspects, it is necessary to develop an assessment model.

To achieve those literacy and numeracy achievements, the Republic of Indonesia Minister of Education and Culture, Nadiem Makarim starting in 2021 will change the National Examination with the minimum competency assessment and character survey. Nadiem has explained that what is meant by the minimum competency assessment refers to two elements: literacy and numeracy. The literacy meant here is not only related to the ability to but also the ability to analyze a text, ability to understand a concept behind the text. Furthermore, Nadiem
has also explained that numeracy is the ability to analyze numbers. Thus, the minimum competency assessment that will be performed is not based on the learning subjects but more on the mastery of contents or materials [5]. From those explanations, it can be concluded that the minimum competency assessment is not based on the basic competencies of each material given to the students, but based on the literacy and numeracy ability which are highly required in the working world [6],[7].

The scientific literacy achievement indicators developed by PISA (Programme for International Science Student Assessment) cover the competencies in: (1) scientifically explaining the phenomena, (2) scientifically interpreting the data and evidence, and (3) evaluating and designing the scientific investigations. Meanwhile, the mathematics literacy is defined as an individual ability to formulate, utilize, and interpret mathematics in various contexts including mathematical reasoning and mathematical concept utilization, procedure, fact, instrument to describe, explain, and predict a phenomenon [8]. Numeracy is the ability to access, utilize, interpret, communicate the mathematical information and ideas, to involve in the mathematical implementation from various life situations [9], [10]. Thus, there will be no differences between the definition of mathematics literacy and numeracy.

Due to the global competency demands, and the policy made by the Republic of Indonesia Minister of Education and Culture, it is necessary to arrange test instruments which have the ability to measure the literacy and numeracy aspects at all school levels. This study aims at developing the assessment instruments on the Senior High School science program Students’ literacy and numeracy levels based on the integrated sciences covering (1) test construction, (2) test validity examination and (3) test result analysis. This study was a piloting project conducted at the Senior High Schools, especially for the Mathematics and Natural Sciences Program in Tegal City, Central Java, Indonesia. The use of Integrated Sciences Theme was selected based on the research result shown by the integrated Mathematics and Natural Sciences learning had a higher influence on the students’ scientific literacy improvement [11], [12].

2 Method

The literacy and numeracy indicators used are some scientific and mathematics indicators developed by PISA 2015 as presented in Table 1.

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Indicator used</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Literacy</strong></td>
<td>Recalling and implementing the appropriate scientific knowledge.</td>
</tr>
<tr>
<td></td>
<td>Identifying, utilizing, and ability to create an explanation model.</td>
</tr>
<tr>
<td></td>
<td>Transforming data from one representation to the other representation.</td>
</tr>
<tr>
<td></td>
<td>Properly analyzing and interpreting data as well as drawing conclusion.</td>
</tr>
<tr>
<td></td>
<td>Identifying assumptions, evidence, and reasons in the texts related to science.</td>
</tr>
<tr>
<td><strong>Numeracy</strong></td>
<td>Implementing mathematics to create a generalization.</td>
</tr>
<tr>
<td></td>
<td>Ability to access, utilize, interpret, and communicate the mathematical information in various contexts.</td>
</tr>
</tbody>
</table>

The test development stages for the Senior High School science program students’ literacy and numeracy assessments were started by developing the indicators and themes of the integrated mathematics and natural sciences as well as determining the test form. The themes
were taken from various sources, such as Science News, www.sciencenewsforstudents.org, www.readwork.org, and other sources. The selected test form was the testlet in which each testlet consisting of 3 items as the indicators of literacy and numeracy achievements. The test instruments consisted of 12 testlets tested to 310 science program students of SMAN 2 and SMAN 3 Tegal City in February 2020.

12 themes or materials were used in the literacy and numeracy test. Those 12 themes were popular science readings. Each theme has there items to measure the literacy and numeracy level that there were 20 items of literacy test and 16 items of numeracy test. The test instruments have been validated by two study field experts and two psychometric field experts as well as 10 teachers and practitioners.

In the modern test theory measurement, Rasch model is considered as the most objective measurement model. The utilization of Rasch model in education measurements has the excellence in high specific objectivity and item parameter estimation stability. Rasch model connects the opportunities to correctly answer each item \( P(\theta) \) as the function of ability \( \theta \) with the constant item difficulty level \( b \) through the relationship presented in equation 1 [13].

\[
P_i(\theta) = \frac{e^{(\theta - b)}}{1 + e^{(\theta - b)}},
\]

Validity using the Rasch model refers to the Messick validity where construct validity is considered as a single concept consisting of some aspects [14]. Rasch analysis explained more comprehensive construct validity than the classical test theory. At least, there are six construct validity aspects: content, substantive, structural, external, generalizability, and consequential aspect [15]. The content validity aspect, related to the empirical evidence, mentioned that the test items which are appropriate or based on model are used as well as the items’ difficulty levels are in accordance with the test participants’ difficulty levels [16].

3 Results and Discussion

The validators’ interview results showed that the literacy and numeracy test constructions were valid seen from the material, psychometric, and appropriateness aspects with the test subjects. The example of literacy and numeracy test items in the third theme is shown as follows. The heating oceans resulted from the climate changes produce less fish

It is harder to catch the fish due to the climate changes which continuously heat the world oceans. The oceans’ increasing temperature for more than 80 years has continuously reduce the catching of 124 fish and shellfish species which can be harvested without causing long-term damages to the population up to 4.1 percent as reported by a recent study. Excessive catching has worsened the decrease, said the researchers. In some parts of the world, such as in Japanese Ocean where catching was excessively made, the catching decrease reached 35 percent. This study, on 1 March Science, the researchers investigated the changes starting from 1930 to 2010 on 235 fish and shellfish populations spread in 38 ocean areas. Averagely, the temperature of the earth ocean has increased approximately half degree Celsius at that time although the temperature changes varied from one location to the others.

Approximately 8 percent of fish and shellfish population investigated experienced loss caused by the ocean heating, while approximately 4 percent of populations increased at that time. Certain species, such as black sea bass along the east coast of the US Ocean, have grown very well in warmer waters. However, with the continuous heating, the benefits tended to evaporate and even those fish have reached their heat limits, said Christopher Free, a
It is explained in the passage that climate changes caused the heating water temperature of the ocean water surface. The followings are the chemical compounds available on the air making the earth temperature increase, except

A. CO₂  B. CH₄  C. O₂  D. H₂O  E. SO₂

According to the passage, the followings are the appropriate explanations related to the relationship between the increasing ocean water temperature and the decreasing fish catching:

A. at high water temperature, the oxygen concentration will relatively decrease that many fish find them difficult to live and select the cooler water temperature
B. all fish cannot live at the medium or high water temperature
C. all fish prefer living at the extremely low water temperature
D. the increasing water surface temperature at the ocean makes the fish moves more actively that they are harder to catch
E. many fish died due to the increasing ocean water temperature

The earth ocean surface temperature has increased approximately half degree Celcius from 1930 to 2010. Based on the data, the temperature in 2130 will presumably increase up to

A. 0.5°  B. 1.0°  C. 1.5°  D. 2.0°  E. 2.5°
Table 3. Test item difficulty level and appropriateness in the numeracy test

<table>
<thead>
<tr>
<th>Item</th>
<th>Difficulty Level</th>
<th>P-Value</th>
<th>P Outfit-t</th>
<th>Infit-t</th>
<th>Appropriateness</th>
</tr>
</thead>
<tbody>
<tr>
<td>1c</td>
<td>-1.561</td>
<td>0.652</td>
<td>-0.355</td>
<td>-0.495</td>
<td>Appropriate</td>
</tr>
<tr>
<td>2c</td>
<td>0.339</td>
<td>0.986</td>
<td>-2.672</td>
<td>-2.551</td>
<td>Appropriate</td>
</tr>
<tr>
<td>3c</td>
<td>-0.142</td>
<td>0.345</td>
<td>0.554</td>
<td>0.882</td>
<td>Appropriate</td>
</tr>
<tr>
<td>4c</td>
<td>-0.593</td>
<td>0.652</td>
<td>-0.728</td>
<td>-0.508</td>
<td>Appropriate</td>
</tr>
<tr>
<td>5c</td>
<td>-0.524</td>
<td>0.733</td>
<td>-1.134</td>
<td>-0.985</td>
<td>Appropriate</td>
</tr>
<tr>
<td>6b</td>
<td>-2.081</td>
<td>0.780</td>
<td>-0.454</td>
<td>-0.092</td>
<td>Appropriate</td>
</tr>
<tr>
<td>7b</td>
<td>0.309</td>
<td>0.984</td>
<td>-2.671</td>
<td>-2.743</td>
<td>Appropriate</td>
</tr>
<tr>
<td>8b</td>
<td>0.874</td>
<td>0.612</td>
<td>-0.251</td>
<td>-0.079</td>
<td>Appropriate</td>
</tr>
<tr>
<td>8c</td>
<td>-0.073</td>
<td>0.013</td>
<td>3.390</td>
<td>3.455</td>
<td>Appropriate</td>
</tr>
<tr>
<td>9b</td>
<td>2.025</td>
<td>0.000</td>
<td>2.294</td>
<td>0.462</td>
<td>Appropriate</td>
</tr>
<tr>
<td>10b</td>
<td>0.750</td>
<td>0.783</td>
<td>-0.716</td>
<td>-1.057</td>
<td>Appropriate</td>
</tr>
<tr>
<td>10c</td>
<td>0.683</td>
<td>0.959</td>
<td>-1.644</td>
<td>-1.295</td>
<td>Appropriate</td>
</tr>
<tr>
<td>11b</td>
<td>0.236</td>
<td>0.165</td>
<td>1.188</td>
<td>2.003</td>
<td>Appropriate</td>
</tr>
<tr>
<td>11c</td>
<td>-0.210</td>
<td>0.539</td>
<td>-0.256</td>
<td>-0.202</td>
<td>Appropriate</td>
</tr>
<tr>
<td>12b</td>
<td>0.354</td>
<td>0.774</td>
<td>-0.941</td>
<td>-1.455</td>
<td>Appropriate</td>
</tr>
<tr>
<td>12c</td>
<td>-0.387</td>
<td>0.765</td>
<td>-1.325</td>
<td>-1.402</td>
<td>Appropriate</td>
</tr>
</tbody>
</table>

Minimally, there were two criteria in viewing the test item appropriateness with the model: by seeing the opportunity price of data appropriateness test with the model and both outfit-t and infit-t values. By taking the significance level of 0.01, the p-value for each item having the value higher than 0.01 was considered appropriate with the model. Meanwhile, both outfit-t and infit-t values were considered still appropriate with the value model of between -2 and 2, for big samples could be tolerated from -3 to 3. In the literacy items, there were two items having the p-value of less than 0.01, yet from both outfit-t and infit-t values were still appropriate with the model. Meanwhile, in numeracy items, all items had the p-value of more than 0.01 that it can be concluded that those were appropriate with the Rasch model used.

The literacy scores obtained by the students were at the maximum level of 18, while the minimum score was 5 with the students’ average achievement of 11.5 or 57.45 % from the maximum score. The literacy score interval was 13, while the literacy score standard deviation was 2.6. The students’ numeracy scores were at the maximum score of 12 and the minimum score of 0 with the students’ average achievement of 6.9 or 43.18% from the maximum score. The numeracy interval score was 12, while the numeracy score standard deviation was 2.3. The results of the analysis also show that literacy and numeracy skills are correlated by 0.46 at a significance level of 5%. The results of this study are in line with previous studies that show literacy and numeracy abilities have a significant correlation [17],[18].
4 Conclusion

The Senior High School science program students’ literacy and numeracy test instruments met the validity aspects both from the material and psychometric aspects. The construct validity aspect with the Rasch model approach showed that the Senior High School science program students’ literacy and numeracy test instruments were valid seen from the level of difficulty and appropriateness of items with the model. The literacy achievement of the XII Grade Students of SMAN 2 and SMAN 3 Tegal City was 57.45 % and their numeracy achievement was 43.18 %. From the results of this study, this instrument can be used to assess literacy and numeracy skills at the senior high school level of the Sciences program.

References

[10] Gal1. & Tout D 2014 Comparison of PIAAC and PISA frameworks for numeracy and mathematical literacy
Job Demands, Leaders' Support and Burnout of Nurses in Indonesia

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{puguh.widiyanto@unimma.ac.id}²
Universitas Muhammadiyah Magelang, Indonesia¹,²,³,⁴

Abstract. One of the social service workers is a nurse, who has a very demanding job. Job demands refer to the physical, psychological, social aspects of a job that require physical and psychological abilities on an ongoing basis which can lead to job stress, depression, and fatigue. This study aimed to determine the relationship between job demands and leaders' support with burnout of nurses in the inpatient room of Muntian Regional Hospital, Magelang Regency. The research design used was quantitative with cross-sectional survey data collection methods using a closed questionnaire. The three instruments used have validity and reliability values of more than 0.80. The sample in this study was 49 nurses in the inpatient room who were selected by random sampling. Data were analyzed statistically using the Spearmen Rank Test. There was a significant relationship with a strong positive pattern between work demands and burnout (p = 0.001; α = 0.05 with r = 0.490), meaning that the higher the work demands, the greater the burnout. Meanwhile, for leaders' support for burnout, it is known that there is a significant relationship with a strong negative pattern between leaders' support and burnout (p = 0.001; α = 0.05 with r = -0.526) meaning that the more leaders' support, the smaller the incidence of burnout.

Keywords: Work demands, Leaders' support, Burnout

1 Introduction

Burnout is a state of physical, emotional, and mental fatigue as a result of prolonged work stress and is usually experienced by someone who works in the field of social services and has a very demanding job such as a nurse [1] [2]. Burnout is indicated by physical, mental, and emotional exhaustion and withdrawal from the work environment.

Burnout is part of three dimensions, namely: 1) emotional saturation where a person feels frustrated, sad, and depleted of emotional data sources 2) loses personal identity where the nurse's mind becomes negative, behaves cynically and maintains a distance from the patient 3) decreased desire for achievement where a person feels it is difficult to give appreciation to himself [3]. Thus, job burnout harms nurses at work.

The burnout rate experienced by nurses is quite high. Based on research in Taiwan, health workers who experienced burnout were 66% nurses, 38.6% doctors, 36.1% administrative staff, and 31.9% technical medical staff [4]. Furthermore, an Iranian study showed that nurses experienced 34.6% emotional burnout, 28.8% loss of personal identity, and a 95.75% decrease in desire for achievement [5]. Based on research conducted in Europe, 30% of nurses reported...
being bored with work. Meanwhile in Indonesia, based on the results of research in Palembang, it was found that 55.3% of nurses had the potential to experience job burnout [6]. Also, the results of research in Jakarta showed that 89% of nurses experienced burnout [7]. Based on a survey from the Indonesian National Nurses Association (PPNI), 50.9% of nurses working in four provinces in Indonesia experienced burnout [8]. Therefore, it can be perceived that the rate of burnout either abroad or in Indonesia is quite high. Treating patients can be one of the factors contributing to the occurrence of burnout in nurses.

To deal with this situation, a leader may provide encouragement and support for employees so that they can develop and have a positive impact on the work institution such as, having quality work and a high-quality service system to make clients feel satisfied with the service provided. The leaders’ support also assists in carrying out work while maintaining good communication to make employees comfortable and enthusiastic.

Job demands refer to physical, psychological, and social aspects of a job that require physical and psychological abilities on an ongoing basis. Various studies have shown that job demands influence stress, depression, and burnout. The higher the work demands, the higher a person's depression level. Research in the UK explained that the low level of job demands combined with high control over work and supportive relationships in the workplace increases work welfare [9].

Several factors can affect the progress of job demands on employees, namely: 1) work schedule is time set by the workplace agency to complete the work given. 2) workload and work speed represent the level of workload experienced by employees because work speed is determined, so work speed and workload can affect employee behavior and employee mental health. 3) workload is the intensity of work required in the form of employee skills and creativity. 4) work control includes freedom to do one's job following job descriptions, determining rest periods. If someone has low work control, it tends to trigger prolonged work stress so that they can experience burnout.

2 Method

This was quantitative research, especially a cross-sectional design which aimed to determine the relationship between two or more variables. The design is selected because the dependent variable can be researched at one time [10]. It is used to determine the relationship between job demands and leaders’ support with burnout for inpatient room nurses in Muntilan General Hospital. The population in this study were nurses who worked in inpatient rooms with a total population of 102 nurses.

Random sampling was carried out by making a nurses’ lottery numbers from 1 to the end and then it was taken by shaking it according to the number of samples needed from the room [11]. The number of samples in this study was 49 people. The number of samples was divided into 8 wards. The data collection instrument was a questionnaire with a Linkert scale. The questionnaire consists of three scales: job demands questionnaire, leaders’ support questionnaire, and burnout questionnaire filled out by the executive nurses.

This study aimed to determine the relationship or correlation coefficient between research variables, namely the independent variable and the dependent variable, both of which had an ordinal data scale. To test the hypothesis, Spearman's rank-order correlation test is used [11].
3 Results and Discussion

The research results can be perceived in the following table. The data can be perceived in Table 1 that 49 respondents were between 30 and 34 years (69.4%). Based on Table 2 it can be concluded that 46 respondents were female (93.9%). Table 3 shows that 41 respondents (83.7%) graduated with a Nursing Diploma. In terms of length of work, Table 4 indicates that 32.7% of respondents had been working for 1-5 years.

<table>
<thead>
<tr>
<th>Nurse Age</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 30</td>
<td>11</td>
<td>22.4</td>
</tr>
<tr>
<td>30</td>
<td>4</td>
<td>8.2</td>
</tr>
<tr>
<td>&gt; 30</td>
<td>34</td>
<td>69.4</td>
</tr>
<tr>
<td>Total</td>
<td>49</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 2. Characteristics of respondents based on their gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>3</td>
<td>6.1</td>
</tr>
<tr>
<td>Female</td>
<td>46</td>
<td>93.9</td>
</tr>
<tr>
<td>Total</td>
<td>49</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 3. Characteristics of respondents based on their educational level

<table>
<thead>
<tr>
<th>Diploma in Nursing</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>41</td>
<td>83.7</td>
<td></td>
</tr>
<tr>
<td>Bachelor of Nursing</td>
<td>8</td>
<td>16.3</td>
</tr>
<tr>
<td>Total</td>
<td>49</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4. Characteristics of respondents based on their length of work

<table>
<thead>
<tr>
<th>Length of Work</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-5 years</td>
<td>16</td>
<td>32.7</td>
</tr>
<tr>
<td>6-10 years</td>
<td>13</td>
<td>26.5</td>
</tr>
<tr>
<td>11-15 years</td>
<td>13</td>
<td>26.5</td>
</tr>
<tr>
<td>16-20 years</td>
<td>3</td>
<td>6.1</td>
</tr>
<tr>
<td>21-25 years</td>
<td>4</td>
<td>8.2</td>
</tr>
<tr>
<td>Total</td>
<td>49</td>
<td>100</td>
</tr>
</tbody>
</table>

Then, Table 5 reveals that 34 respondents (69.4%) experienced high job demands, 23 respondents (46.9%) experienced high leaders’ support, and 22 respondents (44.9%) experienced high burnout rates.

Table 5. Frequency distribution of job demands, leader’s support, and burnout

<table>
<thead>
<tr>
<th>Variable</th>
<th>Category</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job demands</td>
<td>High</td>
<td>34</td>
<td>69.4</td>
</tr>
<tr>
<td></td>
<td>Moderate</td>
<td>9</td>
<td>18.4</td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>6</td>
<td>12.2</td>
</tr>
<tr>
<td>Leader’s Support</td>
<td>High</td>
<td>23</td>
<td>46.9</td>
</tr>
</tbody>
</table>
Based on Table 6, it is found that there was a significant relationship between job demands and burnout of the nurse executives. The analysis also shows that there was a significant relationship between those two variables. A positive relationship pattern with moderate strength (r count = 0.490) means that the higher the level of job demand, the higher the burnout will be. Eventually, Table 7 shows the value of p = 0.001 (α = 0.05). Thus, it can be concluded that there was a significant relationship between leaders’ support and burnout. A negative relationship pattern with moderate strength (r count = -0.526) means that the higher the leader’s support, the lower the burnout level will be.

**Table 6.** Frequency distribution of the relationship between job demands and burnout

<table>
<thead>
<tr>
<th></th>
<th>Category</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job demands</td>
<td>Moderate</td>
<td>18</td>
<td>36.8</td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>8</td>
<td>16.3</td>
</tr>
<tr>
<td>Burnout</td>
<td>High</td>
<td>22</td>
<td>44.9</td>
</tr>
<tr>
<td></td>
<td>Moderate</td>
<td>18</td>
<td>36.7</td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>9</td>
<td>18.4</td>
</tr>
</tbody>
</table>

**Table 7.** Frequency distribution of the relationship between leaders’ support and burnout

<table>
<thead>
<tr>
<th></th>
<th>Category</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leaders’ Support</td>
<td>Low</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>Moderate</td>
<td>2</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>8</td>
<td>16.3</td>
</tr>
<tr>
<td>Burnout</td>
<td>Low</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>Moderate</td>
<td>1</td>
<td>2.0</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>7</td>
<td>14.3</td>
</tr>
<tr>
<td>Total</td>
<td>Low</td>
<td>9</td>
<td>18.4</td>
</tr>
<tr>
<td></td>
<td>Moderate</td>
<td>10</td>
<td>20.4</td>
</tr>
<tr>
<td></td>
<td>High</td>
<td>5</td>
<td>10.2</td>
</tr>
</tbody>
</table>

Age conditions can affect the physical and psychological condition of nurses. Age is an important demographic aspect to observe because it reflects several values such as experience, maturity to think, and knowledge and ability to certain values. Older nurses have lower levels of job saturation than the younger ones [12].

Women are emotionally better able to handle greater pressure [13]. Female nurses experienced more burnout, most likely because female nurses experienced a conflict between taking care of the family and taking care of the patient professionally which was their responsibility [14].

In general, a nurse’s level of education can affect the incidence of burnout. A high level of education causes a stronger desire to do work with high challenges [15]. Other research also states that someone with high education has high expectations so that the person is more easily depressed when there is a gap [16].
The length of work affects a nurse's commitment to carrying out duties. The longer the respondent works, the more susceptible to experience burnout because the nurse's job is monotonous while more experience makes it easier to handle patients and certain situations [17]. This research is in line with other research which states that there is a positive effect on job demand with burnout [18]. The large demands of duties and responsibilities will drain the energy and mind so it is natural that the level of fatigue is also higher. It is believed that excessive work demands can cause burnout for employees.

The results of this study are by other studies which state the influence of social support from leaders on employee burnout at PT Harian Rakyat Bengkulu Pers with negative results, which means that if social support from the leaders is good, it will reduce the occurrence of burnout [19]. Leaders’ support is very influential for employees because it may create comfort, concern, self-esteem, or all forms of assistance and appreciation given by leaders to employees. Thus, if leaders’ support does not exist, it will result in burnout for employees [20].

4 Conclusion

To sum up, nurses involved as respondents of this study are mostly above 30 years old, most of them are female, graduated with a nursing diploma, and had been working for 1 to 5 years. Job demands, leader’s support, and burnout are in the high category respectively. There is a significant relationship between job demands and burnout with a moderate positive relationship pattern, which means that the higher the job demands, the higher the burnout will be. There is a significant relationship between leaders’ support and burnout with a negative relationship pattern, which means that the higher the leaders’ support, the lower the burnout will be. Eventually, some actions are required to increase leaders’ support including clinical supervision, discussion of case reflections, and increasing work motivation.

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References


The Concept of Early Childhood Science Learning

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Abstract. This study aims to determine the appropriate science learning concept for early childhood based on the results of a literature review. Literature review research refers to the relevant study research results on the early childhood science learning topic. The results showed that there were several things related to early childhood science learning. Namely: (1) teacher competence in the science learning process, (2) basic concepts of early childhood science learning, (3) science learning program, (4) science learning process in early childhood.

Keywords: Science; early childhood; learning concepts

1 Introduction

Each individual brings different uniqueness, interests, aptitude, and competence. The variety of experiences, stimulation, opportunities provided by the environment has a substantial influence on the formation of a curiosity [1]. As a child growing up, curiosity will grow more widely following their growing social environment. Educational institutions become a place for every child to hone their interests, aptitude, knowledge through more structured activities. The early childhood learning process ideally includes both academic development abilities, cognitive, language, social, emotional, physical, and motor development. However, in fact, until now, learning mainly at the kindergarten level, is still centered on improving academic ability. There is a tendency for learning to take place in a teacher center and assume that teachers understand many things while children do not have any knowledge. This learning method can be detrimental to children because it contradicts the principles of acquisition of knowledge that occurs through exploration and play activities.

Curiosity promotes a child to investigate the surroundings and build new understandings. Children gain knowledge by gathering information through the surrounding environment, through events that are seen or experienced by themselves. By playing, allows children to acquire something new through fun things and allowed them to develop optimally build upon the interests and the child's talents [2]. Children learn many ideas through concreted firsthand experience and are simultaneously building knowledge and other development aspects of themselves [3].

Science learning is an applicative learning process of obtaining knowledge that takes place through direct interaction between individuals and the environment that aims to find problem-solving creatively. Therefore, the concept of science needs to be a significant part of the child's learning process as an effort to optimize children's understanding. Learning science is an activity that requires the classification of scientific investigations and processing. At the early childhood level, these two classifications are realized through meaningful play activities and daily
experiences. Which is scientific according to the level of understanding and development of children.

2 Method

This research is a literature review research from various sources relevant to the topic of science learning concepts in early childhood. The literature is relevant to the theme obtained from several sources such as research gate, google scholar, and books. The technique of conducting a review done by looking for similarities in several kinds of literature and concluding. Data or information analysis done in three steps. Starting with: (1) searching the literature following the topic, (2) finding the main idea of each article, (3) combining the main idea into one complete conclusion on the problem according to the topic.

3 Results and Discussion

3.1 Teacher competence in science learning

Teachers have a responsibility to prepare learning programs that include the selection of strategies, materials, infrastructure for learners under the abilities and children development. However, in previous research, it was found that not a few teachers feel less mastery of the material covered and how to organize the right activities, making it difficult in teaching science to children. Resulting in the teachers rarely teach science to the children [4]. Which supported by Barenthien's research that pedagogical competence alone is not enough but needs to be accompanied by mastery of science concepts that include materials and diverse teaching strategies to support the basic understanding of children [5]. In line with this, Akman's research suggested that the teacher's positive attitude and support towards children is also a competency that teachers need to hone to adequate more understanding and build a child's positive attitude [6]. Including mastering the right language according to the content of the learning material so can positively impact learning [7]. Regarding these Saçkes findings on teacher competence, found that teacher participation in training related to science learning (program preparation, strategy, materials) is one way to improve teacher competence. This training also affects how often science being teach in the classroom [8].

3.2 Basic concepts of early childhood science

Niklas Pramling, in his books, suggests that before thinking about how children learn science, we need to see first how the children think. We should also learn to understand how children construct their knowledge. This process is inseparable from the important role of the teacher, surrounding environment, children's social [9]. Exploration by children indirectly builds knowledge and brings children closer to science learning related to living things, natural events, and technology [10]. Children construct knowledge through exploration that can develop children's motivation to learn and do science activities, as well as deduce things using their language. Start from reading books and questioning the content of books to playing games that contain elements of science [11][12]. In line with this, Trundle's research stated that early childhood science learning has a cycle of "Play-Exploration-Discussion". Which is: 1) Play,
children are trained to pay attention, question, wonder at new things. 2) Exploration, including predicting, observing, collecting data/information. 3) Discussions, in the form of a series of reflections, knowledge formation, explanations, sharing info, making new questions, concluded [13].

3.3 Early childhood science learning process

Children who are used to being trained and have good primary science skills can remember and understand a learning topic better [14]. Kiraz, in his research, states that science learning needs to be given with fun, doing it yourself, finding out for themselves, using their senses. These allow children to develop their thinking skills directly and are not limited to information-only giving by teachers [15][16]. The process of science learning based on studies conducted by Dejonckheere takes place through several stages include, 1) imitation, where the child tries to imitate what exemplified, 2) exploration and experimentation [17]. Further stated that children's independent activities could improve more of their science skills. This approach allows children to conduct freely observe, integrated activities, systemic new knowledge with daily life suitable with the age, characteristics, and child development [18]. Utami's findings associated with the science learning process state that every exploration, experiment, problem-solving activity, is closely related to language development. The child learns to communicate associated with is seen, obtained, discovered, and resolved [19]. Therefore, teachers need to plan effective science learning strategies to both introduce science concepts and developing children's literacy [20]. Utilizing science-themed books provides children the chance to improve science literacy skills in different and more challenging ways for children [21].

3.4 Early childhood science learning program

Differences in children's understanding and knowledge become one of the challenges for children's learning, especially in managing and solving conflicts during the learning process [22]. Integrated learning activities aim to create more enticing learning activities as well as rich in content. For example, the integration between science and art, where children taught not only the ability to think scientifically but also the aesthetics of art simultaneously [23]. González study stated that involving children in science activities presents challenges for children [24]. In line with this, Macdonald state that children grow up to be competent individuals when allowed to develop ideas and expectations according to their abilities [25].

Another challenge faced is changing the paradigm of the teacher center into the student center by providing opportunities for children to develop scientific experiences and invite children to participate more actively in learning activities. The development of meaningful play-based learning programs, provide varied activities, exchanging information between teachers and learners is one of the efforts to build new science knowledge together [26][27]. The child has been possessed curiosity and acquisition of factual knowledge from the nearest environment. It becomes one of the most effective learning programs in developing children's scientific thinking skills, including the ability to understand and solve existing problems [28][29]. Support this Zinsser, research stated that child-centered activities develop the confidence, social skill, motor, and also adventurous spirit of children [30]. By experiences problems that are close to the child's daily life, they effectively carried out acquiring knowledge concept from factual to abstract.
4 Conclusion

Science learning is a process of obtaining knowledge that takes place through direct interaction among individuals and the environment that aims to find problem-solving creatively. Teacher competence can be improved through science learning training. The training is focused on mastering the scope, material, and strategies of science learning. Every child gaining and processes knowledge by collecting information through personal experience. The science learning process includes providing various activities and media. Including strategy selection, observation, classification, communicating the process and results of activities. Early Childhood Science Learning Program, integrated with material selection and learning activities planning which, fun, meaningful, accommodating the abilities and needs of children.

References


Teacher’s Effort in Difabel School to Improve Student’s Life Motivation

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Abstract. This research aims to determine the efforts of teachers at SLB Ma'arif Muntilan in increasing the life motivation of their students. Based on semi-structured interview data, we found that students with disabilities have difficulty communicating with the outside community. The inability of the community to understand students with disabilities makes students with disabilities less acceptable in socializing in a pluralistic society. This makes students less self-confidence. We conclude that schools use art in an effort to increase students' self-confidence. The talents possessed by students with disabilities are sharpened to create a sense of pride in themselves. Where this is the beginning in an effort to increase life motivation.

Keywords: Difabel, Life motivation, Art

1 Introduction

It is estimated that there are 11 million people with disabilities in Indonesia. Unfortunately, they still experience various discrimination in fulfilling their rights. This can be seen from the inadequate public services and discrimination in society against diffables. Even though people with disabilities are a group of people who are the same as other people, they just have different needs. Negative views of society like this can have a negative impact on self-concept, willingness and motivation.

This results in feelings of inadequacy, hopelessness, worthlessness, insecurity, feelings of inferiority and anxiety which actually hinders persons with disabilities from self-actualizing. The problem of diffable with a low level of motivation is also felt by children with disabilities at the Ma'arif Muntilan Special School (SLB). This school has 170 students consisting of 114 elementary school children, 34 junior high school children, and 22 high school students, the students consist of deaf, blind, and mentally disabled. They as students have not had the same opportunities as other students.

In Indonesia, society still tends to marginalize people who have special needs. Hyperactive, autistic and Down-syndrome children are often seen as disturbing comfort, because they are difficult to control and not easy to communicate with. The blind, deaf, and disabled are often considered incapable and unproductive at work. This growing stereotype makes it less possible for them to be accepted into life in society [1].

So far, there are not many vehicles provided for students with disabilities, the opportunities for self-actualization are still limited. The teachers at SLB Ma'arif Muntilan realize that their students are different. Therefore, their future needs to be prepared early on. The classic problem
that occurs in diffables is unemployment, this is because only a few parties entrust their work to diffables [2]. Currently, there are not many companies that accept children with special needs as their employees. So, the school took a more creative initiative to prepare students to face the future.

In conventional schools, the use of the left brain is more dominant. The left-brain functions in terms of differences, numbers, sequences, written language, computation and logic. Left brain memory is short term. If there is damage to the left brain, there will be disruption in the function of language, speech and mathematics [3].

Students at SLB Ma'arif Muntilan cannot be treated the same. Teachers in schools maximize the use of the right brain, because the right brain functions in terms of equality, imagination, creativity, form or space, emotion, music, and color [3]. So, the teachers train their students' right brains with arts, especially those related to music, because music can play an important role in increasing multi intelligence in children with disabilities [1]. In addition, musical activities allow children with disabilities to gain self-confidence, self-esteem and motivation to live better [1].

Here are some studies on diffables, article by Rahayu and Dewi which are discuss services for people with disabilities in terms of physical buildings [4]. Muttaqin stated the social criticism of the Koran that does not position the blind diffable as oppressed and marginalized. However, it is seen as a form of physical diversity with proportional rights and obligations [5]. Furthermore, Savira, Wagino, and Laksmiwati explain that blind children have obstacles in transforming and manipulating 3-dimensional objects compared to 2-dimensional objects, which are caused by difficulties in maintaining information in the form of imagery for quite a long time. In communication, they have obstacles in mastering the theory of the mind, which causes difficulties in understanding other people's point of view [6].

From past research, it was found that some researchers only focus on the cognitive and physical domains. Previous researchers have not discussed in depth how to increase the motivation for life of students with disabilities. So, this research will discuss what are the efforts of the teachers at SLB MA'arif Muntilan to increase the motivation for life of their students?

2 Method

This research is a qualitative research with a psychological approach. Qualitative method is a data collection method that emphasizes its analysis on the deductive and inductive inference processes as well as on the analysis of the dynamics of the relationship between observed phenomena, using scientific logic.

In qualitative research, the term sample is changed to subject, informant, participant or research target. The author uses the term informant. The technique used to determine the subject in this study was purposive sampling. Purposive sampling is a sampling technique for data sources with special considerations. The sample in question is considered to know best about what is the problem to be researched. The sample criteria in this study are: (a) Blind and deaf students, (b) actively participating in school activities, and (c) live in the school dorm.
3 Results and Discussion

3.1 Definition of children with special needs

Children with special needs are children who need special handling because of developmental disorders and disorders experienced by children. In connection with the term disability, children with special needs are children who have limitations in one or several abilities, both physical, such as blind and deaf, as well as psychological in nature such as autism and ADHD. The Ministry of Women's Empowerment and Child Protection of the Republic of Indonesia 2013, explained that children with special needs are children who are slow (slow) or experiencing disorders (retarded) who are difficult to succeed in school as children in general. Children with special needs are children who educationally need specific services that are different from children in general [8].

The purpose of Islamic religious education in schools is as a fortress of aqidah, maintaining the teachings of the Qur'an and hadiths, creating individual and social integrity, moral and ethical foundations in dealing with science and technology and culture and meeting rational and suprarational needs. [9]. Regardless of the condition of children with special needs, schools still try to serve their students with a variety of methods according to the child's nature.

3.2 Life motivation

Abraham Maslow believes that humans are basically good and have the urge to grow continuously. The hierarchy of needs, developed by Maslow, is a pattern commonly used to classify human motives. The hierarchical system of needs includes five categories of motives which are composed of the lowest needs that must be met before meeting higher needs [10].

The five levels of need as described by Hamner and Organs are shown in the following levels of need: 1) Physiological Needs Food, water, sex, shelter, 2) Need for a sense of security Protection against dangers, threats, and security guarantees. 3) Social needs give and receive love, friendship, affection, property, association, support. When the first two levels of need are met, a person becomes aware of the need to have friends. 4) Need for Self-Esteem The need for achievement, adequacy, power, and freedom. In essence it is a need for independence or freedom. Status, recognition, respect and dignity. This need is a need for self-respect. 5) Self Actualization Needs The need to realize one's ability for continued self-development and the desire to become more and more capable of becoming a person [10].

Children with special needs face more problems in their social development. These obstacles result from a lack of motivation, fear of facing the wider social environment, feelings of inferiority, shame, attitudes of society that often show rejection, humiliation, indifference, unclear social demands, and limited opportunities for children to learn about behavior patterns. Received [11]. This causes children with visual disabilities to sometimes have low self-confidence.

3.3 Teacher’s effort

SLB Ma'arif Muntilan carries out learning activities as usual, referring to the government curriculum. But on the other hand, teachers, especially school principals, provide training for children with disabilities in the arts. Deaf children are given dance training, blind children are given musical skills. Children with other special needs are given training according to their
strengths. There are special school students who like to cook, play chess and paint. So the teachers prepare themselves to facilitate their students.

One of the things done by the school is to collaborate with a team of students to create an art stage. The stage in question is a space in front of the public to display art creations from training in schools. Teachers and student teams set the stage in the middle of Car Free Day on Sundays, when many people gather to play sports or just take a walk. Art performances that are displayed on the stage are: qiro'ah, dancing, singing and painting. Preparation is done in such a way, starting from training on certain days of the week, preparing equipment such as costumes and make-up. The appearance of students with disabilities in front of a large public creates a distinct impression both for the audience and the students who appear. Happiness and joy appeared on the faces of the students who appeared. They expressed their joy at seeing a new place with such enthusiastic and amazed people.

Likewise, the audience who witnessed art performances, some from the audience who had never seen an art performance by a student with disabilities. So far, students with disabilities tend to be far from their reach, so that when they present themselves it becomes very enjoyable.

3.4 Discussion

Researchers found various data and information about teachers' efforts in increasing life motivation. The data and information are the arts developed by teachers to increase students' motivation include: qiro'ah, dancing, singing and painting. Then, the performing arts that are held in the community becomes an influential vehicle that creates pride and self-confidence in students with disabilities of SLB Ma'arif Muntilan.

From the findings, it can be seen that the technique of educating students with disabilities needs to be created and adjusted to the talents and interests of students. Providing insight into the arts such as music, dance and painting is a way of expertise. Learning in a cognitive-oriented school is balanced with artistic mentoring that is rich in taste, so that students with disabilities enjoy life more and are motivated.

4 Conclusion

From the findings of the data above, it can be seen that the technique of educating students with disabilities needs to be created and adjusted to the talents and interests of students. Providing insight into the arts such as music, dance and painting is a way of expertise. Learning in a cognitive-oriented school is balanced with artistic mentoring that is rich in taste, so that students with disabilities enjoy life more and are motivated.

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References

Biopsychosocial Impact of Breast Cancer Patients: A Literature Review

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Abstract. The purpose of this literature review is to see the biopsychosocial impact of breast cancer sufferers in Indonesia. The literature review method uses secondary data from previous research on the biopsychosocial impact of breast cancer in Indonesia, which was searched using the Google Scholar search engine and Pubmed from 2015 to 2020. The results of the literature review stated that 20 journals show the biological/physical impact felt by sufferers’ cancer is pain, nausea, vomiting, weight loss, hair loss, skin discoloration, and decreased appetite. The psychological impact that is felt is fear of death, anxiety, shame, depression, even to the level of suicidal thoughts. The impacts that occur in breast cancer sufferers are in the form of biological/physical impacts, psychological impacts and social impacts that require intervention to overcome them. Suggestion: it is necessary to do non-pharmaceutical therapy to deal with client complaints so that it can support the patient's current medical therapy.

Keywords: Breast cancer, physiology impact, psychology impact, social impact

1 Introduction

Breast cancer is one of the most common types of cancer in women, although there are some men who suffer from breast cancer. The incidence of breast cancer in men in America is less than 1%. Meanwhile, the incidence of women is mostly in the 70-year age group and the least is the 20-year age group [1]. The incidence of breast cancer increases with age. The incidence of breast cancer increases with the times with various causes of changes in people's lifestyles such as alcoholic drinks, rarely exercise, smoking habits, and high-fat foods which are one of the risk factors for triggering the incidence of breast cancer [2]. Other studies suggest that genetics, menopause, hormonal contraceptives are also determinant factors for breast cancer [3]. The incidence of cancer in Central Java ranks first in Indonesia with breast cancer being one of the most common types of cancer [4].

Some of the effects of breast cancer include negative behavior in social relationships, physiological disabilities, shaky belief/spirituality, psychological instability, and decreased enthusiasm for life. Another study states that patients also want to commit suicide because they feel fear, anxiety, sadness, shame, anger at God, loss of self-confidence, stress, depression and hopelessness. In addition, the environment also affects sufferers, because an uncomfortable environment will increase stress. The main support comes from the closest people to increase the enthusiasm for life and motivation of the sufferer. Economic problems also have an effect, especially financially, for routine medical expenses, adding to the burden on sufferers [5]. Other
studies have also stated that breast cancer sufferers also experience body image disorders [6].

Several measures to carry out screening have been programmed by the government, including breast self-examination (BSE), clinical breast examination (SADARNIS), and screening mammography (K8). Nursing management for breast cancer consists of interventions, programs, and screening. Interventions for breast cancer include: reducing fatigue, pain, anxiety, menopausal symptoms, overcoming nausea, improving quality of life, and physical activity. Some programs for breast cancer patients include nutritional fulfillment, physical activities to reduce mucositis and lymphadema, as well as programs to increase knowledge, treatment techniques and increase discomfort. While the screening activity consists of several activities to explore problems experienced by clients with breast cancer [7].

The Ministry of Health stated that the breast cancer rate in Indonesia has reached 42.1 people per 100,000 population. The average death rate from this cancer reaches 17 people per 100,000 population. Global Cancer Observatory 2018 data from the World Health Organization (WHO) shows that the most cancer cases in Indonesia are breast cancer, which is 58,256 cases or 16.7% of the total 348,809 cancer cases. Cervical cancer (cervix) is the second most common type of cancer in Indonesia with 32,469 cases or 9.3% of total cases. Efforts to prevent and control both types of cancer are carried out by early detection in women aged 30-50 years. The factor that greatly influences the incidence of breast cancer is a family history of breast cancer (To optimize cancer prevention and control efforts in Indonesia, it is necessary to have massive efforts made by all parties, both government and society. The importance of public awareness for early detection. The earlier the disease is discovered, and received early treatment, the chances of recovery are much greater. Breast cancer is a type of malignant tumor that develops in breast cells. This cancer can grow if there is an abnormal growth of cells in the breast. These cells divide faster than normal cells and accumulate, which then forms a lump or mass. In a more severe stage, these abnormal cells can spread through the lymph nodes to other organs. Sentenced to have breast cancer would certainly be the most heartbreaking news for a woman. Naturally, women with breast cancer experience a range of emotions, ranging from anger, despair, to depression. Especially after undergoing breast removal surgery, the risk of a person developing serious mental health problems can also occur. Breast cancer is the most common cancer in women and is the most worrying cause of death. Not only can it cause painful physical symptoms, even lifethreatening, breast cancer also often causes psychological effects that reduce the spirit of the sufferer. Besides these two effects, breast cancer also has an impact on social relations. Examples of physical effects on breast cancer are hair loss, pain, loss of appetite, sour or bitter taste in the mouth, nausea and vomiting, shortness of breath and heart rate abnormalities due to anemia, dry and sore skin, bleeding such as easy bruising, bleeding gums, and nosebleeds, frequent infections, difficulty sleeping, feeling tired and weak throughout the day, decreased sexual desire and impaired fertility (infertility), constipation or diarrhea, mouth sores. Psychological disorders such as depression, stress, and anxiety and anger. Meanwhile, the social impact that occurs is the change in the quality of life of individuals from how well humans interact and play a role in their social environment. This is shown in social relationships within the family environment and the surrounding community, contributions made to others, and so on. The quality of life in this dimension will be disturbed when a person is suffering from an illness, thus pulling him into an "isolated" situation and making the social environment "allowing" the sufferer to be free from his social role.

However, this can create burdens for others, including financial burdens for medical expenses, inability to be enthusiastic for their environment and so on. Body image can influence the efficacy of rehabilitation interventions, especially in short-term follow-up. These various impacts must be overcome because they cause discomfort to the sufferer. Therefore, non-
pharmaceutical therapy is needed that can reduce the side effects of chemotherapy. These various impacts must be overcome because they cause discomfort to the sufferer. Therefore, non-pharmaceutical therapy is needed that can reduce the side effects of chemotherapy. These various impacts must be overcome because they cause discomfort to the sufferer. Therefore, nonpharmaceutical therapy is needed that can reduce the side effects of chemotherapy. Most women who come to the clinic usually have advanced breast cancer, so it requires a long treatment and costs a lot of money for treatment. Actually, prevention activities are very important as an effort to carry out early detection, so that it can be treated from the start. One way that can be done is to do breast self-examination. The factor associated with breast self-examination behavior is attitude. Information accessibility, and health service provider support [8]. Aggressive screening and public education programs are needed to prevent cases of increasing breast cancer.

2 Methods

This research uses literature study method or literature review. Literature review is a comprehensive summary of research that has been done on a specific topic to show readers what is already known about the topic and what is not known, to find rationale for research that has been done or for further research ideas. Literature studies can be obtained from various sources including journals, books, documentation, internet and literature. The literature study method is a series of activities related to the methods of collecting library data, reading and taking notes, and managing writing materials [9]. The type of writing used is a literature review study that focuses on the results of writing related to the topic or variable of writing. The data used in this research comes from the results of research that have been conducted and published in national and international online journals. In conducting this research, the researchers conducted a search for research journals published on the internet using the Google Scholar and Pubmed search engines with keywords: Breast Cancer, Physiology Impact, Psychology Impact, Social Impact. The data collection process was carried out by filtering based on the criteria determined by the author of each journal taken. The criteria for journal collection are as follows: Year of literature sources taken from 2013 to 2018, suitability of writing keywords, linkages of writing results and discussion. Strategies in collecting journals for various literatures using accredited journal sites such as Google Scholar and Pubmed. 3. An effective way of writing for journal settings by entering keywords according to the title of writing and performing searches based on advance search by adding the AND/OR notation or adding a + symbol. 4. Search based on full text 5. Conducting an assessment of the journal from the abstract whether it is based on research objectives and perform critical appraisal with existing tools Systematically the steps in writing literature reviews are as shown Figure 1.
Literature review begins with the written material which is considered sequentially from the most relevant, relevant, and sufficiently relevant. Then read the abstract, each journal first to provide an assessment of whether the problems discussed are in accordance with those to be solved in a journal. Noting the important points and their relevance to the research problem. To keep from getting caught in the plagiarism element, the author should also note the sources of information and include a bibliography. If indeed the information comes from other people's ideas or writing. Make notes, quotes, or information that are arranged systematically so that writing can easily be searched back if at any time needed [2]. Each journal that has been selected based on criteria, a conclusion is made that describes the explanation of self-directed learning in nursing education. Before the author makes conclusions from several literature results, the author will identify in a brief summary form a table containing the author's name, year of writing, study design, samples, instruments (measuring instruments), and research results. After the results of writing from several literatures have been collected, then the authors conduct an analysis of journals that contain the impact of breast cancer from a physiological, psychological and social perspective. Inclusion criteria show in Table 1.

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Research journals that match the inclusion criteria are then collected and a journal summary is made including the name of the researcher, the year of publication of the journal, study design,
research objectives, samples, instruments and a summary of the findings. The summary of the research journal is entered into a table sorted according to the alphabet and year of publication of the journal and according to the format mentioned above. To further clarify the abstract analysis and full text of the journal, read and observe it. The journal summary is then analyzed for the content contained in the research objectives and the results/research findings. The analytical method used is using journal content analysis.

3 Results and Discussion

3.1. Result

The results of the literature review stated that 20 journals show the biological/physical impact felt by sufferer cancer is pain, nausea, vomiting, weight loss, hair loss, skin discoloration, and decreased appetite. The psychological impact that is felt is fear of death, anxiety, shame, depression, even to the level of suicidal thoughts. A person with breast cancer will experience changes in his way of life. The uncertainty about remaining life and the existing risk of death makes a person feel that his life is limited. It is normal for cancer sufferers to have a depressive attitude, but some still look fresh and healthy because they try to cover up their illness from those around them and behave like other healthy people, while working on a treatment program to achieve a cure, continue to do activities or work. She has been practicing all this time and still has a positive relationship with the people around her. People like this usually have a positive quality of life [10]. The socio-cultural factors form elements of religion (religion), communication, information, social and family support, socio-economic conditions and health services. Socio-cultural factors can affect and improve the quality of life and care for breast cancer patients [11]. Approaches to both spirituality and religiosity do not necessarily show consistent results in affecting quality of life and life satisfaction in cancer patients. Therefore, based on the background of this study, the researcher intends to test whether there is a relationship between spiritual well-being and life satisfaction in breast cancer patients [12].

The results showed that breast cancer clients who undergo chemotherapy are closer to God, namely praying, accepting sincerely, continuing to socialize with other people, and having the hope of getting better in order to be able to carry out spiritual activities to the fullest. Further research is needed which is focused on study of the fulfillment of the spiritual needs of breast cancer clients undergoing chemotherapy [13].

Religious coping has an important role for respondents in dealing with breast cancer or in everyday life [14]. In providing nursing care to cancer clients who are undergoing chemotherapy, the patient's physical and psychological condition must be considered [15]. Negative feelings felt by breast cancer sufferers include anxiety, sadness and fear [16]. Mindfulness based spiritual can improve the spiritual well being of breast cancer patients undergoing chemotherapy [17]. Support for cancer sufferers is very beneficial to improve the quality of life [18]. If the sufferer cannot control his emotions, it will cause negative emotions such as anger, worry, fear, and depression [19]. The highest proportion of late treatment for respondents who lacked social support, there was a relationship between social support and treatment of breast cancer cases [20].
3.2. Discussion

The psychological condition of breast cancer patients that most respondents felt was helplessness in the form of emotional disturbances such as crying (68%) and experiencing anxiety in the form of worry thinking about the impact of treatment (84%). Respondents do not feel ashamed even though they suffer from breast cancer (72%), do not experience a decrease in self-esteem in the form of pessimism in life (80%), do not experience stress even though they suffer from breast cancer (64%), do not experience an angry response in the form of dislike when administered treatment (64%). Emotional support in the form of expressions of empathy, care and concern for the family concerned. Support of appreciation, this support is in the form of a positive expression of respect for someone. Informative support, this support is in the form of advice, directions and in the form of suggestions to those concerned. Through good family support, it can make an individual more independent and confident in his own abilities. Through this support can increase motivation in a person. Family support is an aspect that is very important and very necessary in determining the speed of the healing process experienced by the patient concerned. Research shows that there is a significant relationship between family social support and breast cancer treatment [21].

4 Conclusion

Breast cancer causes various unpleasant effects for the sufferer. The impacts that arise include physical impacts, psychological impacts, and social impacts. The impacts that occur in breast cancer sufferers are in the form of biological/physical impacts, psychological impacts and social impacts that require intervention to overcome them. Suggestion: it is necessary to do non-pharmaceutical therapy to overcome client complaints so that it can support the patient's current medical therapy.

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References


Experience of Health Workers in the Implementation of Adolescent Friendly Health Services (AFHS) in Magelang

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Abstract. The aim of this study was to explore the experiences of health workers in the implementation of AFHS in Magelang City. This study was a qualitative study using phenomenology method. The sampling method was a purposive sampling with 6 participants. Data was collected using semi-structured in-depth interviews and observations. The analysis was conducted using Colaizzi. Health workers' experiences on the implementation of AFHS were included obstacles to AFHS implementation and the expectation of the future implementation of AFHS. Emerging themes were (1) internal barrier is limited personnel with limited knowledge, capabilities and time as youth service officers, (2) external barriers to AFHS implementation (2.1) limited funding, (2.2) lack of cooperation in programs and sectors, (2.3) inadequate facilities for adolescents). (3) The expectations of AFHS implementation included: (3.1) increasing budget, (3.2) services focused on youth counseling: forming a special team of experts, services performed inside and outside the school, service facilities tailored the needs of adolescents, and using multimedia in education, (3.3) cross-program and sectoral involvement in implementation and monitoring resulting in policies that favor teenagers. Conclusion: The results of the study could be used as a reference for improving the quality of AFHS in health centers.

Keywords: Experience, health workers, adolescent friendly health services (AFHS)

1 Introduction

The results of the 2010 population census in Indonesia, show that 1 in 4 Indonesians are young people aged 10-24 years, of the 240 million Indonesian population, the number of teenagers is large, reaching 63.4 million or around 26.7 percent of the total population. Based on data from the Central Java Statistics Agency [1], the total population of Central Java is 33.27 million, with the number of adolescents aged 10-19 years of 5.8 million or 5.7% percent of the total population. Meanwhile, the population of Magelang City in 2012 was 118,909, of which 5.9% were teenagers. With a large number of adolescents, adolescents face various problems in the life of the adolescent world.

Adolescence is a healthy period but also when individuals face a greater risk of morbidity and mortality associated with violence and sexual and reproductive health [2]. Health services can have a beneficial impact on adolescent health, by providing good information to adolescents, caring for those who are sick and reaching those in vulnerable situations [3]. However, research shows that young people face significant barriers to accessing health services, although
adolescents recognize the importance of accessing AFHS, they are less likely to utilize services because of stigma [4]. Cultural barriers include the trust and stigma of society, and the knowledge of youth, and facilitators. Structural barriers include financial costs, distance to health facilities, waiting times, and lack of supplies and medicines. Feelings of fear, shame and discomfort are barriers associated with 'accueil' while interaction with health workers is a barrier to facilitators [5]. On the other hand, health professionals tend to prioritize youth consultation less.

Youth-friendly health services (AFHS) are defined as services that are accessible, acceptable, fair, appropriate and effective. Youth-friendly healthcare workers are an important component of AFHS, and require specific competencies (describe the knowledge and skills to carry out the roles and responsibilities they need, and an assessment of whoever) and attitudes to provide evidence-based, non-judgmental and non-discriminatory care, especially with regard to sexual and reproductive health (SRH). In particular, they must be able to consider the cognitive, emotional, and social capacities of adolescents, and to understand and evaluate each adolescent as an individual at a particular development point in a unique social context [2]. In addition, health workers must have a clear understanding of their roles and responsibilities, be supported to take them out, and be responsible for doing so [3].

Although there have been several studies on the perspectives of health workers in AFHS, several studies have investigated how young people desire the health services provided by health workers to adolescents [1]. There is extensive evidence showing that the performance of health workers in low- and middle-income countries is often inadequate [6]. Moreover, despite the acknowledgment of the important role of health workers in the provision of AFHS, there is little evidence synthesized on the role of health workers that comply with standards in providing youth friendly services (AFHS) especially in Primary Health Care Service (PHCs). Therefore, this study seeks to explore how the experiences of health workers in implementing adolescent care health services at PHCs.

2 Method

A fenomenology qualitative study was conducted between September and October 2015 in Magelang, Central Java, Indonesia. The study protocol was approved by the Ethics Committee of Universitas Muhammadiyah Magelang. Four health worker, one doctor and one public health expert from the health department because of their experience and knowledge of providing AFHS. The participants were selected through purposive sampling from five purposively selected Primary Health-Care Centers in Magelang City. Purposive sampling was used because there are only four Primary Health Center. Semi-structured interviews and observation, were conducted with all participant, which were conducted in Indonesia, after consent was obtained. The recorded interviews were transcribed verbatim and analyzed thematically (Braun & Clarke, 2006). This included familiarization by reading and re-reading the transcriptions, generating initial codes, generating, defining and reviewing themes, and finalizing the analysis. Rigour was applied through credibility, dependability and transferability (Guba, 1981). The principal researcher developed the initial codes which were then discussed with the research supervisor to reach a consensus. A list of codes and their definitions was compiled which were revised as coding proceeded and new codes included. The codes were reviewed for patterns and developed into themes to address the study objectives. Both
researchers discussed the themes to reach consensus and their coherence in representing the data.

3 Results and Discussion

Magelang City was chosen to be the research site because all PHCs have been running the PKPR program since 2011, apart from that all PHCs in Magelang City are in the process of becoming a Regional Public Service Agency so that services to the community are better. The number of main PHCs in Magelang City is 5 units and 11 small units.

3.1 Participants’ characteristics

The participants included five females and one male. They were married and all of them were Muslims (Table 1).

<table>
<thead>
<tr>
<th>Location</th>
<th>Age</th>
<th>Sex</th>
<th>Profession</th>
<th>Marital Status</th>
</tr>
</thead>
<tbody>
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<td>Nurse</td>
<td>Married</td>
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<tr>
<td>Health Facility B</td>
<td>36</td>
<td>Female</td>
<td>Nurse</td>
<td>Married</td>
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<td>Health Facility C</td>
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<td>Health Facility D</td>
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<td>Married</td>
</tr>
<tr>
<td>Health Facility E</td>
<td>53</td>
<td>Male</td>
<td>Doctor</td>
<td>Married</td>
</tr>
<tr>
<td>Public Health Office</td>
<td>49</td>
<td>Female</td>
<td>Public Health</td>
<td>Married</td>
</tr>
</tbody>
</table>

Table 1. Characteristics of key informants

3.2 Internal barrier to implementing AFHS

The first obstacles in implementing AFHS are internal constraints, limited personnel with limited knowledge, capabilities and time as youth service officers, to implement and report on programs. Internal obstacle in the form of limited human resources are felt by all participants, only one program holder is the program implementer of these activities, while the health worker also holds other program activities.

"Regarding the service, there are limited health personnel and we have submitted it but have not submitted it, and program holders do not focus on youth programs, because there are other programs that are held, so they are also constrained by reporting" (Participant 6, 49 years).

"Our working time is up to 2 in the afternoon, if the activities in SMP 4 are late in the afternoon, it is more than working hours, especially if we go to Karangtaruna it has to be at 9 pm, we cannot afford the time" (Participant 3, 33 years old).

3.3 External barrier’s

While the second obstacle is external obstacles to the implementation of AFHS, i.e. limited operational funds because funds are only from health operational costs (BOK), lack of cross-program and sector cooperation, inadequate service facilities for adolescents. External obstacles in the form of limited operational funds became the main problem for all participants, the existing funds came from health operational funds amounting to 40% which could be used for AFHS activities along with other activities.
"Yes, that's what is clear from the office, for funding there is BOK (health operational costs). If the activity is in the afternoon, it is more than working hours, so the funds used for transport run out." (Participant 1, age 35 years)

"Infrastructure is not very supportive because of limited funds, small funds. if that is not covered by the agency sometimes running the puskesmas. With BOK funds, both from APBD1, APBD 2, sometimes from the center as well but not always "(Participant 6, 49 years old).

"For example, there is no health operational cost fund, I must still be able to run it, there is only BOK funds, it is not only for adolescents, but all programs, and those adolescents also do not enter the MDGs" (Participant 3, age 33).

External obstacles are in the form of a lack of cooperation between programs and sectors, some of them have implemented it due to a shortage of health workers, but there is absolutely no cross-sector cooperation.

"For example, if I have a program here, just cross-program in the health center, for example I need information on HIV AIDS or drugs, then I coordinate with them, or or with midwives for reproductive health but if it has not been implemented cross-sectoral" (Participant 2, age 36).

"There is a program from the BKKBN called PIK or something but it seems that there is no collaboration yet, for now our activities are only cross-program" (Participant 4, 35 years old).

External obstacles in the form of inadequate service facilities for teenagers, the available rooms do not meet the criteria for youth-friendly services, some even do not have special rooms, so along with standard general care rooms

"If there are students who have problems, they should be invited to meet them somewhere, because the rooms are standard care, not for teenagers. Sometimes teenagers come but don't come back because they are ashamed "(Participant 1, age 35)

"If we do all the counseling, we also do the inspection activities. But the obstacle is the inadequate infrastructure" (Participant 3, 33 years old)

"The existing room used to be a breast milk counseling room and it was changed for AFHS. If there are teenagers who are put in a room, they become afraid because they are afraid of what the health workers will do "(Participant 4, age 35).

3.4 Hope for the implementation of AFHS in the future

The hope of implementing AFHS includes an increase in the budget, the type of service is focused on youth counseling, forming a special team of experts, services are carried out in schools and outside schools, service facilities are adjusted to the needs of adolescents, the need to use multimedia in health promotion, cross-program and sectoral involvement in implementation and monitoring and evaluation so as to produce policies that favor youth.

The hope of the first implementation of AFHS is an increase in the costs allocated specifically for the AFHS program from any fund.

"From the technical guidelines for health operational assistance, 60% of the funds are for activities that support the MDGs, 40% for other development, so that large amounts must be exchanged for AFHS activities because of their developmental nature" (Participant 5, age 53).

"The important thing is that our program runs, the important thing is to help youth, thankfully there is more funds so that the program can be maximized" (Participant 4, age 35).

It is hoped that the implementation of AFHS should focus on youth counseling services, inside and outside schools with the use of multimedia in the form of social media or other media.

"If our activities we give counseling, if we want to put more emphasis on adolescents, yes, we give more counseling and it can be done at school and outside of school with SMS or other social media" (Participant 3, age 33 years)
"In my opinion, we have to be friends for them so that I can get in, in providing counseling, so we focus on counseling, trying not to patronize, and not ordering, implementation can be done in schools and in the academy, for example with various technologies that exist today" (Participant 2, age 36 years).

The hope of implementing AFHS is that there is cross-program involvement and monitoring and evaluation from the local health office.

"For the youth program holder, there is only one person, but when doing so it must be together with other programs, not stand alone but integrated with other programs, all programs must be evaluated and the tone of the follow-up plan from the agency", 53 years old).

"As much as possible do not be alone, involve cross-programs within the puskesmas, so we see each activity like that, not only AFHS and others, there must be cross-programs, monitoring and evaluation needs to be done, not just a report on paper, so we know what the obstacles are and given joint solutions "(Participant 6, age 49).

3.5 Discussion

The results of research on the experience of health workers in implementing AFHS are perceived as an obstacle and hope. They have felt the obstacles from the implementation of the program while interacting with teenagers. These obstacles originate from themselves and are felt from outside themselves. Meanwhile, the participants described the hopes of implementing the AFHS program as a dream for the future in an ideal AFHS program.

To overcome obstacles related to limited human resources, what can be done is to conduct service training for adolescents. Training of health workers is one of the most commonly used interventions to improve health worker performance. It is also one of the most effective interventions for doing so, as determined by the health-care provider performance review. However, evidence clearly suggests that certain types of trainings do not substantially or sustainably improve the competencies or attitudes of healthworkers. Careful consideration must be given to the training methodologies, preparation of trainers, location, duration, and group size and composition [3].

In addition, increasing health personnel resources can be overcome by collaborating across programs within one PHCs. In implementing the AFHS program there is a process of introduction, development and preservation of AFHS that takes place in the long term, and requires creative team effort and collaboration between donors, public agencies and health providers. External motivation and support is essential to initiate and sustain the implementation of AFHS. The transformation of health facilities into AFHS is associated with the broader organization of the country's health systems, and the evolution of national youth health policies [7]. In addition, the facilitating factors needed for youth-friendly health services are (1) commitment and priority of health service providers to youth-friendly health services; (2) organizational support; (3) appropriate clinical settings; and (4) external support for youth health promotion activities [6].

One of the needs for health service transformation is to provide facilities that meet the criteria in youth care services. Availability of trained health care providers, adequate privacy, dedicated youth health care team, and adolescent health promotion activities were clinical characteristics that were significantly (p <0.05) associated with the adolescent friendliness score in the clinic [6]. Apart from facilities, what needs to be developed is the counseling ability of health workers, because in their teens they need to be heard not to be given lectures. The health workers implementing AFHS at PHCs should take a complementary role to replace parents who do not have the skills to guide their adolescents towards responsible sexual behavior. Programs
need to be developed to enable nurses to optimize their relationships with adolescents and provide services through a mobile health care unit to adolescents with which they regularly socialize. In addition, the use of social media as a communication link must be developed by health workers implementing the AFHS program. Programs need to be developed to enable health workers to optimize their relationships with adolescents and provide services through a mobile health care unit to adolescents with which they regularly socialize. Management should provide a budget for nurses to use multimedia to interact with adolescents. [8]

Funding is important in implementing the AFHS program, because with sufficient funds it will support the achievement of programs in AFHS, limited funds make AFHS not a program in the main priority scale. Limited priority of youth centers by stakeholders and uncertain funding also exacerbates inequality by weakening the health care system. Meanwhile, inadequate medical supplies and medicines, shortages of health workers at the closest health facilities and a weak referral system prevent adolescents from enjoying the maximum health benefits, thus damaging youth welfare or generosity. Inadequate supplies of drugs and drugs and the unavailability of youth-friendly health services at the nearest health facilities not only impact the principles of social justice and generosity ethics but also threaten the privacy, freedom and confidentiality of adolescents and autonomy in health services [9]. In the end, listening to and trying to understand the perspectives of health workers in implementing the AFHS program through their long experience in running the program can help achieve all mandatory programs and will increase youth access to be willing to provide services at PHCs that implement the AFHS program.

4 Conclusion

Health workers in Magelang City face considerable related barriers to implementation the AFHS programs, with internal barriers (limited and multi programmed implementing personnel, limited knowledge and capabilities as youth service officers, limited time implementing and reporting programs) and external barriers to AFHS implementation (limited funding, lack of cooperation in programs and sectors, inadequate facilities for adolescents). This paper highlights the need for cross-program and sectoral involvement in implementation and monitoring resulting in policies that favor teenagers. It also emphasizes the need for the provision for increasing budget, services focused on youth counseling, forming a special team of experts, services performed inside and outside the school, service facilities tailored the needs of adolescents, using multimedia in education. Further studies are needed to explore contextual strategies that can create more supportive intersectoral for AFHS to address the limitations. The findings of the current study recommend context specific interventions in Magelang and advocate for policy and legislative direction to improve adolescent access to AFHS services and support healthcare workers in meeting the AFHS needs of adolescents.

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References


Halal Tourism in the Perspective of Indonesian Muslim Scholars: A Case Study in Magelang Regency

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Abstract. The issue of halal is an important requirement for a Muslim, including tourism. In Indonesia, there has been a discourse on halal tourism recently, because of the needs of the Muslim community who are known as the majority of the population in Indonesia. Therefore, this study tries to look at the perspectives of Indonesian Moslem scholars regarding this issue. This research is a descriptive-qualitative field research. The research method uses in-depth interviews to see their views on the issue. From the results of the research, it was found that 55.6% of the scholars agreed with the regulation of halal tourism, because this would improve the economy of the people (55.6%) and was the guidance of Islamic law (55.6%). When asked about matters related to halal tourism, the scholars revealed 3 things, namely tourist destinations, culinary spots, and lodging (hotels). Regarding the Borobudur temple, the scholars disagree (44.4%) on making it as a halal tourist destination, because the place does not belong to Muslims, but is a legacy of Buddhist civilization.

Keywords: Halal tourism, Indonesian ulama, Islamic law

1 Introduction

Every human being who has a belief and a religion will find a foundation in his life with what is his religious belief. Likewise, a Muslim will base all aspects of his life on his religion. In the life dimension of a Muslim, a very basic issue is understanding what is allowed and what is prohibited. Therefore, the issue of halal and haram is an important issue in the life of Muslims wherever they are.

Tourism is actually a part of human culture. So that human life cannot be separated from tourism. Human mobility due to tourism has improved the economic life of the community, thus having an impact on welfare. Halal tourism is a tourism business that is in line with sharia regulations, which are expected to attract tourists to visit. It's just that, as Indonesia as the largest Muslim country in the world, the development of halal tourism has not shown significant progress. Based on data from 2018, the main tourist destinations for Muslims are Turkey, United Arab Emirates (UAE), France, Russia, and Malaysia [1]. And Indonesia, as the country with the largest Muslim population, has not become the main destination for visits by world Muslim tourists. Even though all the tourism potential of this nation is very rich and diverse. Therefore, structured, well-planned strategies and policies are very important for tourism development.
Ulama as the front guard in understanding Islam have an important role in encouraging good policies for the development of the ummah, including the economy-tourism and the halal cultural values of society. In this study, the author tries to see about the perspectives of the scholars who are members of the Indonesian Ulama Council of Magelang Regency regarding halal tourism policy. The research results are expected to contribute to the development of halal tourism in Indonesia, especially the Magelang region.

2 Method

This research is a descriptive qualitative analysis. The data collection method used in-depth interviews. The object of research is the perspective of the ulama who are members of the Indonesian Ulama Council, Magelang Regency. So that the research subjects are scholars at the institution. To analyze the data, researchers used the deductive-inductive method. In order to comprehensively understand the thoughts and opinions of the scholars, the researcher uses the theory of discourse analysis, so that the opinions and thoughts of the scholars can be known in the context of the constellation of debate about halal tourism that resonates in Indonesia today.

3 Results and Discussion

3.1 Results

The Indonesian Ulema Council (MUI) of Magelang Regency is part of the Indonesian Ulema Council at the Center, in Jakarta. The management of the MUI from the central to regional levels reflects the elements of representation of various Islamic community organizations in Indonesia. Usually, representatives of NU and Muhammadiyah are the dominant organizational part of the MUI management structure. This is because these two organizations are the largest organizations in Indonesia, so they dominate this organization. MUI was formed in 1975, with its first chairman being Prof. DR Buya Hamka. [2] The establishment of MUI in various regions was actually earlier than the formation of the central MUI, even the formation of the central MUI was the result of the declarations of 26 regional MUI representatives at that time [2]. The contribution of MUI in the religious context in Indonesia from time to time continues to increase, even the fatwas issued have an impact on social and political life. Therefore, the opinions of the MUI on various matters in relation to Islamic religious life have an important meaning in the context of the Indonesian nationality.

In the regional context, the role of MUI is institutionalized in the regional MUI management. In Magelang district, the management of MUI is also from various elements of Islamic mass organizations which are reflected in the MUI organizational structure. MUI Magelang Regency has several parts of the organizational structure, namely the daily board, the fatwa commission, the Education and Da’wah commission, the commission for empowering families and children, the anti-alcohol and drug movement (GANAS-ANAR), and the Muallaf center. In 2020-2024, there are around 30 administrators of MUI Magelang Regency. In this study, from about 30 MUI administrators in Magelang regency, there were about 9 people who could be interviewed regarding the issue of halal tourism [10].

In this study, there were four questions asked of the scholars regarding the issue of halal tourism. The four questions are as follows, namely: Is halal tourism included in the guidance of
sharia? Why do you need regulations related to halal tourism? If Borobudur is used as a halal tourist destination? and are there any benefits in developing halal tourism?

Related to the idea of halal tourism. The researcher asked the scholars a question, namely, does halal tourism have Sharia guidance? Answering this question, which all scholars express that the idea of halal tourism has a footing in the Sharia. Of that total, of which 55.6% of respondents stated agreed, while 44.4% strongly agreed. From this statement, it provides an explanation that in Islamic law there are guidelines related to the development of halal tourism. Even the scholars stated that the scope of halal tourism is not only limited to tourist attractions, but also related to culinary and lodging.

Regarding regulations related to halal tourism, 44.4% of the scholars thought that regulation was necessary, while 55.6% stated that regulation was needed. With the existence of regulations, the development of halal tourism can be planned and carried out properly by the government. Without regulations, the development of halal tourism is only random, people are only groping without a definite direction. So that the development of halal tourism does not provide certainty of significant results and impacts. Therefore, policies that are set forth in the form of regulations both from the central and regional levels, can provide clear directions for both the government and the community in developing halal tourism.

Regarding Borobudur being used as a halal tourist destination, the scholars have a variety of opinions, 33.3% agree, 22.2% strongly agree, 33.3% say neutrality, and 11.1% disagree. The plurality of opinions is because Borobudur is a relic of Buddhist civilization. And the scholars who agree and strongly agree, actually do not see the site being used as a tourist destination, but the surrounding communities who have been involved in preserving this cultural heritage are Muslims. Thus, businesses that grow around sites managed by Muslims are developed to become centers of halal tourist destinations, both regarding culinary businesses, lodging (hotels), and others. Meanwhile, those who have a neutral opinion and disagree (44.4%) regarding Borobudur being made a halal tourist destination, they are of the opinion that Borobudur temple is a cultural heritage and a place of Buddhist worship. Therefore, Borobudur should not be used as a halal tourist destination. Because the term halal is very Islamic, so it should not be associated with other religious sites outside of Islam. It's just that scholars who have a neutral and disagreeable opinion have the same opinion regarding the development of halal tourism that is outside the temple sites managed by Muslims.

And regarding the benefits of developing halal tourism, 55.6% of the scholars think that they are very supportive and strongly agree that the development of halal tourism will provide an increase in economic welfare for the Muslim community. Meanwhile, 22.2% stated that the development of halal tourism does not necessarily increase the economic welfare of the community. Increasing economic welfare is related to good management so that it attracts interest and attracts tourists to tourist sites. If the development of halal tourism increases the capacity of the community to be able to develop and attract tourists because of its uniqueness and excellence, it will have an impact on the community's economy.

3.2 Discussion

3.2.1 Halal tourism concept

The term halal tourism is actually a relatively new term in the context of tourism. The term halal was originally used in the context of the food industry, then this term is used for tourism whose purpose is to provide service facilities for Muslim tourists in accordance with the guidelines and teachings of Islamic law [1]. Yhe idea of halal tourism was triggered by Islamic
conference countries with various terms, namely halal travel, Islamic Tourism, Muslim friendly tourism, halal hospitality [1]. In the Indonesian context, halal tourism is elaborated in terms of sharia tourism. Halal tourism places religious values as the basis for developing tourism services. According to Lubis, sharia tourism is an activity that is supported by various facilities and services provided by the community, businessmen, government and local governments that comply with sharia provisions [3].

Halal tourism can be developed in four areas, namely location, by combining Islamic values in tourist locations; second, travel services with the expectation of a travel standard that is friendly to the Shari'a, such as non-ikhtilath, travel by paying attention to prayer times; third, culinary with respect to halal food standards for tourists; fourth, lodging, all services and facilities by implementing sharia hotel standards [4]. Meanwhile, Satriana and Faridah put forward 14 main principles or requirements for halal tourism, namely: 1) Halal food; 2) No liquor (containing alcohol); 3) Not serving pork products; 4) There is no discotheque; 5) Male staff for male guests, and female staff for female guests; 6) Suitable entertainment; 7) Facilities for gender-separated prayer rooms (mosques or mushalla); 8) Islamic clothing for staff uniforms; 9) Availability of Al-Quran and prayer equipment in the room; 10) Qibla directions; 11) Art that does not describe the human form; 12) The toilet is positioned not facing the Qibla; 13) Islamic finance; and 14) Hotels or other tourism companies must follow the principles of zakat [5].

3.2.2 Halal tourism regulations

Until now, regulations regarding halal tourism business activities are still unclear. At the national level, the ministry once issued several regulations on halal tourism, but these were later repealed. In 2014, for example, the Ministry of Tourism and Creative Economy issued Ministerial Regulation Number 2 of 2014 concerning Guidelines for Implementing Sharia Hotel Businesses. However, in 2016, Ministerial Regulation No. 2/2014 concerning Guidelines for the Implementation of Sharia Hotel Businesses is revoked by the Minister of Tourism Regulation No.11 of 2016 because it is deemed no longer in accordance with the demands and developments of tourism today. In addition, the Minister of Tourism has also issued Regulation Number 1 of 2016 concerning the Implementation of Tourism Business Certification. This regulation regulates halal tourism business certification. However, the article regarding halal tourism business certification in this regulation was also revoked with the issuance of the Minister of Tourism of the Republic of Indonesia Regulation Number 12 of 2016 concerning Amendments to the Regulation of the Minister of Tourism Number 1 of 2016 concerning the Implementation of Tourism Business Certification.

With the revocation of several Ministerial regulations above, there are practically no more regulations governing halal tourism. And with the repeal of several existing regulations, it seems that the central government is still ambiguous in developing halal tourism in Indonesia. Halal Tourism Arrangements can be made in the form of regional regulations (Perda) or Governor Regulations (Pergub), it seems like this is the case in West Nusa Tenggara (NTB), [6] but it can only be done for local governments that are concerned about halal tourism and these regulations only local in nature so that it cannot be used as a national reference.

In 2016, the National Sharia Council-Indonesian Ulema Council (DSN-MUI) issued Fatwa Number 108 / DSN-MUI / X / 2016 concerning Guidelines for Implementation of Tourism Based on Sharia. The tourism aspects that are regulated in it include: hotels, spas, saunas and massages, tourist attractions, and travel agencies. This fatwa from the DSN-MUI will have no impact, if it is not implemented by the government in the form of laws and other regulations.
Therefore, if the government has the will to develop halal tourism, then the government must have a clear policy as outlined in this set of rules governing halal tourism. So, halal tourism in Indonesia will experience an increase and acceleration.

3.2.3 Borobudur as a halal tourist destination?

Regarding Borobudur to be developed as a halal tourist destination, in fact until now there has not been any policy from the government, either the regional government or the central government. Likewise, the people in the area around the Borobudur Temple have also not had any discourses and initiatives for the development of halal tourism in the area.

The development of halal tourism is not only related to the location of the main destination, but also to other things outside of it, such as culinary, lodging, and travel services. Regarding Borobudur, as a halal tourist destination, it is theologically impossible, because Borobudur is a cultural heritage of Buddhism, and is still used for the annual celebration of Indonesian Buddhists and even the world. In this context, the scholars are aware and highly respect that Borobudur temple is an important part of Buddhist life, even though culturally it has become an important part of the Indonesian heritage. Therefore, the development of halal tourism can be carried out in three main contexts, namely culinary, lodging, and travel services (transportation). And these three sectors, generally those who are working on it are Muslims. Lodging and culinary around the Borobudur area are Muslims. And in the context of tourist visits, generally tourists who come to visit Borobudur are Muslims from various regions in Indonesia. Therefore, culinary, lodging and transportation needs are actually related to the people who visit, if they are provided with services in accordance with the rules of the Sharia, it will have an impact on satisfaction and also peace of mind.

3.2.4 Halal tourism benefits

Indonesia is known as the largest Muslim-majority country in the world. Regarding the development of halal tourism, Indonesia should be able to become the main destination for world halal tourism destinations. Unfortunately the development of halal tourism in Indonesia is still far behind compared to other Islamic countries, such as Turkey, Malaysia, and United Arab Emirates (UAE) [1]. So that these three countries become the world's main halal tourist destinations today. And these three countries get the usual benefits from tourist visits from various countries from the Middle East region and others. Economically and in terms of income, these three countries have benefited from developing their halal tourism, so that they can attract tourists to their countries.

In the Indonesian context, the development of halal tourism has actually started. It's just that the development is rather slow compared to other Islamic countries. Areas in Indonesia that are trying to develop halal tourism include West Nusa Tenggara, [6] West Sumatra, [7] and Aceh [8]. To date, the province of West Nusa Tenggara has been quite successful in promoting its region to foreign countries, and in attracting foreign tourists to the area [9]. Therefore, these areas can become examples for the development of halal tourism in Indonesia. For the context of Magelang, the development of halal tourism has strategic opportunities, because Magelang has interesting tourist attractions besides Borobudur temple.
4 Conclusion

From the above discussion, it can be concluded that halal tourism in Sharia is indeed guided. In the context of halal tourism, there are four things that need to be developed, namely tourist attractions as the main destination, culinary, namely services for the consumption needs of tourists, lodging, namely places of rest that tourists need to unwind, and travel services (transportation). These four things, when you get a touch of sharia values, will have an impact on tourist service satisfaction, especially for Muslim tourists.

The development of Borobudur as a halal tourist destination is still unclear. The scholars have not agreed, because of respect for Buddhists who use Borobudur Temple as a place of worship and celebration. The development of halal tourism in the context of Borobudur, only in the context of tourism services such as culinary, lodging and transportation. Because these three things are related to services related to Muslims.

The scholars are of the view that halal tourism has a positive impact on improving the economy of the people. The economic benefits of halal tourism have been proven by several countries which have become the center of world halal tourism destinations. Until now, the direction of halal tourism policy in Indonesia has not been clear, it's just that several areas are trying to develop such as West Nusa Tenggara, West Sumatra and Aceh.

Acknowledgement

The author especially thanks to the Rector of Universitas Muhammadiyah Magelang, the committee of the 2nd Borobudur International Symposium, reviewers and proofreaders, who help and support to publish this article.

References

Analysis the Determinants of Stock Price: An Empirical Study of Indonesian Commercial Banks

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Abstract. The stock price is the price of a share that occurs on the stock exchange at a particular time, determined by market participants based on the level of demand and supply. Erratic prices present challenges and opportunities to invest, especially during this pandemic era. Precise analysis of stock prices will provide opportunities for investors to get high returns. This study investigates the external factors that influence stock prices in the banking sector in Indonesia. The data analysis method used is the regression analysis and paired test method. This study's sample consisted of 37 commercial banks listed on the Indonesia Stock Exchange (IDX) from 2019-2020. The number of data observations using purposive sampling is 444 samples. The results reveal that inflation, economic growth, and the money supply have no impact on stock prices. Meanwhile, the rupiah exchange rate and interest rates have a positive impact on stock prices. The results also find that there are differences in stock prices before and during the Covid-19 pandemic. Exciting research results and contributions are also discussed.

Keywords: Stock price; commercial bank; covid-19 pandemic; macroeconomic

1 Introduction

Nowadays, coronavirus created enormous volatility in the global stock market, leading to a downward trend in the overall stock position. This was caused by the high panic experienced by the community due to the Covid-19 pandemic outbreak. The panic caused an adverse reaction to the stock market, which is very sensitive to people's expectations [1]. The Indonesian capital market experienced a drastic decline due to the Covid-19 pandemic. Prior to confirmation of the first COVID-19 in Indonesia, the Composite Stock Price Index (IHSG) was at the level of 6,244 (24 January 2020), weakened to 5,942 (20 February 2020) and was corrected again to the level of 5,361 (2 March 2020). When the WHO declared a pandemic on 12 March 2020, the IHSG fell 4.2 percent to 4,937 when Thursday's session opened. This level is the lowest in almost four years. On 13 March 2020, stock trading was halted for the first time since 2008 due to the Covid-19 pandemic [2].

Prior research has investigated the Covid-19 pandemic and its effect on stock prices. Covid-19 harms company performance in China [3]. In the stock market sector, stock return prediction posits by health news [4], the effect of covid-19 outbreaks on stock markets in various countries [5]; the stock market in different sectors [6] and the difference in Composite Stock Prices Index before and during covid [2]; [7]; [8]; [9]. External factors (i.e., interest rates, money supply, inflation, exchange rates, and economic conditions) also play an essential role in determining stock prices. Changes that occur in external factors will be a fast response by the market, creates
a high potential risk in investment. However, little research focuses on investigating the influence of external factors on stock prices, especially in the covid-19 pandemic era. Pandemic distorts the positive relationship between inflation and stock market returns [10].

This study focuses on investigating external factors that affect stock prices on Indonesian commercial banks. Banking is one of the key industrial sectors contributing to the Composite Stock Price Index (IHSG) value in the Indonesia Stock Exchange. The existence of banking becomes the driving force for economic activity. The presence of banking as the intermediary financial institution, especially during a covid-19 pandemic, is crucial. Since the coronavirus outbreak, banks have limited the amount of credit distribution but still have to pay remuneration to savings customers. Therefore, banks have to minimize defaults by creditors. On the other hand, government policies, i.e., social distancing and PSBB (large-scale social restrictions), have made most business actors unable to carry out their business activities. This increases the potential for default on loans, which affects the decline in banking performance. The research refers to the prior study [11], which examines the inflation variable, the rupiah exchange rate, interest rates, and economic growth. This research adds the money supply variable. The money supply is a macroeconomic factor that can affect the ups and downs of stock prices. Besides, this study analyzes the differences in stock prices before and during the Covid-19 pandemic. This study uses a sample of commercial banks listed on the Indonesia Stock Exchange for the period 2019-2020 with monthly data, namely before Covid-19 from July to December 2019 and during the Covid-19 pandemic from January to July 2020.

2 Method

This study uses a quantitative method approach using secondary data. The population in this study are commercial banks listed on the Indonesia Stock Exchange from 2019 to 2020. This study used a purposive sampling technique with several criteria, as follows: (a) commercial banks listed on the IDX during the 2019-2020 period and not delisted; and (b) commercial banks that include monthly data on closing share prices for July-December 2019 to January-June 2020. Table 1 summarizes the measurement of the variables in this study, referring to previous research [11].

<table>
<thead>
<tr>
<th>Variables</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stock price</td>
<td>Monthly closing price during the 2019-2020 period</td>
</tr>
<tr>
<td>Inflation</td>
<td>$\text{Inflation} = \frac{\text{IHK} - \text{IHK}<em>{-1}}{\text{IHK}</em>{-1}} \times 100$</td>
</tr>
<tr>
<td>Rupiah exchange rate</td>
<td>$\text{middle value} = \frac{\text{selling price} + \text{purchase price}}{2}$</td>
</tr>
<tr>
<td>Interest rate</td>
<td>The monthly closing price for SBI interest rates for the 2019-2020 observation period</td>
</tr>
<tr>
<td>Economic growth</td>
<td>$\text{Economic Growth} = \frac{\text{Gross Domestic Product (GDP)} - \text{GDP}<em>{-1}}{\text{GDP}</em>{-1}}$</td>
</tr>
<tr>
<td>Money supply</td>
<td>$\frac{\text{Money Supply} - \text{Money Supply}<em>{-1}}{\text{Money Supply}</em>{-1}}$</td>
</tr>
</tbody>
</table>

The total sample used was 37 banks with 444 observations. We use multiple linear regression to test the independent variable's effect (i.e., inflation (INF), the rupiah exchange rate...
(RER), interest rates (IR), economic growth (EG), and the money supply (MS)) on the dependent variable, stock prices (SP). We also examine differences in stock prices before and during the COVID-19 pandemic using the paired sample test with 222 observations. The regression equation model for stock prices is written as:

\[ SP = \alpha + \beta_1 INF + \beta_2 RER + \beta_3 IR + \beta_4 EG + \beta_5 MS + \epsilon \]  \hspace{1cm} (1)

3 Results and Discussion

The results of the classical assumption test suggest that the data do not experience multicollinearity, homoscedastic, autocorrelation, and normal distribution. Thus, the regression model formed is suitable to be used to solve this research problem.

3.1 Multiple regression analysis

The F test is used to assess the feasibility of this research model. The test results show that the calculated F-count is 4.382 with a probability level of 0.000 < 0.05. The F-table value is 2.27. These results indicate that F-count (4.382) > F-table (2.27), then Ha is accepted and Ho is rejected. This means that the model used is good (fit).

The hypothesis testing results are presented in Table 2 (linear regression test) and Table 3 (paired sample test) as follows.

Table 2. Regression test results

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>t-value</th>
<th>Sig.</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inflation ( \rightarrow ) SP (-)</td>
<td>-0.909</td>
<td>0.364</td>
<td>H1 not supported</td>
</tr>
<tr>
<td>Rupiah exchange rate ( \rightarrow ) SP (+)</td>
<td>2.046</td>
<td>0.042</td>
<td>H2 supported</td>
</tr>
<tr>
<td>Interest rate ( \rightarrow ) SP (-)</td>
<td>2.910</td>
<td>0.004</td>
<td>H3 not supported</td>
</tr>
<tr>
<td>Economic growth ( \rightarrow ) SP (+)</td>
<td>-0.637</td>
<td>0.525</td>
<td>H4 not supported</td>
</tr>
<tr>
<td>The money supply ( \rightarrow ) (+)</td>
<td>0.256</td>
<td>0.799</td>
<td>H5 not supported</td>
</tr>
</tbody>
</table>

Table 3. Paired Samples Test

<table>
<thead>
<tr>
<th>Pair 1</th>
<th>t-value</th>
<th>Sig.</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before Covid-During Covid</td>
<td>5.365</td>
<td>0.000</td>
<td>H6 supported</td>
</tr>
</tbody>
</table>

The regression results in Table 2 show that only one hypothesis is supported (H2). Inflation variable with t count -0.909 and a significance level of 0.364 > 0.05, the hypothesis is not accepted. This shows that inflation has no impact on stock prices. The rupiah exchange rate shows a t-count of 2.046 with a significance of 0.042 < 0.05, so the hypothesis is accepted. This means that the rupiah exchange rate has a positive effect on stock prices. The interest rate variable obtained t count 2.910 with a significance of 0.004 < 0.05, and it is concluded that the hypothesis is not accepted. However, these results indicate that the interest rate has a positive effect on stock prices. Moreover, the economic growth variable with t count -0.637 with a significance of 0.525 > 0.05, the hypothesis is not accepted. This means that economic growth has no impact on stock prices. The variable money supply with a t-count of 0.256 and a significance level of 0.799 > 0.05 concludes that the hypothesis is not accepted. Thus the money
supply has no impact on share prices. The paired sample test results in Table 3 show a significant level of $0.00 < 0.05$; that is, there is a difference in stock prices before the Covid-19 pandemic and during the Covid-19 pandemic.

3.2 Discussion

3.2.1. The effect of inflation on stock prices

The results showed that inflation has no negative impact on stock prices. High or low inflation rates have no effect on stock prices in the banking sector. During the Covid-19 pandemic, inflation that occurred in May 2020 was meager, at 0.07% month to month. This low level of inflation is caused by weakening people's purchasing power due to the coronavirus outbreak's impact. The WFH (work from home) policy resulted in a decline in the majority of the population's income, which led to lower inflation in the food and beverage sector [12]. This study is consistent with previous research [11], which proved that inflation had no impact on the IHSG.

3.2.2. The effect of rupiah exchange rate on stock prices

The test results show that the rupiah exchange rate has a positive impact on stock prices. It means that if the exchange rate increases, the stock price will increase, and vice versa if the exchange rate decreases, the stock price will decrease. If the rupiah exchange rate strengthens, economic conditions increase, and the capital market also increases rising stock prices. The rupiah exchange rate will have an impact on the stock returns that investors get. When the rupiah strengthens, investors will invest because the resulting return is high. During this pandemic period, the rupiah exchange rate weakened so that the resulting return decreased, which resulted in changes in stock prices. This study's result is consistent with prior studies [13], which indicate that the rupiah exchange rate positively affects company stock prices food and beverage sector in the covid-19 pandemic era.

3.2.3. The effect of interest rate on stock prices

The results showed that the interest rate, as measured by the BI Rate, positively impacts stock prices. This result is different from the hypothesis proposed; the interest rate has a negative impact on stock prices. This research indicates an increase in stock prices when interest rates rise, and when interest rates fall, share prices also decline. Interest rates are also determined by the existence of a supply or demand for money. During this pandemic, BI issued a policy of lowering interest rates to maintain economic stability. However, the impact of the Covid-19 pandemic has resulted in individuals being more inclined to invest in savings and deposits even though the returns have decreased compared to investing in the stock capital market. Expectations for banking performance are still low despite falling lending rates. The decline in credit interest rates did not increase credit demand in line with sluggish economic growth [14].

3.2.4. The effect of economic growth on stock prices

The results of this study indicate that economic growth has no positive impact on stock prices. This suggests that an increase or decrease in economic growth does not affect stock prices. GDP (Gross Domestic Product) growth is a reflection of economic growth. Improved
economic growth will increase people's purchasing power. Economic growth also impacts companies with an increase in profits from increased sales [15]. Investors will make investment decisions based on the company's rate of return, namely stock dividends. When economic growth is profitable, dividends tend to increase. However, during the Covid-19 pandemic, economic growth declined, and people tended to use their money/funds to consume goods and services. Therefore, investment in the stock market is less attractive. This result indicates that economic growth has no significant effect on stock prices [15].

3.2.5. The effect of money supply on stock prices

This study shows that the money supply has no positive impact on stock prices. This indicates that an increase or decrease in the money supply does not affect stock prices. The money supply does not affect the stock price because the inflation rate's pressure is still in the low category. The outbreak of the coronavirus has caused a decline in the economic sector in all fields. The money supply has also experienced slowing growth. Some of the factors that triggered the slowdown were the decline in savings and foreign exchange and decreased productive credit distribution due to the impact of the covid-19 pandemic. This research is consistent with a prior study [16], which states that the money supply does not affect the IHSG.

3.2.6. The difference of stock prices before and during covid-19 pandemic

Different test results show that there are differences in stock prices before and during the Covid-19 pandemic. This indicates that there has been a change in stock prices from 2019 to 2020. The data obtained reveal that the stock price before the pandemic had a higher price than the pandemic's stock price. This means that share prices during the Covid-19 pandemic experienced a significant decline in stock prices due to adverse market sentiment [17]. The decline in the stock price of the IHSG had an impact on banking stock prices, which experienced a decrease in share prices. At the close of the second trading session on 6 March, 2020, several banking issuers experienced a varying decline in share prices. BBRI shares closed down 3.37 percent to Rp4,010, BBCA contracted 3.65 percent to Rp31,000. Furthermore, BMRI shares have decreased by 4.61 percent to the price of Rp7,250. Meanwhile, BBNI fell 6.23 percent to Rp6,400, while BBTN fell 3.49 percent to Rp1,660 [16].

4 Conclusion

This study examines external factors that influence stock prices in the commercial banking sector in Indonesia. This study indicates that external factors in macroeconomics, i.e., inflation, economic growth, and the money supply, have no impact on stock prices. Meanwhile, the rupiah exchange rate and interest rates have a positive impact on banking stock prices. The pair sample t-test shows differences in stock prices before and during the Covid 19 pandemic. This study is limited to a short observation period of one year consisting of six months before the pandemic and six months during the pandemic. Future research may focus on daily data for more specific results. Besides, the sample of this study is conventional banking. Furthermore, the future study can compare it with sharia-based banking.
References


Mangrove Leaf Extract Nanogel to Reduce Labor Pain

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Abstract. This study aims to optimize mangrove leaves formed in nanogel preparations with smaller particle sizes so that the content in the preparation can have an optimal effect as a pain reliever in maternity mothers. This study used a pre post test with control group design with a sample of 60 maternity mothers divided into intervention groups and control groups. Pain measuring instruments use numeric rating scale and cortisol examination taken from saliva. Ethical clearance is given by the ethics committee of health research, Faculty of Health Science, Universitas Muhammadiyah Magelang No: 025/KEPK-FIKES/II.3.AU/F/2020. Data analysis using t test independent. The results show that pain scale before intervention in intervention group and control group (7.90±1.296;7.70±0.817). Pain scale after intervention group action and control group (6.20±1.297;8.67±0.84). There was a difference in the pain scale between the two groups (1.70±0.535; 0.9±0.759, p: 0.000). Cortisol before intervention in intervention group and control group (6.05 ; 2.97, p: 0.352). Cortisol after intervention in intervention group and control group (5.21; 2.16, p: 0.267). There was no difference in the cortisol between the two groups ( p: 0.906). So that nanogel extracts mangrove leaves effectively reducing labor pain.

Keywords: Nanogel, Acanthus ilicifolius, Labor pain

1 Introduction

Labor pain is the main problem of maternity. Most women experience pain during childbirth with moderate to severe intensity. Some studies state that by using analog scale visual pain, assessment (score 0 to 10), the average intensity of pain during childbirth for primipara and multipara mothers at 8.31±0.99 and 8.37±1.16 [1]. Heni's research (2013) showed that by using the Numeric Rating Scale (NRS), against six participants, all participants experienced pain. Three participants experienced pain on a scale of ten, two participants experienced pain on a scale of nine and one participant experienced pain scale eight [2].

Labor pain must be addressed because it affects the functional mechanisms that cause physiological stress responses. Long labor pain causes hyperventilation thus lowering CO2 levels and increasing blood pH. If the mother's CO2 level is low, then the co2 level of the fetus is also low, causing a slow deceleration of the fetus' heart rate. Pain also causes unirradiated

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uterine activity so that childbirth becomes longer which eventually threatens the life of both the mother and the fetus [3].

Various nursing measures have been taken to overcome pain during childbirth both pharmaceutical and non-pharmaceutical. Although many actions have been taken, the pain is still felt by the mother. Pharmacological action often causes adverse effects such as nausea, vomiting, restlessness, hypotension, impaired motor system, fever, urine retention, itching and so on. Patients prefer without the use of drugs because no harmful effects appear to the mother and fetus [4]. This research focuses on herbal remedies made in the form of nanogels as painkillers with mangrove raw materials. Nanoparticles have been shown to improve the bioavailability of drugs with low solubility in blood circulation [5]. The purpose of this research is to investigate the effectiveness of mangrove leaf extract nanogel to overcome labor pains.

2 Method

The design of this study was a quasi experiment with a pre post test with control group design with a sample of 60 maternity mothers divided into two groups of 30 people as an intervention group and 30 people as a control group. In the intervention group, maternity mothers measured the pain scale by a numeric rating scale and took saliva for examination of cortisol levels then smeared it with nanogel for 30 minutes. After that the maternity mother was measured again on the pain scale and took back her saliva. In the control group, the mother also measured the pain scale and took her saliva after 30 minutes measured the pain scale and took her saliva. Cortisol examination is done in Pramita Laboratory. Ethical clearance is given by the ethics committee of health research, Faculty of Health Sciences, Universitas Muhammadiyah Magelang No: 025/KEPK-FIKES/I.3.AU/F/2020. Data analysis using t test independent.

3 Results and Discussion

Data collection was conducted for two months at Muntilan Hospital, Magelang Regency. The data retrieval process started from the intervention group until it was fulfilled by 30 people and then continued by a control group of 30 people. The characteristics of respondents are contained in Table 1. The average age of 28 respondents means that respondents are in the normal age range or the group is not at risk for pregnancy between 20 to 35 years. Based on gravida status, most respondents are multipara. Most of the respondents were housewives. There were no differences in age, gravida status and employment between the two groups of respondents.
Table 1. Characteristics of respondents

<table>
<thead>
<tr>
<th>№</th>
<th>VARIABLE</th>
<th>INTERVENTION GROUP (n=30)</th>
<th>CONTROL GROUP (n=30)</th>
<th>Q</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mean</td>
<td>Sd</td>
<td>N</td>
</tr>
<tr>
<td>1</td>
<td>Age</td>
<td>28.13</td>
<td>5.69</td>
<td>27.57</td>
</tr>
<tr>
<td>2</td>
<td>Gravida Status</td>
<td>0.163</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. Primigravida</td>
<td>10</td>
<td>33.3</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>b. Multigravida</td>
<td>20</td>
<td>66.7</td>
<td>17</td>
</tr>
<tr>
<td>3</td>
<td>Occupation</td>
<td>5.32</td>
<td>2.79</td>
<td>5.48</td>
</tr>
<tr>
<td></td>
<td>a. No.</td>
<td>27</td>
<td>90</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>b. Yes</td>
<td>3</td>
<td>10</td>
<td>6</td>
</tr>
</tbody>
</table>

Bivariate analysis is used to determine whether or not there is a difference in the scale of pain before and after the action between the two groups. Table 2 shows that prior to the action the maternity mother experienced pain in the category of severe pain and there was no difference in the pain scale between the two groups.

Table 2. Differences in pain scale before and after action in both groups with NRS

<table>
<thead>
<tr>
<th>№</th>
<th>Variable</th>
<th>Intervention Group</th>
<th>Control Group</th>
<th>Q</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>I’m not going to say that</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>pain scale</td>
<td>Sd</td>
<td>pain scale</td>
</tr>
<tr>
<td>A</td>
<td>Pain before</td>
<td>7.90</td>
<td>1.296</td>
<td>7.77</td>
</tr>
<tr>
<td>B</td>
<td>Pain after</td>
<td>6.20</td>
<td>1.297</td>
<td>8.67</td>
</tr>
<tr>
<td>C</td>
<td>Difference between</td>
<td>1.70</td>
<td>0.535</td>
<td>-0.90</td>
</tr>
</tbody>
</table>

However, after the action, in the intervention group the mother experienced pain on a moderate scale and in the control group the mother still experienced pain on a heavy scale. There was a significant difference in the pain scale between the two groups. It can be concluded that mangrove leaf extract nanogel effectively reduces the pain of maternity mothers.

Another parameter used by researchers to measure pain intensity is cortisol examination taken from saliva. Normal hormone cortisol saliva levels are 1.2 – 14.7 ng/dl. The results of cortisol levels are shown in Table 3.

Table 3. Differences in cortisol levels before and after action in both groups

<table>
<thead>
<tr>
<th>№</th>
<th>Variable</th>
<th>Intervention Group</th>
<th>Control Group</th>
<th>Q</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>I’m not going to say that</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Median</td>
<td>Min-Max</td>
<td>Median</td>
</tr>
<tr>
<td>A</td>
<td>Cortisol before</td>
<td>6.05</td>
<td>1.35-42.98</td>
<td>2.97</td>
</tr>
<tr>
<td>B</td>
<td>Cortisol after</td>
<td>5.21</td>
<td>0.64-42.25</td>
<td>2.16</td>
</tr>
<tr>
<td>C</td>
<td>Differences in cortisol before and after</td>
<td>0.40</td>
<td>-14.67-4.99</td>
<td>0.23</td>
</tr>
</tbody>
</table>

*Mann whitney u test

Table 3 shows that median cortisol levels for both groups before and after the action showed normal results but there were some respondents who had more than normal cortisol levels. This can happen because cortisol will increase significantly during stressful labor conditions [6].
study did not examine the state of stress in maternity mothers, which can affect cortisol levels. Interesting data showed a decrease in cortisol levels between before and after actions in both groups, although the decrease in the intervention group was more compared to the control group. There was no difference in cortisol levels between the intervention group and the control group at the time before and after the action.

Based on phytochemical tests conducted by Heni et al. [7] mangrove leaf extract (Acanthus ilicifolius) contains flavonoids, alkaloids, tannins, saponins, and steroids. The results of the study are in line with Handayani research [8] which states that the content of mangrove leaves (Acanthus ilicifolius) are flavonoids, alkaloids, saponins, phenols, and steroids.

Alkaloids have biological activities such as antimalarial, antimicrobial, antihyperglycemic, anti-inflammatory, and pharmacological effects. Saponins serve for the maintenance of permeability of anti-cholesterol cell membranes, stimulation of hormones lutininizing release, anticancer, anti-hyperglycemic and adjuvant effects for vaccines [9]. Alkaloid Acanthus ilicifolius significantly inhibited inflammatory pain in mouse models of acetic acid induced [10]. Flavonoids are efficacious as analgesics whose mechanism of action inhibits the work of the enzyme cyclooxygenase. Inhibition of the enzyme cyclooxygenase will reduce the production of prostaglandins thereby reducing pain. Flavonoids also inhibit the degranulation of microphiles so that it inhibits the production of cytokines, free radicals, as well as enzymes that play a role in inflammation. In this test the increase in extract concentration was directly proportional to analgesic power. The greater the concentration of the extract, the greater the analgesic power obtained [11]. The content of chemical compounds in Acanthus ilicifolius serves as neuralgia, analgesics, anti-inflammatory, antioxidant, anticancer, antileukemia, antimicrobial, antifungal, antiviral, and insecticide [12].

In the examination of cortisol levels, there was no difference in cortisol levels between the intervention group and the control group before and after the application of mangrove leaf extract nanogel (Acanthus ilicifolius). The results of this study are different from some concepts that state that hormone cortisol will increase during stress and pain. The hormone cortisol is referred to as a stress hormone, since it will be produced more when the body is stressed, which can be affected by infectious conditions, injuries, sedentoning activities, as well as physical and emotional stress. When you feel threatened, part of the brain will set off a body alarm. It will then trigger the adrenal glands that are above the kidneys secrete the hormone adrenaline, this is simultaneously with the hormone cortisol. The hormone adrenaline will increase heart rate, while the hormone cortisol known as stress hormone will increase sugar in the bloodstream, so the brain can work more effectively. Under normal conditions, the highest levels of the hormone cortisol reach a peak at 8 a.m. and will decrease further. The lowest level of the hormone cortisol is at bedtime [13]. Cortisol levels increase during pregnancy and continue to increase in line with the delivery process. These physiological changes are a necessity to maintain the well-being of the mother/fetus and encourage the development of normal childbirth [15].

However, the results of this study are in line with Asadi et research. al (2015) which states there is no difference in cortisol hormone in the group of maternity mothers who performed acupuncture with maternity mothers who did not do acupuncture to overcome the pain of childbirth. In Asadi's research, the action of reducing pain with acupuncture while in this study with mangrove leaf extract nanogel. Acupuncture will increase endorphin secretion or comfort hormone, while mangrove leaf extract nanogel contains flavonoids that inhibit the production of prostaglandins so that the pain is reduced. After applying nanogel, serum cortisol levels decreased although not significantly. Cortisol levels are still within normal limits although some have increased. Pain, anxiety, and stress during childbirth can lead to increased release of catecholamines and cortisol into circulation. Elevated cortisol levels can cause decreased uterine
blood flow and inhibited uterine contractions [6]. If not resolved, it will cause old partus which is one of the causes of maternal and infant death in Indonesia.

In the control group that is not smeared with mangrove leaf extract nanogels also decreased slightly. This condition can occur because cortisol levels are affected by several things, including stress and sleep disorders. If the maternity mother does not experience stress, then cortisol levels will also not increase. In addition, cortisol levels will also rise when sleep quality is lacking [16]. While in this study also did not examine the sleep quality of respondents. So that maternity mothers if experiencing pain but can be controlled is not accompanied by anxiety and impaired sleep quality, then cortisol will decrease, this is the limitation of this study. Further research should identify problems with stress levels and quality of maternity mothers that can affect cortisol levels.

4 Conclusion

Mangrove leaf extract nanogel (acanthus ilicifolius) is proven to be effective in overcoming labor pains without causing side effects. Researchers hope that nanogels can be used in maternity services as an effort to improve service facilities to patients.

Acknowledgment

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References


Work Fatigue and the Menstrual Cycle of Female Workers in the Formal Sector in Magelang

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Abstract. Work fatigue effect from heavy activity can cause hypothalamus dysfunction which can cause trouble on GnRH secretion. It can also make the menstrual cycle dysfunctional. The aim of this research is to know the correlation between work fatigue and menstrual cycle. Method that is used in this research is quantitative survey with cross sectional and questionnaires in instruments research. Samples are women workers of the formal sector in PT. Anugrah Abadi Magelang and PT. Djohartex Magelang, which includes in inclusion criteria’s that are 103 peoples. Data processed with Spearman statistic test and resulted in p=0.001 and r=0.384, and which is a correlation between work fatigue and menstrual cycle on women workers of the formal sector in Magelang 2020 with positivity valent and medium relativity.

Keywords: Work fatigue, Menstrual cycle, Female worker, Formal sector

1 Introduction

Formal workers with the female gender automatically carry a double predicate, namely as housewives and of course as full time workers. Meanwhile, residents with full employment status or those who work 35 hours or more a week have a higher risk of work fatigue than part-time workers. Work fatigue is a condition in which the body has decreased work performance and reduced energy to carry out an activity [9].

The length or period of work done, as well as excessive physical activity to achieve the target in work are the main factors in the occurrence of fatigue. Women who work as full-time workers will be at risk of experiencing reproductive health problems, one of which is menstrual cycle problems. It is stated that the influence of menstrual disorders in the form of abnormal cycles is caused by pathological conditions (one for example, Polycystic Ovarian Syndrome), unhealthy lifestyles (such as smoking, alcohol consumption), psychological conditions (such as depression and stress), and excessive physical activity (such as a long working period) [4].

Menstruation is a biological change marked by the process of desquamation of the uterine lining that occurs every month and is influenced by reproductive hormones [4]. Changes in bleeding patterns can have an impact on the quality of life of premenopausal and perimenopausal women, namely infertility problems. The irregularity of the menstrual cycle has an impact on the difficulty of getting pregnant for a woman and the difficulty in determining the fertile period. Irregular ovulation (abnormal) is responsible for 30% - 40% of all cases of infertility [23]. Apart from infertile problems with the continuous menstrual cycle can be associated with the risk of diseases such as ovarian cancer and breast cancer.
Workers are very much influenced by age, years of service and work attitudes. Ergonomically, a person's performance equals a balance between work tasks and body capabilities. With a work attitude that is not ergonomic, work fatigue will also increase. Workers who are the object of research are workers at PT. Anugerah and PT. Djohartex with the aim of studying the relationship between work fatigue and the menstrual cycle in Magelang Regency.

2 Methods

This type of research used a cross sectional study design and quantitative methods. The population in this study were female formal sector workers in Magelang regency with 103 respondents. All respondents measured the level of fatigue and menstrual cycles using the UWFI questionnaire to obtain data on work fatigue and menstrual cycle questionnaires. Data analysis was performed analytically using the Spearman rank test with a significance level of $\alpha = 0.05$.

3 Results and Discussion

Respondent characteristic of female workers in the formal sector in Magelang show in Table 1.

Table 1. Respondent characteristics of female workers in the formal sector in Magelang

<table>
<thead>
<tr>
<th>No</th>
<th>Respondent Characteristics</th>
<th>N</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>17 – 24</td>
<td>75</td>
<td>74.3</td>
</tr>
<tr>
<td></td>
<td>26 – 35</td>
<td>23</td>
<td>22.8</td>
</tr>
<tr>
<td></td>
<td>36 – 45</td>
<td>3</td>
<td>3.0</td>
</tr>
<tr>
<td>2.</td>
<td>IMT</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Normal (18.5 – 25)</td>
<td>69</td>
<td>68.3</td>
</tr>
<tr>
<td></td>
<td>Underweight (≤ 18.4)</td>
<td>18</td>
<td>17.8</td>
</tr>
<tr>
<td></td>
<td>Overweight (≥ 25.1)</td>
<td>14</td>
<td>13.9</td>
</tr>
<tr>
<td>3.</td>
<td>Marital Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Single</td>
<td>78</td>
<td>77.2</td>
</tr>
<tr>
<td></td>
<td>Married</td>
<td>21</td>
<td>20.8</td>
</tr>
<tr>
<td></td>
<td>Widow</td>
<td>2</td>
<td>2.0</td>
</tr>
<tr>
<td>4.</td>
<td>Family Planning Programs</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Not include</td>
<td>96</td>
<td>95.0</td>
</tr>
<tr>
<td></td>
<td>IUD</td>
<td>5</td>
<td>5.0</td>
</tr>
<tr>
<td>5.</td>
<td>Work Period</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt;5 Years</td>
<td>53</td>
<td>52.5</td>
</tr>
<tr>
<td></td>
<td>&lt;5 Years</td>
<td>48</td>
<td>47.5</td>
</tr>
<tr>
<td>6.</td>
<td>Work Attitude</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sit</td>
<td>64</td>
<td>63.4</td>
</tr>
<tr>
<td></td>
<td>Stand up</td>
<td>37</td>
<td>36.6</td>
</tr>
</tbody>
</table>

Table 1 it is known that of the 101 respondents, most of them were aged 17-24 years with the largest percentage (74.3%). Heavy work done in the age range (17-24), describes an increase in workload. Physical workload that exceeds the maximum oxygen intake will cause a decrease
in oxygen supply to the muscles so that anaerobic processes will occur in breaking down muscle glycogen into energy and lactic acid, resulting in work fatigue [13]. Also explained in the Journal of Developmental Medicine & Child Neurology, the effect of age and workload on work fatigue occurs because physiological functions can change due to age affect one's endurance and work capacity. The older a person is, the ability to do heavy work will decrease because they feel tired quickly which is caused by a decrease in their physiological function [7].

The distribution of female formal sector workers based on the highest BMI in this study is indicated by the normal body mass index (18.5-25), which is 68 people with a percentage of 68.3%. A woman of reproductive age with a body mass index or BMI of more than 25 can cause Polycystic Ovaries (PCO). If in normal women without PCO only one egg bag reaches the optimal size, then in women with PCO not a single egg sac has the optimal size. As a result, the eggs in it never mature and the hormonal disturbances that occur also cause the eggs not to break [20]. Women who are malnourished or underweight are generally the result of eating disorders, experience a delay in sexual maturity and put at risk of irregular menstrual cycles. In addition, the disrupted secretion of the LH hormone due to weight loss will also disrupt the cycle by causing a shortening of the luteal phase [22].

Another result shows that as many as 77.2% of female formal sector workers in Magelang District are single. Marital status is claimed to be married to be a factor in fatigue. A worker who is single will not get additional special responsibility in the form of taking care and caring for his family, where someone will be able to use time to rest longer, so as to minimize the occurrence of fatigue [2]. Married status is a burden in itself, because the responsibility is greater than someone who is not married. A married worker will tend to increase his level of fatigue. This is due to the additional physical and psychological workload at home while carrying out special obligations in terms of household affairs [13].

Other supporting data obtained also shows that most respondents do not run the family planning program (95.0%). Hormonal contraceptives contain the hormones progesterone and synthetic estrogen and only contain the hormone progesterone. A person who experiences menstrual cycle disorders due to the use of hormonal contraceptives occurs because of the influence of hormone buildup caused by the use of KB so that the function of hormones and the regulatory system for sending signals to the ovaries to produce eggs is disrupted, automatically the menstrual cycle will be disrupted [24].

Of the total respondents, most of the respondents have worked for >5 years, with a percentage of 52.5%. The condition of working long enough will affect the limit of excessive endurance due to the pressure that is generated in the work process. This is the cause of fatigue which leads to a decrease in psychological and physiological functions, both in the form of reduced muscle performance and low movement that accumulates every day over a long period [5]. The working period can affect workers with a negative effect, namely that the longer a worker works will cause fatigue and boredom, especially with monotonous and repetitive work activities that make employees feel tired and bored. The longer a person works, the greater the dangers arising from the work environment in the form of work stress where work stress can affect the menstrual cycle [15].

The majority of respondents work in a sitting position (63.4%), while the rest work with a standing work attitude (36.6%). Work attitude is a way for a person to carry out his work activities, both by standing, sitting, and how to lift weights. The mismatch between the body's position when working, especially the static position, will block the flow of blood and result in a lack of oxygen and glucose from the blood. This if it happens continuously will cause fatigue [17]. In general, women workers in the production section of textile companies are cutting, sewing, trimming, packing, temple, and computers. Sitting position while working is classified
as a work attitude that tends to be static and not ergonomic. A job that forces workers to be in a non-ergonomic work posture causes the workforce to experience fatigue more quickly and indirectly adds to the workload. Table 2 shows the distribution of work fatigue frequency of female workers.

Table 2. Distribution of work fatigue frequency of female workers

<table>
<thead>
<tr>
<th>Work Fatigue</th>
<th>N</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light</td>
<td>25</td>
<td>24.8</td>
</tr>
<tr>
<td>Moderate</td>
<td>37</td>
<td>36.6</td>
</tr>
<tr>
<td>Weight</td>
<td>37</td>
<td>36.6</td>
</tr>
<tr>
<td>Very Heavy</td>
<td>2</td>
<td>2.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>101</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Total respondents show in Table 2, most of the respondents experienced heavy and moderate work fatigue, with the percentage of both of them amounting to 36.6%. Work fatigue is defined as a change from a strong state to a weaker state [19]. The factors that trigger fatigue among female formal sector workers in the Magelang area are long working periods of > 5 years. The working period is closely related to the adaptation process and work performance, with the negative impact that is the limit of excessive body resistance due to pressure exerted during the work process [5].

The tenure is likely to lead to a feeling of boredom with the same routine over the years. A monotonous atmosphere will accumulate into boredom and affect the level of fatigue [1]. The incidence of work fatigue that arises is also triggered by the work attitude of the workers who mostly work in a sitting position (63.4%). Work attitude of workers who are static, such as slouching too long, is very risky to cause health problems due to lack of stretching and relaxation, such as blockage of blood flow and result in a lack of oxygen and glucose from the blood. This if it occurs continuously will cause fatigue [17]. Distribution of the frequency of the menstrual cycle in female workers is shown in Table 3.

Table 3. Distribution of the frequency of the menstrual cycle in female workers

<table>
<thead>
<tr>
<th>No</th>
<th>Menstrual Cycle</th>
<th>N</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Normal</td>
<td>33</td>
<td>32.7</td>
</tr>
<tr>
<td>2.</td>
<td>Un-Normal</td>
<td>53</td>
<td>52.5</td>
</tr>
<tr>
<td></td>
<td>Polimenorea</td>
<td>12</td>
<td>11.9</td>
</tr>
<tr>
<td></td>
<td>Oligomenorea</td>
<td>3</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>Secondary Amenorea</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>101</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 3 above of 101 respondents, most of the respondents experienced an abnormal menstrual cycle with a percentage of 67.3% with polimenorea cases being the most cases (52.5%) and secondary amenorrhoea being the lowest cases (3.0%). The main factor that triggers this problem in factory employees in the Magelang area is the excessive activity caused by their work activities. The higher the intensity and frequency of physical activity that is done, the more likely it is that menstrual disorders will occur [25]. It was also explained that physical activity can stimulate Gonadotropin Releasing Hormone (GnRH) inhibition, thereby reducing serum estrogen levels which can cause menstrual cycle disorders [26].
In addition to the factor of excessive physical activity, the incidence of menstrual cycle irregularities in this study was also influenced by abnormal body mass index. This is supported by the primary data obtained, that there are several people who have a BMI overweight (> 25.1). A woman who has an overweight body mass index will increase the risk of disturbances in her menstrual cycle due to a decrease in self-image in a person so that it will reduce her self-esteem. This negative self-image triggers stress, which causes disruption of a person's limbic system, which automatically disrupts a woman's reproductive hormonal system. Relationship between fatigue and the menstrual cycle shown in Table 4.

### Table 4. The Relationship between work fatigue and the menstrual cycle

<table>
<thead>
<tr>
<th>Work Fatigue</th>
<th>Menstrual Cycle</th>
<th>Total</th>
<th>R Square</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Normal Up Normal</td>
<td>N %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Light</td>
<td>17 8</td>
<td>25 24.75</td>
<td>0.384</td>
<td>0.001</td>
</tr>
<tr>
<td>Moderate</td>
<td>9 28</td>
<td>37 36.63</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weight</td>
<td>7 30</td>
<td>37 36.63</td>
<td>0.384</td>
<td>0.001</td>
</tr>
<tr>
<td>Very Heavy</td>
<td>0 2</td>
<td>2 1.98</td>
<td>0.384</td>
<td>0.001</td>
</tr>
<tr>
<td>Total</td>
<td>33 68</td>
<td>101 100.00</td>
<td>0.384</td>
<td>0.001</td>
</tr>
</tbody>
</table>

Table 4. results of bivariate analysis show that there is a relationship between work fatigue and the menstrual cycle in female formal sector workers in Magelang Regency in 2020 ($p = 0.001$; $r = 0.384$). The significance value is $0.001 < 0.05$. Work fatigue caused by physical activity is closely related to the menstrual cycle [19]. The results of this study are in line with research which states that the results of the Spearman test analysis at a significant level of 95% with ($\alpha = 0.05$), obtained $p$ value = 0.001 or $p$ value $< 0.05$ [26]. Physical activity carried out with heavy loads or excessively every day can have a negative impact on women's health. Strenuous physical activity stimulates Gonadotropin Releasing Hormone (GnRH) inhibition which can reduce serum estrogen levels so that it can disrupt the menstrual cycle. This study shows that there is a relationship between work fatigue and the menstrual cycle in female formal sector workers in Magelang Regency. This conclusion is in line with other studies based on the results of the calculation of the Chi Square test with the Yate correlation approach, namely $p = 0.008 (<0.05)$, or significant in the physical activity variable with the menstrual cycle of women of reproductive age couples [14].

### 4 Conclusion

There is a relationship between work fatigue and the menstrual cycle among female formal sector workers in Magelang Regency in 2020 which is positive with a unidirectional relationship and a moderate level of relationship. Furthermore, this research suggests that female workers in the formal sector are expected to pay more attention to their physical condition by managing their work fatigue, such as stretching between jobs and paying attention to breaks or pauses when they feel indications of work fatigue. Then, the company is expected to be able to consider worker rest periods to minimize the occurrence of work fatigue so as to increase company productivity. Further research is needed related to similar research by taking into account other influencing factors of the menstrual cycle such as psychological factors, nutrition, age of
menarche, and physical environment such as exposure to cigarette smoke which is a weakness in this study.

References


A Literature Review of Coding for Early Childhood

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Abstract. Since coding is an essential skill in the 21st century, computational thinking should be built first as its foundation. Introduction to coding can start from an early childhood and early level of elementary school. This article systematically searched for some articles about coding for early childhood. A total of nine articles discussing coding for early childhood, the tools used, and its influences on early childhood development were analyzed. These articles were selected based on year of publication, age group, and learning outcome. The results found that the introduction of coding for early childhood can be implemented through plugged-in and unplugged activities. The literature revealed that coding on early childhood development can increase cognitive ability, communication, collaboration, creativity, and executive function (planning, task completion, and inhibition decrease).

Keywords: Coding, early childhood, computational thinking, literature review

1 Introduction

Early childhood has recently been exposed to a technologically savvy environment (mobile phone, computer, refrigerator, automatically operated door, etc.). Along with the rapid growth of technology from time to time, the world of education has also utilized technology as a learning medium. For example, school-age children have currently used mobile phones and laptops to find important information for supporting the learning process or for the sake of entertainment such as playing games. However, most children only know how to use it without knowing how the program runs the devices inside. The knowledge, understanding, and skills of digital technology, such as coding literacy, will form the basis of the digital literacy practices that will be useful for children at school [1]. For these purposes, most of the current school curriculum includes computer programming activities as additional programs.

Indeed, computer programming is one of the must-have skills in the 21st century [2]. Computer programming is a list of step-by-step instructions for the computer [3]. Learning computer programming or coding can be introduced from an early age. Bers [4] stated two coding frameworks: 1) coding as a playground of an environment designed to stimulate all aspects of development and coding as literacy defined as the ability to use symbols and technological tools to understand, produce, communicate and express ideas or thoughts by creating products that can be shared. Nonetheless, there is still much unknown to educators and product developers as to what skills children will develop as they code even as computer programming for early childhood becomes increasingly popular [5]. Coding practices involve a variety of early math skills and scientific processes, including spatial ability, numeric
comprehension, problem solving skills, inquiry skills, and reasoning skills [6]. Coding practices also need the involvement of capabilities in computational thinking.

The term "computational thinking" refers to analytical processes rooted in computer disciplines and programming activities [2]. Computational thinking is divided into three computational concepts (testing & debugging), computational practice (problem solving) and computational perspective (relationship between child and digital world) [7][8]. According to Muñoz-Repiso & Caballero-González [9] there are three dimensions to measure computational thinking skills including sequences (algorithms), action-instruction correspondence and debugging. According to Piaget's Theory of Cognitive Development, computational thinking skills that can be introduced to preschoolers are pattern recognition and algorithm design [10].

The introduction of coding in early childhood and primary school education cannot be separated from the role of teacher. However, the teacher’s understanding of the introduction of coding is challenged with various obstacles including 1) the misunderstanding in the concept of computational thinking for some teachers; 2) lack of knowledge as the main challenge of teachers in teaching coding, i.e. pedagogical content knowledge and content knowledge 3) the influence of undeniable non-cognitive factors, such as anxiety, self-confidence, on the teachers’ teaching ability;4) the important role of school culture involvement [11].

The application of coding at the education level of early childhood raises a variety of questions. Therefore, this literature review study was aimed to answer the following questions:
1. How is the application of coding in early childhood education?
2. What is the impact of coding on early childhood development?

2 Method

This article collected data on coding research studies for early childhood published from 2015 to 2020. The databases used for the search included Google Scholar, EBSCOhost, SAGE Journal, ProQuest & Taylor & Francis. Keywords used to search were: “coding”, “computer program”, “computational thinking” combined with “early childhood”, “kindergarten”, “preschool”, “early years”, and “first grade”. The important thing on record is that the age of early childhood refers to the NAEYC (National association for the Education of Young Children) which is 0-8 years old. Therefore, early primary school age children who belong to early childhood are included in the search.

3 Results and Discussion

This section will review the research on coding for early childhood (2015-2020). A total of 9 research papers were selected based on the predetermined criteria. Descriptive statistics were displayed to provide a clear picture of the studies that have been collected based on the year of publication, population sample, method, technology used, and learning outcome.

3.1 Unplugged activities

The introduction of coding in early childhood through unplugged activity is an activity process without using a computer. Although coding is a relatively new term in early childhood education, children experience and use coding in their daily lives and routines with unplugged
practices (e.g., learning to tie their shoelaces by following a series of steps). Precoding or early coding is an introductory to coding activities for early childhood. Precoding activities can be done by introducing command languages, such as go up, go down, move backward and move forward, and turn right and left [12]. According to Lee [6], unplugged activity stages include the use of directional words or directional arrows (move forward, move backward, turn left, turn right), using sequential words (first, second, third, etc.), combining both directional and sequential words and connecting with grids. These stages are implemented in children’s daily activities, such as hand washing activities. The teacher’s job is to ask the child to compose the hand washing algorithm by sorting the images of the hand washing stages from start to finish on the code sheet (See Table 1).

Table 1. Result of Review on Coding Early Childhood (N=9)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Material</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year of the data</td>
<td>2015-2016</td>
<td>1</td>
</tr>
<tr>
<td>Sample population</td>
<td>Kindergarten</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>First grade</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Mix method</td>
<td>2</td>
</tr>
<tr>
<td>Method</td>
<td>Experiment</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Literature review</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>ScratchJr</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>TurtleBot</td>
<td>1</td>
</tr>
<tr>
<td>Technology used</td>
<td>Code.org</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>KIBO robotics kit</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>ScratchJr &amp; KIBO robotics kit</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Problem solving</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Cognitive abilities</td>
<td>1</td>
</tr>
<tr>
<td>Learning outcomes</td>
<td>Children’s planning and inhibition skills</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Communication, collaboration and creativity</td>
<td>1</td>
</tr>
</tbody>
</table>

Recently, robotics and computer programming have become a focus by kindergarten teachers as a method for teaching academic skills to kindergarten children through hands-on experience with new technologies [13]. Saxena el al [10] mentioned that unplugged activities to improve computational thinking skills as the basis for coding include the command through Bee-Bot (robots that can be inserted with sequential programs to execute commands), LEGO bricks (activities to learn pattern recognition, examples of orange-blue-orange-blue) and sequence series (composing in order of daily activities). Another toy tool that can be used is KIBO. KIBO is a screen-free robot kit specifically designed for children ages 4-7 years old. Children can build their own robot, program it to do what they want, and decorate it with art supplies [14]. There is also TurtleBot, which is a programmable robot by scanning cards sequentially [13]. The green card is for the forward command, the red card is for the backward command, the blue card is used to make the robot turn right, and the yellow card is used to make the robot turn left.

3.2 Plugged-in activities

Plugged-in activities are the process of introducing coding in early childhood using computers. Duncan, Bell & Tanimoto [15] classified the level of Initial Learning Environments
ILE coding for children from levels 0 to 4. The level for early age is at level of 0 (Age range of 2-7 years including drag-and-drop or simpler, teaching planning/sequence only, & requiring no abstraction) and Level 1 (Age range of 5-10 years, including drag-and-drop, & requiring no abstraction). Tools at levels 0 and 1 to introduce coding through plugged-in activities in early childhood are ScratchJr and Code.org.

ScratchJr is a learning tool to introduce the concept of computer programming to children aged 5 to 7 years [16]. ScratchJr enables children to create interactive stories and games by snapping together graphical programming blocks to make characters move, jump, dance, and sing [14]. Programming blocks are made as an interesting activity and displayed with a variety of sample colors (e.g. blue blocks to move up, down, right and left). These programs can range from very simple activities (e.g. one character increases in size) to quite complex (e.g. two or more characters interacting and chatting in dynamic settings) [5]. Another tool that can be used is code.org. Code.org is a non-profit organization that particularly aims for school students in teaching computer science [17]. Students can easily form a string of commands by clicking and then dragging blocks in code.org.

3.3 The impact of coding on early childhood development

The research conducted by Çiftci & Bildiren [18] showed that the coding course had a positive effect on the non-verbal cognitive abilities of the participating children, but the problem-solving skills were statistically insignificant. In contrast to Arfe’s results, Vardanega & Ronconi [19] stated that coding not only improved children’s ability to solve problems, but also improved executive functions (spending time for planning, solving standardized planning tasks, and inhibiting prepotent responses). In addition, the introduction of coding from an early age can support communication, collaboration, and creativity in the classroom [20].

4 Conclusion

Coding is becoming a new literacy in the 21st century that can be introduced from an early childhood and early primary school along with the current development of digital technology that has been inseparable from our surroundings. The currently rapid development of technology requires us to prepare human resources in order to be able to create these technologies. Mastery of computational thinking, problem solving skills, and gradual thinking are the capabilities that must be mastered to perform coding. In addition, there needs to be a strategy to introduce coding in early childhood through plugged-in and unplugged activities. The activity encourages early childhood and early primary schoolers to learn about coding in an interesting and fun way. Plugged-in activities that use tools on the computer include ScratchJr and Code.org. Unplugged activity refers to some activities without using a computer, including sorting images of daily activities from start to finish, getting to know directions, and playing with LEGO bricks and robots (KIBO, Bee-Bot, and TurtleBot). There are not many papers to research on coding for early childhood, but some existing papers have proven that the introduction of coding for early childhood can encourage a variety of children’s abilities, including cognitive abilities, executive function, problem solving, communication, creativity, and collaboration. On this basis, it is suggested that further research conducts some research on the effectiveness of unplugged and plugged-in activities to introduce coding to early childhood.
References


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Abstract. The low achievement of science in children should not be ignored. One of the efforts to improve the children’s science achievement is by conducting science learning through Reggio Emilia Approach with unused and recycled goods. This study aims at depicting the implementation of Reggio Emilia Approach in science learning at a kindergarten in Central Java. The instruments of this study were interview guide, observation sheet, and documentation technique. Validity and reliability test were conducted for the instruments. Descriptive qualitative was the data analysis method. The result showed that unused goods help the children develop their creativity and environmental care from an early age. However, in the teaching and learning process, the collaboration among the teachers is less optimal. In addition to that, parents need to fully support the learning process and collaborate with the teachers. In conclusion, Reggio Emilia is good for science learning but it needs some improvement in its implementation.

Keywords: Unused goods, science learning, reggio emilia

1 Introduction

Every child deserves education according to their developmental phases and needs. Since childhood is a phase of playing, the learning should be as fun as playing. ‘Learning while playing’ should be implemented for the children. Science is one of subject to teach for the children. By considering the children’s phase, the process of science learning must seem playing for them. Children usually like to observe and think about their surroundings. During this observation, the science learning can be instilled to the children. The introduction of scientific phenomena and its benefits from an early age results in a better understanding of scientific concepts. As a series of concepts and conceptual schemes, science is a series of experiments and observations that can be examined further. It is also closely related to the tracing of natural phenomena which is undergone through experiment and prediction. For early childhood, science is helpful to develop their critical thinking.

Science has various values of children’s development, including cognitive skill, affective skill, psychomotor, thinking skill and creativity, actualization and readiness for life, and religious development. So far, science learning is rarely provided for early childhood. Teachers often feel it difficult to teach science for children. The existing science learning, however, is usually still monotonous and less attractive and uses less real, easy-to-find, and self-made media. It causes less creativity of the children, which is proven in form of works made by the
children that are usually similar from one activity to another. Furthermore, children tend to imitate their friends’ work and have a limited understanding of scientific activities.

The afore-mentioned situation indicates the low achievement of science in children. This low achievement, however, should not be ignored. There are many efforts to optimize the science skill of children. Marliza [1] conducted research on improving the science skill of children through plant learning. In addition to this effort, another one was made by Roza [2] in Aisyiyah Kindergarten 29. His study reveals that the barrier to science learning is the lack of creativity of the teachers in designing the science activities. Akerblom [3] in his research entitled ‘Children’s Understanding of Representations of Basic Chemistry’. Concluded that science learning affects the children’s activities. Another research entitled ‘Attitude toward informal science in the Early Years and Development of Leisure Time in Science’, which is conducted by Panos & Gallarelo [4], proved that there is a relationship between attitude and real activities during scientific activities.

Research on science learning through the Reggio Emilia Approach in early childhood is still rarely conducted. This current study examines the implementation of Reggio Emilia Approach. This research has the potential to: a) foster children’s love for knowledge, b) cultivate the children to be critical thinkers and scientific researchers who have high curiosity, c) support the children’s ideas and creativity. By doing this research, we expect that the children are able to: a) create their own learning process, b) develop their cognitive skills, c) learn how to communicate and make relationships with peers, teachers, and parents.

This study achieves success in conducting science learning through the Reggio Emilia Approach. The media and materials used in this study are unused goods at home and at school. By doing this, it helps the children to develop their creativity and environmental care from an early age.

2 Method

This research was approached qualitatively where we proposed the solution of the problem in conducting science learning by suggesting the use of unused goods. Following the proposal of the activities to conduct, we examined the implementation of Reggio Emilia Approach by using the unused goods media. Subject of the research was class B of a Private Kindergarten in Magelang consisting of 37 students, 3 teachers and the headmaster. The detail of the implementation of teaching and learning process is explained below.

2.1 Setting of the class

Teachers should consider the layout and nuance of a class employing Reggio Emilia Approach. The class setting aims at creating a cozy and relaxing class. The environment is one of the important aspects of teaching and learning process.

2.2 Tools and Materials (ateliers)

Ateliers (tools and materials) consist of: White and dark chocolate, unused stamp pad, food coloring, soap, unused bottles, straws, clamshells, seeds, stones, unused ribbon, cotton, patchwork, sugar, vinegar, and spices.
2.3 The procedure of the science teaching and learning process must follow certain rules we described in the proposal.

Table 1 present list of ateliers used and activities that can be conducted using those ateliers in science learning for children.

<table>
<thead>
<tr>
<th>Atelier</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chocolate</td>
<td>Processes of melting</td>
</tr>
<tr>
<td>Unused stamp pad</td>
<td>Drawing flowers</td>
</tr>
<tr>
<td>Food coloring</td>
<td></td>
</tr>
<tr>
<td>Soap</td>
<td>Making foam and bubble</td>
</tr>
<tr>
<td>Unused bottles, straws</td>
<td></td>
</tr>
<tr>
<td>Clamshells</td>
<td>Letters, numbers</td>
</tr>
<tr>
<td>Seeds, stones</td>
<td>Pattern</td>
</tr>
<tr>
<td>Unused ribbon</td>
<td>Long-short concept, forming</td>
</tr>
<tr>
<td>Cotton, patchwork</td>
<td>Smooth-rough concept, forming</td>
</tr>
<tr>
<td>Sugar, vinegar, spices</td>
<td>Sniffing, taste</td>
</tr>
</tbody>
</table>

During the observation, however, other than the activities shown in the table 1, in fact, children acted and innovated based on their interest, ideas, and imagination during the activities. During the implementation of Reggio Emilia Approach, roles of children and teachers must also be determined. Below are the roles of the two.

a. Children’s roles
   - Children should be assured that they are competent and able to do many things
   - Active student
   - Continued creating
   - Test himself and his surroundings

b. Teachers’ roles
   - Becoming a learner, together with his/her students
   - A researcher of activities and student’s works.
   - Becoming a good listener
   - Observer, documenting the activities and students’ works, supporting and helping to recreate, stimulating to collaborate with peers.

3 Results and Discussion

3.1 Results

Teachers have prepared various kinds of ateliers inside and outside the class. Ateliers are in form of unused goods, recycled goods, and things around the children. The result of observation of the implementation of science learning through Reggio Emilia Approach can be seen in the table 2. From table 2, it can be shown that children enjoyed each of the procedures in learning science. On the other hand, parents seem to have lack of involvement in this process.
Table 2. Observation result of science learning

<table>
<thead>
<tr>
<th>No</th>
<th>Focus of observation</th>
<th>Result of observation</th>
</tr>
</thead>
</table>
| 1  | Teachers             | Motivate the children to do the activities  
                                Plan, facilitate, assess the children  
                                Guide the children  
                                Use real-unused things  
                                Document the children’s works  
                                Facilitate the children to tell what they have been learned |
| 2  | Children             | Seriously and happily observe:  
                                a. Mentos candy is put into a bottle of sprite while the bottle is closed with a balloon  
                                b. grouping: arranging plastic bottles according to size  
                                c. analyzing: saying that sprite will be spilt  
                                d. predicting: balloon will be wrecked  
                                e. applying: stir a glass of milk using spoon  
                                f. planning research: mix milk with color, stir it using cotton buds  
                                g. communicating: presenting the result of activities  
                                h. organizing the class: invite friends to do the same |
| 3  | Parents              | There is a lack of direct involvement from parents. Parents provide ateliers, but it is only occasional. |

In addition to the science observation of teaching and learning process, we also conducted interviews with teachers. Interview was employed to achieve in-depth data on the teaching and learning process. The following table 3 shows the result of interview with teachers.

Table 3. Interview result with teachers

<table>
<thead>
<tr>
<th>No</th>
<th>Indicator</th>
<th>Result of observation and interview</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Activity plan</td>
<td>Made based on the result of discussion with the children</td>
</tr>
<tr>
<td>2</td>
<td>Conformity of the activity and the plan</td>
<td>Sometime activities match the plan, but more often develop according to the children</td>
</tr>
<tr>
<td>3</td>
<td>Documentation/assessment</td>
<td>Making notes, photos, videos of the process of creating products</td>
</tr>
<tr>
<td>4</td>
<td>Activity document</td>
<td>Made based on the children’s activity, guiding children if necessary</td>
</tr>
<tr>
<td>5</td>
<td>Collaboration among teachers</td>
<td>Only for important thing</td>
</tr>
<tr>
<td>6</td>
<td>Collaboration between teachers and parents</td>
<td>Rarely conducted</td>
</tr>
</tbody>
</table>

To gain the trustworthy of the data, we also interviewed the parents. The interview is about their children’s learning of science implementation, too. Table 4 sumps up the result of interview with parents.

Table 4. Result of Interview with Parents

<table>
<thead>
<tr>
<th>No</th>
<th>Indicator</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Reason related to Reggio Emilia Approach</td>
<td>A good and interesting learning approach, children do not feel bored</td>
</tr>
<tr>
<td>2</td>
<td>Children’s problem in school</td>
<td>No problem, children happily join the activities</td>
</tr>
<tr>
<td>3</td>
<td>Parents’ contribution</td>
<td>Tuition fees and annual donation</td>
</tr>
<tr>
<td>4</td>
<td>Children’s guidance at home</td>
<td>Test and try things as they did in school</td>
</tr>
<tr>
<td>5</td>
<td>Children’s development</td>
<td>Children become more active and creative</td>
</tr>
</tbody>
</table>
3.2 Discussion

This study reveals that when the children involve in science learning through Reggio Emilia Approach with unused and recycled goods, there is a lack of collaboration among teachers. Tichenor [5] mentioned that the main problem for the teachers in conducting teaching and learning process is facing the class itself. Further, he mentioned that many teachers have less clear teaching strategies and have less expectation to improve the quality of the teaching. Another problem found was that some experienced teachers have difficulty in helping the novice teachers. The main problem in applying science learning through Reggio Emilia Approach is the un-readiness of the teacher to apply the strategy. Another problem is the reluctance of learning new things. Even worse, teachers are unwilling to change the mindset about education [6].

Reggio Emilia Approach also requires the collaboration between teachers and parents. However, in this case, parents have only a bit attention to the science learning through Reggio Emilia Approach. Parents only pay the tuition fees and annual donation. They feel that paying tuition fees is enough as a part of parents’ involvement in the teaching and learning process. Long time ago, some parents have ever donated unused bottles and stones, but only once. At school, children experiment and explore many things using the ateliers. Ideally, it must be continued at home with the same ateliers, but unfortunately not [7].

As the consequence, when children try to experiment and construct things at school, it cannot be done at home, especially when parents do not allow the children to use unused, waste, and recycled goods. Hence, in this case, there is a need to equalize the understanding of teaching and learning process between teachers and parents.

4 Conclusion

Reggio Emilia Approach is actually a good approach in science teaching and learning for children. Based on the research finding, however, it is known that in the process of science learning through Reggio Emilia Approach, there is a lack of collaboration among teachers. Likewise, there is a lack involvement from parents. Parents need to fully support the teaching and learning process by collaborating with teachers. The collaboration between teachers as well as parents’ support needs to be improved.

References


The Sister Village Program: Evaluation of Refugee Camp in Deyangan Village, Magelang District in Merapi Preparedness

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Abstract. The research objective was to evaluate the readiness of the Peyangga village and increase preparedness in evacuating refugees. The research design was a mixed method with a survey approach and FGD (Focus Group Discussion). The survey results on the suitability of the contingency plan and the readiness of the buffer sites indicate that it is appropriate. Evacuation locations have been provided taking into account the number of survivors of Krinjing village. At level 3 (standby), evacuation has been carried out for vulnerable groups: the elderly, toddlers, pregnant women, breastfeeding mothers, and groups with disabilities. Management of Logistical needs at the beginning was not optimal, however, after one week of implementation, management was carried out properly and transparently, especially recording logistic income and expenditure. In the field of education, an activity program has been structured and can run well, however in the field of economic and animal husbandry programs, preparations have not been made as planned. The results of the FGDs support that the contingency plan is good, but it is necessary to prepare the buffer villages in the livestock and economic sectors. To follow up the anticipation of the level increase, additional barracks for evacuation will be carried out and preparation of evacuation land for livestock.

Keywords: Sister village, Evaluasi, Contingensi Plan

1 Introduction

Mount Merapi is one of the active volcanoes in the world, located in the Central Java region and the Special Region of Yogyakarta. Mount Merapi has specific characteristics for its type of eruption, which produces hot clouds or wedus gembel in Javanese terms or nuée ardente in scientific terms. A primary hazard caused by the eruption of Merapi which consists of gas, rock and volcanic ash which are usually preceded by lava flows and collapsed lava domes. However, historical records have shown that often the eruptions of Mount Merapi occurred with different mechanisms, for example in 1872 and 2010 which occurred explosively [1], [10]. The impact caused by the eruption is the destruction of ecosystems as well as the loss of the potential of forests as providers of oxygen, carbon sinks and habitat for various unique flora and fauna that exist on Mount Merapi [8].

The time of the eruption of Mount Merapi cannot be ascertained. Like now, it has been 2 years at the alert level. The eruption of Mount Merapi in 2010 shows that the disasters caused by the eruption have caused enormous damage. This incident caused 1,705 injured victims,
consisting of 1,412 minor injuries and 293 serious injuries, 332 fatalities and 4,874 victims who experienced psychological disorders [1]. In addition to the problem of casualties, there will also be problems with unclear refugee camps and the village government having difficulty finding information on the fate of people in evacuation who do not know their whereabouts. To anticipate the impact of the eruption of Merapi in the disaster mitigation process, Magelang District has implemented a sister village program with the concept of one village in a disaster-prone area having a buffer village in a safe area. However, in an effort to apply the sister village concept, it is necessary to conduct an evaluation so that it does not cause new disasters in the buffer village location. With the increase in the alert status set by BPPPTKG on November 5, 2020, efforts that have been made in Deyangan Village as a refugee buffer village for Krinjing Village are the preparation of refugee barracks.

Deyangan Village has been making preparations for the past two years by preparing contingency plans that have been carried out in previous simulations. Previous research conducted by Wilybrodus [9] conducted in Ngargomulyo village in a disaster-prone village area showed that the concept of sister vallage is more organized, logistical readiness is more accurate, but the readiness of refugee camps has not matched the needs in terms of capacity and is still prone to conflicts between buffer villages with refugee villages. So, the need for common perceptions with the preparation of contingency plans together.

In this study, an evaluation of the suitability of the buffer village readiness will be carried out with the plans that have been prepared, both regarding the management of evacuation places, facilities, logistics, education and the economy. After this research is carried out, it is hoped that it can improve the preparedness of the buffer villages, especially in the readiness of the refugee barracks which is one of the most important factors in the disaster management of the eruption of Merapi.

2 Method

The research design was a mixed method with a survey approach and FGD (Focus Group Discussion). At the survey stage, evaluating the contingency planning documents with the preparedness of the refugee camps that have been prepared. After that, it was followed by an FGD involving the posko management, refugees and the village government. The FGD was attended by 17 people, taking care of the village administration, the asistance team of the post / final evacuation site, the krinjing village volunteer team and the deyangan village volunteer team. In this FGD stage, the evaluation and suitability of between planing with the fact done about the places of confinement will be discussed, such as the number of evacuation booths, the facilities provided, logistics management, health services, education, religion, psychosocial and economic conditions. Each the participant will submit an evaluation of each area management. This research was conducted in Deyangan Village in October-November 2020.

3 Results and Discussion

3.1 Contingency plan conformity

The survey results on the suitability of the contingency plan with the readiness of the buffer sites show that the provision of refugee camps is carried out when Mount Merapi is at the alert
level. Has been built in the buffer village housed in the village hall Deyangan. The facilities that have been established are public kitchens, toilets and bathrooms, logistic warehouses, health service places, coordination posts, and places of worship that are adequate and have prepared a health protocol for the prevention of covid-19. From the survey above, physically its provision has been carried out in accordance with the contingency plan. However, the number of final evacuation sites (TEA) shows that it does not match the capacity of the population of Krinjing Village. Currently there are 50 rooms that can be used in one family for each room. For evacuation at this alert level, namely for vulnerable groups so that the buffer village can meet the current number of refugees as many as 127 people out of 38 households. The survey results show that the current unpreparedness is in providing shelter and livestock management.

The results of the FGD implementation indicated that there was still insufficient provision of shelter, especially for later when the status of Merapi increased. This supports the results of the survey that the contingency plan is good, but it is necessary to make preparations for the villages in the number of evacuation places. In the logistical sector, health, religious, education and psychosocial facilities have been well planned, but it is necessary to consider additional land if the number of refugees increases. The things where there is no maximum readiness are in the livestock and economic sectors. The results of the FGD agreed that it was necessary to provide a large area for livestock because there were 954 cows and 134 goats that had to be given space.

3.2 Discussion

This study evaluates the suitability of the contingency plan with the readiness of the buffer village with the plans that have been compiled in the sister village program. It shows that the implementation of village preparedness has been substantially good. However, in terms of numbers, they are still in the process of providing refugee camps, facilities, logistics management, education services, health services and the economy / livestock.

Research supports the research conducted by Willybrodus [9] which was conducted in the Ngargomulyo sub-district, Magelang Regency, which shows that with the sister village concept, refugees will be more organized, monitored by the village government and feel safe and comfortable. However, it was not easy to form this sister village. Research conducted by Fiqih [5] in Boyolali district shows that the community is not familiar with the sister village program even though they have been displaced and there are several villages that refuse because the facilities are not yet available, especially in terms of livestock. Deyangan Village as a buffer village in this sister village program has been carried out by research by Kanti [7] which states that the buffer village community and refugees in terms of knowledge have increased, especially the existence of an early warning system and the LPBDes of Deyangan Village has been formed to mitigate the Merapi eruption disaster as a village Buffer.

The research we conducted looked at the readiness of the buffer villages in applying the contingency plans that had been prepared by the two sister villages previously. In the event that the village evacuation post has been provided with a centralized communication facility with the Regional Disaster Management Agency of Magelang Regency, the monior of Merapi's volcanic activity which is directly connected to the Merapi monitoring post in Babadan, Magelang district, IDP data information system, logistic monitoring system, clear post organizational structure. and security which continues to be carried out according to the picket schedule.
In the population evacuation sector, this research has carried out a good planning through an evacuation contingency plan. Safety in carrying out health services, especially nursing. According to the technical guidelines for crisis / emergency response, it shows that health/nursing services in disaster management are very important, both from evacuation, field services and evacuation services. These services include emergency and psychosocial services. In carrying out the evacuation, health workers were carried out and at TEA Deyangan, a rapid test was carried out for the prevention of covid transmission.

In the refugee barracks sector the United Nations High Commission of Refugees (UNHCR) in 2000 stated that the need for temporary evacuation space is 3.5 m² per person. At present, the Deyangan Final Evacuation Site (TEA) has built 50 booths with a size of 2.4 m² per room. With a building area of 664 m, currently it is inhabited by 127 people, indicating that there is still a lack of area for the refugees. According to research conducted by Farida, a settlement should ideally contain two main requirements, namely, the physical environment must reflect the pattern of life and cultural patterns of the displaced population, and the residential environment must be supported by adequate service facilities that are proportional to the size or extent of the environment and the number of refugees. Therefore, it is necessary to carry out good contingency planning in collecting data on refugees with the capacity of refugee camps.

According to Fauzi [4], facilities that have the number of basic needs of refugees that must be met include the needs for clean water, nutrition, toilets, sanitation and garbage, as well as the need for love rooms. The availability of toilets in TEA with 18 bathrooms, this shows that it is still ideal for refugees to use because the standard needs of 1 MCK can be used by 20-30 people.
Meanwhile, health facilities have been prepared in the health protocol by constructing a hand washing place and providing a hand sanitizer, for the need for clean water it has been carried out according to the contingency by being supplied by BPBD and PDAM. For sanitation and also love booths in this refugee camp have also been provided properly.

The majority of Krinjing villagers are farmers and breeders. In the contingency plan, there are data on 954 cows and 134 goats that will be evacuated if there is an increase in alert level status. In this sister village, it applies the concept that village siblings can provide the needs of their village. This research shows that there is no readiness in the buffer villages in an effort to prepare a place for the livestock sector. The results of the FGD agreed that there was land clearing provided by the Peyangga Village as a location for livestock locations. Willibrodus' research [9] states that livestock is often a problem in sister village programs. The availability of land is something that needs to be done in solving the solution to the problem of livestock. Apart from that, differences in types of forage and management of livestock prices must also be important to find solutions. The need for further research and discussion in the field of animal husbandry and the economy of refugee communities.

Two other concepts that are no less important in the sister village program are learning assistance and psychosocial support. The purpose of holding the concept of learning assistance and psychosocial support is twofold, first to maintain the learning atmosphere so that it is maintained, someone who leaves the learning atmosphere for too long will feel lazy to start again, secondly to provide new knowledge and skills to survivors with the hope that when the situation is tidy back to normal there is new knowledge that can be used in his hometown, in planning the concept of learning assistance can be seen in the Table 1.

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Examples of activities</th>
<th>Purposes</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>Sekolah pagi</td>
<td>So that the face-to-face school atmosphere can still be run so that the spirit of the school is maintained</td>
<td>School Age Children</td>
</tr>
<tr>
<td>Religious</td>
<td>Al-Qur'an Education</td>
<td>So that the spiritual atmosphere is maintained</td>
<td>School Age Children</td>
</tr>
<tr>
<td></td>
<td>Park (TPA) religious studies</td>
<td>So that the spiritual atmosphere is still maintained</td>
<td>All Age</td>
</tr>
<tr>
<td>Health</td>
<td>Medical Chek gymnastics for the elderly</td>
<td>Maintain physical health</td>
<td>All Age elderly people</td>
</tr>
<tr>
<td>Provision of skills</td>
<td>Waste material processing</td>
<td>Adding new knowledge</td>
<td>All age</td>
</tr>
<tr>
<td>Refreshing</td>
<td>Mini outbound</td>
<td>Eliminate boredom</td>
<td>All age</td>
</tr>
</tbody>
</table>

The concepts in the Table 1 will work well if there is a person in charge of the activity and scheduled time in every aspect. Psychosocial support is the last concept of concern. Many interpret psychosocial support and trauma healing as one and the same meaning, even though these two things are two different things. According to Quin, trauma healing is a healing intervention given to someone who is traumatized by an incident, the mention of the word trauma itself must go through a series of rigorous psychological examinations, while psychosocial support is giving motivation and support to someone who is in crisis, or a disaster.
situation, so that in dealing with it a person does not feel alone [6]. The existence of this concept is expected that when the sister village program is running, the activities carried out will be measurable and useful, this concept can also be a guide if there are communities / volunteers who want to participate in participating there are corridors / rules that must be followed, including a health certificate free of covid 19 and the number of volunteers who will fill the activity.

4 Conclusion

Based on this research, it shows that this sister village program is able to be a solution in the management of Merapi eruption refugees, with good contingency planning, the refugees will be more organized, monitoring the village government is easy and minimizing casualties and able to prevent disaster risk management, especially Merapi. What needs to be improved is the contingency plan for the management of the livestock sector and the economy to make people displaced and prevent the risk of danger because sometimes people prefer to save the lives of their livestock rather than their lives.

Acknowledgement

The author says many thank to the village government of Deyangan and Krinjing village who have provided the opportunity for researchers to collect data and provide assistance to refugee posts in implementing sister village-based contingency plans. Not to forget, we would like to thank the Magelang District BPBD for facilitating and entrusting the assistance of the village support post.

References


dalam implementasisister village


Brand Anthropomorphism and Culture Effect to Younger Consumer Visit Intention

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Abstract. RedDoorz has become one of the brands that is easily found in every city in Indonesia past 5 years. In that time, many investors have collaborated with RedDoorz because there are cultural shift, especially young people who like to vacation during their holidays. This study aims to examine whether the brand anthropomorphism and culture about holiday affect their intention in visiting hotels labeled RedDoorz. The survey was conducted in Yogyakarta and Central Java using questionnaires to 92 young people who became respondents. The collected data were processed using SPSS 2.5 with moderation regression analysis techniques. The results obtained by Brand Anthropomorphism have a positive and significant effect on visiting intentions and culture moderates the influence of Brand Anthropomorphism on visit intentions, so it can be concluded that culture greatly influences psychology and the way of thinking of humans, especially young people in making a decision to visit RedDoorz.

Keywords: Brand Anthropomorphism, Culture Effect, Visit Intention, Younger Consumer

1 Introduction

“RedDoorz” is a popular hotel management and booking platform that has been accessed by more than 100 cities in Indonesia and other ASEAN countries. As the fastest growing hotel chain in Southeast Asia, “RedDoorz” strives to support the convenience and ease of customer access at an affordable cost [1]. Data on booking growth on “RedDoorz” from 2017 to 2019 has increased on average 6 times every year. The Asia Travel Leaders' Summit said that in Indonesia, younger tourists were 23.95% of the total tourists, the majority chose “RedDoorz” as their place to stay [2], because the youngers really paid attention to affordability and preferred an easy and fast system for ordering hotels using digital platforms. This is what makes “RedDoorz” to be the most popular platform today and is predicted to become a unicorn startup by the end of 2020 [3]. "RedDoorz" uses the anthropomorphism brand strategy in approaching its target market. [4] said that the concept is suitable for use in marketing a hotel. This strategy is very effective in communicating the brand. Brand anthropomorphism has a very significant effect on marketing [5]. Brands anthropomorphism become agents that are easy, practical, and communicative [6]. [7] [8] said that the company's attachment to consumers is due to frequent interactions between the two, both emotionally, psychologically, and physically. This closely is influenced by external factors such as references and advertisements [9]. Local wisdom has a significant influence on choosing “RedDoorz” brand. With a strong relationship, it creates an intention to use that brand.
In anthromorphism theory, humans assume that objects (objects) seem to have human-like characteristics and personalities [10], one of this is social relations [11]. If belief is strong, then anthropomorphism is weak, and vice versa if belief is weak, then anthropomorphism is strong. According to [12] the market positioning strategy needed to get consumers. With the brand anthropomorphism, it is easier to influence the target market. Research on brand anthropomorphism has been conducted by [13] Brand anthropomorphism: Conceptualization, measurement, and impact on brand personality and loyalty which discusses the impact of hotel brand anthropomorphism on customer visit intentions. This was also done by [14] who used anthropomorphism as an effective brand communication strategy for customers. Local brands position themselves as something unique and authentic because they connect local culture and heritage, national identity, and local market needs [15]. Based on this research, there are 2 (two) research objectives to be achieved, 1) whether brand anthropomorphism affects to the visit intention and 2) does the culture effect moderate the relationship between brand anthropomorphism and visit intention. In the research done before, researcher found that culture is the important factors that influenced people in order choosing brand. The other sides, there were limitation of literature about the relationship between brand anthropomorphism, culture, and visit intention.

2 Method

This research uses quantitative methods. The data collection technique used a survey by distributing questionnaires with measures by Likert scale 1-5 (totally disagree - totally agree). The sampling technique was purposive sample with a sample of the younger consumers their age was 16-35 years who had stayed at a hotel in collaboration with the RedDoorz system. The number of samples in this study were 92 respondents. The data analysis method used is Moderated Regression Analysis to examine the moderating effect of the culture effect on the relationship between brand anthropomorphism and visit intention. The steps of statistical processes, first are validity analysis all of variables that are brand anthropomorphism as independent variable, visit intention as dependent variable, and culture effect as moderator variable using Confirmatory Factor Analysis and reliability analysis using Reliability Test, then r-square test, and the last is T-test using moderating regression analysis.

3 Results and Discussion

3.1 Statistic descriptive respondent

In this study, there were 92 questionnaires that met the criteria of the 106 questionnaires that were distributed. The respondent data are as follows (Table 1). Then, statistic descriptive answering statement is presented in Table 2. From Table 2, the respondents' answers varied from totally disagree until totally agree, but that mean score is agree (Likert scale score 4). All the data obtained were then tested for validity using factor analysis and reliability testing to ensure that the data was truly valid and reliable. Overall data results are valid and reliable as follows (Table 3).
Table 1. Students’ Portfolio Scores of Oral Performance

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Male</td>
<td>23</td>
<td>75%</td>
</tr>
<tr>
<td>b. Female</td>
<td>69</td>
<td>25%</td>
</tr>
<tr>
<td>Amount</td>
<td>92</td>
<td>100%</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. 16-25 years old</td>
<td>79</td>
<td>85%</td>
</tr>
<tr>
<td>b. 26-35 years old</td>
<td>13</td>
<td>15%</td>
</tr>
<tr>
<td>Amount</td>
<td>92</td>
<td>100%</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. High school</td>
<td>65</td>
<td>70.6%</td>
</tr>
<tr>
<td>b. Under graduate student</td>
<td>27</td>
<td>29.3%</td>
</tr>
<tr>
<td>Amount</td>
<td>92</td>
<td>100%</td>
</tr>
<tr>
<td>Profession</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Student</td>
<td>2</td>
<td>0.2%</td>
</tr>
<tr>
<td>b. Under graduate student</td>
<td>65</td>
<td>70.6%</td>
</tr>
<tr>
<td>c. Business</td>
<td>7</td>
<td>0.7%</td>
</tr>
<tr>
<td>d. Professional</td>
<td>7</td>
<td>0.7%</td>
</tr>
<tr>
<td>e. Teknicision</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>f. Others</td>
<td>11</td>
<td>27.8%</td>
</tr>
<tr>
<td>Amount</td>
<td>92</td>
<td>100%</td>
</tr>
<tr>
<td>Last Purchase Time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Todays</td>
<td>1</td>
<td>0.1%</td>
</tr>
<tr>
<td>b. Yesterday</td>
<td>-</td>
<td>0%</td>
</tr>
<tr>
<td>c. Last week</td>
<td>5</td>
<td>0.2%</td>
</tr>
<tr>
<td>d. Last month</td>
<td>39</td>
<td>42.3%</td>
</tr>
<tr>
<td>e. Others</td>
<td>49</td>
<td>57.4%</td>
</tr>
<tr>
<td>Amount</td>
<td>92</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: statistical data (2020)

Table 2. Statistic descriptive answering statement

<table>
<thead>
<tr>
<th>Variable</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Deviation Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand antrophomorpism</td>
<td>1.13</td>
<td>5.00</td>
<td>3.56</td>
<td>0.53</td>
</tr>
<tr>
<td>Visit intention</td>
<td>1.00</td>
<td>5.00</td>
<td>3.18</td>
<td>0.67</td>
</tr>
<tr>
<td>Culture effect</td>
<td>1.00</td>
<td>5.00</td>
<td>3.22</td>
<td>0.70</td>
</tr>
</tbody>
</table>

Source: statistical data (2020)

Table 3. Validity and Reliability Analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>KMO Battlet test</th>
<th>Significance</th>
<th>Cronbach Alpha</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand antrophomorpism</td>
<td>0.87</td>
<td>0.00</td>
<td>0.80</td>
<td>valid and reliable</td>
</tr>
<tr>
<td>Visit intention</td>
<td>0.56</td>
<td>0.00</td>
<td>0.72</td>
<td>valid and reliable</td>
</tr>
<tr>
<td>Culture effect</td>
<td>0.60</td>
<td>0.00</td>
<td>0.69</td>
<td>valid and reliable</td>
</tr>
</tbody>
</table>

Source: statistical data (2020)

Furthermore, the test is conducted to determine the r-square value, and hypothesis testing using Moderating Regression Analysis with the results as follows (Table 4 and 5).

Table 4. Validity and reliability analysis

<table>
<thead>
<tr>
<th>Model</th>
<th>B</th>
<th>T</th>
<th>sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>0.336</td>
<td>0.969</td>
</tr>
<tr>
<td></td>
<td>Brand Antrophomorpism (X)</td>
<td>0.798</td>
<td>8.288</td>
</tr>
<tr>
<td></td>
<td>(Constant)</td>
<td>0.710</td>
<td>0.799</td>
</tr>
<tr>
<td></td>
<td>Brand Antrophomorpism (X)</td>
<td>0.499</td>
<td>1.928</td>
</tr>
<tr>
<td>2</td>
<td>Visit Intention (Y)</td>
<td>0.016</td>
<td>0.059</td>
</tr>
<tr>
<td></td>
<td>Culture Effect (Z)</td>
<td>0.053</td>
<td>0.699</td>
</tr>
<tr>
<td></td>
<td>BA x AA (Moderusi)</td>
<td>0.053</td>
<td>0.699</td>
</tr>
<tr>
<td>Model</td>
<td>R</td>
<td>R square</td>
<td>Adjusted R squared</td>
</tr>
<tr>
<td>-------</td>
<td>---</td>
<td>----------</td>
<td>--------------------</td>
</tr>
<tr>
<td>1</td>
<td>0.631</td>
<td>0.398</td>
<td>0.392</td>
</tr>
<tr>
<td></td>
<td>Brand Antrophomorphism (X)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>0.665</td>
<td>0.443</td>
<td>0.426</td>
</tr>
<tr>
<td></td>
<td>Brand Antrophomorphism (X)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Culture Effect (Z)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5. hypothesis testing

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>t-stat</th>
<th>t-table</th>
<th>Sig.</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: Brand anthropomorphism to the Visit intention</td>
<td>1,92</td>
<td>1,65</td>
<td>.00</td>
<td>supported</td>
</tr>
<tr>
<td>H2: Culture effect moderates Brand anthropomorphism and Visit intention</td>
<td>8,2</td>
<td>1,65</td>
<td>.00</td>
<td>supported</td>
</tr>
</tbody>
</table>

Source: statistical data (2020)

3.2 Discussion

Looking at the descriptive statistical results in Table 5, it can be seen that the majority of respondents are women and also young, it means that the culture in Indonesia today is that many women and young people are accustomed to staying at hotels. This culture is very different from the past where women rarely dared to travel far and stay in hotels because they carried a negative image. A years ago, people who could stay at hotels were people who were already working and had their own income, because hotels were luxurious places to stay. Today, technology and other conveniences can shift one’s view, including on a brand. This seems to be captured by "RedDoorz". "RedDoorz" uses the concept of Brand Anthropomorphism in influencing consumers to stay.

If you look at the comparison between the t-table value and the t-statistic and also the significance value, it can be assumed that the effect of brand anthropomorphism is very significant on visit intention. Referring to previous studies, it says that apart from brand anthropomorphism, there are still many other factors that influence [16]. [17] says that brand signature, brand awareness, brand attitude, and brand reputation are also influential on visit intentions but the most influential one is brand anthropomorphism. This research is similar with research [18] and [19]. The anthropomorphism theory which states that humans perceive objects (objects) as if they have human-like characteristics and personalities, can be implemented by “RedDoorz” through their social media [13]. Having an Instagram account with quite a number of followers, uploading photos and videos interesting, and the interactive “RedDoorz” concept in social media is able to shape consumers' emotional perceptions. With the concept of brand anthropomorphism, Brand anthropomorphism has a positive effect on visit intention. Referring to these results, the first hypothesis is supported.

The interesting of this research is about psychological factors and the use of technology, it turns out that consumer culture is very influential. This is reflected in the descriptive statistics of respondents in Table 1 that illustrating that young people currently travel out of town during holidays even though with a limited budget and confirmed by the results of statistical tests in Hypothesis 2 which states that the culture effect moderates the influence of brand anthropomorphism on visits intention (Table 4). From the results of the Moderate Regression Analysis test, it is proven that culture moderates the effect of brand anthropomorphism on visit intention as evidenced by the t-statistic is greater than t-table (8.2 > 1.65964) and a significance
value (0.00 < 0.05) so that the hypothesis was supported. It can be interpreted that culture influences the views of one's thoughts on visit intention in "RedDoorz". Along with the increasing penetration of internet users in Indonesia, young people remain the main target for businesspeople including the hotel booking platform "RedDoorz". The concept and features on the “RedDoorz” web that are simple, elegant, and easily accessible are an attraction for new customers or consumers. High ratings and positive testimonials from users clearly displayed on the reddoorz.com web feature shape people's attitudes and interests to visit [4]. The real thing is what makes someone's view to trust “RedDoorz”. The development of the information and communication technology is supporting with the increasing use of social media marketing which is able to form a brand anthropomorphism.

4 Conclusion

This study aims to examine the effect of brand anthropomorphism on visit intention and the effect of culture effect as a moderating variable between brand anthropomorphism on visit intention. Based on the results that has been done, it can be concluded that brand anthropomorphism has a positive effect on visit intention and the culture effect moderates the effect of brand anthropomorphism on visit intention. The interesting thing from this research is because it turns out that culture greatly influences of person’s perspective, especially young people in choosing a place to stay. It proves by statistical score and significance scores. Culture in Indonesia, a person's decisions are also strongly influenced by the opinions of those closest to him. The limitations of this research was conducted at the beginning of the Covid-19 pandemic so that it did not get a sample of respondents evenly throughout Indonesia. Future research is expected to explore more further about the relationship between brand anthropomorphism and culture.

Acknowledgement

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References


Satisfaction Level of Higher Education Graduates in the Industrial Revolution Era 4.0

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**Abstract.** To realize the Vision and Mission to become a Excellent and Islamic University Universitas Muhammadiyah Magelang establish a long term plan 2020-2024 in six stages. One of the stages is strengthening of national competitiveness and initiating internationalization. The intended national competitiveness is quality of graduate. The research aims to determine the level of satisfaction of graduate users to developing a curriculum and relevance to the business and the industrial world. The method used in this research is descriptive qualitative. The population was taken from 1359 graduates in 2018 with a total sample size of 160 graduate users who filled out surveys in 2020. The technique of collecting data is through filling out an online survey tracer study on the website. Six variables studied from integrity, professionalism, ability use of information technology, communication skills, teamwork and self-development showed very good or high results with an average of 38\% and good or moderate categories of 57\% and 5\% enough or low. The survey results that the English proficiency of graduates is low, 12.50\% or 20 people who are declared very good or high and 45\% or 72 people then there are 35\% or 56 people who are categorized good and 6.88 \%. or 11 people with low or poor ratings. This shows that graduates users are not satisfied with the graduates' English skills. Even at this point, the response from graduate users clearly mentions that graduates have poor English skills.

**Keywords:** Satisfaction, Level Higher Education, Industrial Revolution Era 4.0.

1 **Introduction**

Universities are educational institutions that give birth to human resources in the form of graduates who are expected to be ready to be absorbed by the community as users [1]. Human resources for the owners and managers of tertiary institutions, the quality management system is essentially at the core of continuous improvement to strengthen and develop the quality of graduates so that they can be absorbed by agencies and the labor market [2], [3].

Graduates who are well absorbed in the market, whether they are entrepreneurial or work with other people, are able to become the basis for whether the existence of the institution will
be maintained or not. How much higher education alumni are able to take part in development according to the relevance of their education can be carried out by tracing their graduates [4].

Therefore, to produce high quality alumni, it is required to be able to develop the potential of higher quality students in accordance with the quality that has been set. To realize the Vision and Mission of becoming a Superior and Islamic University, Universitas Muhammadiyah Magelang has set the 2020-2044 Long Term Plan in 6 stages. One of the stages is the strengthening of national competitiveness, namely the quality of graduates. To find out the quality of graduates, it is necessary to carry out tracer studies or graduate tracking activities that are focused on graduate users with the aim of extracting information from alumni / graduate users regarding the development of competencies needed by the job market for curriculum improvement in the era of the industrial revolution 4.0.

However, in order to achieve graduates with qualifications in accordance with market needs and global competition in the current era of the Industrial Revolution 4.0, tracer study activities are needed [5]. The information obtained from tracer studies is very useful for various evaluations of higher education outcomes, improvement and assurance of the quality of higher education institutions and the relevance of higher education, information for stakeholders, and requirements for accreditation of higher education[6].

The quality of the institution will determine the success of the learning process for students. With good quality, it is expected to be able to produce a generation capable of being smart professionals and able to keep up with the times and remain relevant to progress. With good quality, it will make graduate users feel satisfied and appreciate the skills and skills of graduates in the world of work. Conversely, without the ability of alumni to work, it causes user dissatisfaction. This can be due to the irrelevance of the curriculum being taught to the challenges and dynamics of the world of work. The purpose of the graduate use tracer is to collect relevant information and input from graduates related to the "learning and working experience" experienced by graduates for the development of higher education [7].

From the background of the problem, it can be formulated the problem of the level of satisfaction of the graduate users of the alumni of the Muhammadiyah University of Magelang. The purpose of this study was to determine the absorption, process, and position of graduates in the world of work, evaluation of higher education outcomes and subsequently can be used to improve and guarantee the quality of higher education institutions and to refine the curriculum at the University of Muhammadiyah Magelang, and to provide information about the relationship between higher education and the world of professional work, assessing the relevance of higher education, information for stakeholders.

Several studies that have been carried out on graduate user satisfaction include [8], which describes and analyzes the level of satisfaction of PLS students with educational services at FIP UNNES, and the level of user satisfaction with graduates. Research by Mahendra (2012) which discusses "User Satisfaction Study of Graduates of the Building Engineering Education Study Program, Department of Civil Engineering, FT UNJ (Case Studies in Formal and Non-Formal Educational Institutions in Jabodetabek) in 2012. Research from Agustin (2017) discusses" Analysis of the Readiness of Graduates of the Building Engineering Education Study Program, Faculty of Engineering, State University of Jakarta in the Field of Work.

This research study aims to determine the level of user satisfaction of graduates in 2018 in order to develop a curriculum and its relevance to the world of business and industry through a survey on graduate user satisfaction, graduate competence and user suggestions for competency improvement. Some of the things that will be surveyed are integrity, expertise based on scientific fields, English language skills, the ability to use information technology,
communication skills, work motivation, work ethic, problem solving skills, broad insight between disciplines and teamwork.

2 Method

Based on the objectives to be obtained in this study, this study uses a descriptive approach. This is intended to provide solutions to problems that exist today. This research has stages of data collection, data analysis, making conclusions and reports. The method used was a survey with a stratified proportionate random sampling technique with a minimum sampling rate of 20% of the graduate population. The population was taken from graduates in 2018 as many as 800 graduate users with a total sample of 160 graduate users who filled out the survey from August to October in 2020. The research variables used included integrity (ethics and morals), professionalism (suitability between fields of science), English proficiency, ability to use information technology, communication skills, teamwork and self-development. The research instrument is a tool that will be used for research data collection. The instrument used was a survey questionnaire sheet for 160 users. The data collection technique was through filling out the survey tracer study form online on the website. After obtaining the data, the data will be entered in excel and then made percentages and graphs to make it easier to read the results.

3 Results and Discussion

3.1 User tracer stages graduates

Graduate User Tracer activities are carried out in several stages, namely the preparation, implementation and reporting stages with detailed explanations as follows. The preparation stage is carried out through various activities, including: cohorts, questionnaires, alumni update data, graduate user data, appeal letters. This stage is carried out after carrying out the preparation stage. This stage is done by taking several steps; outreach, survey starts, reminder 1-3, survey is closed. The reporting stage is carried out after the questionnaire is collected as a whole or meets the standards of data collection, with the following activities: Of the 800 alumni in 2018, there were 160 graduate users who filled out the survey with the following results in Table 1. Result survey in below:

Table 1. Result survey evaluation aspect

<table>
<thead>
<tr>
<th>Aspects of the Assessment</th>
<th>Very Good</th>
<th>Good</th>
<th>Sufficient</th>
<th>Less</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integrity (Ethics and Morals)</td>
<td>49.38 %</td>
<td>48.13 %</td>
<td>2.50 %</td>
<td>0.00 %</td>
</tr>
<tr>
<td>Expertise based on the field of science (professionalism)</td>
<td>41.25 %</td>
<td>55.63 %</td>
<td>3.13 %</td>
<td>0.00 %</td>
</tr>
<tr>
<td>English language skills</td>
<td>12.50 %</td>
<td>45.00 %</td>
<td>35.63 %</td>
<td>6.88 %</td>
</tr>
<tr>
<td>Use of information technology</td>
<td>37.50 %</td>
<td>55.63 %</td>
<td>6.88 %</td>
<td>0.00 %</td>
</tr>
<tr>
<td>Communication skills</td>
<td>36.25 %</td>
<td>60.63 %</td>
<td>3.13 %</td>
<td>0.00 %</td>
</tr>
<tr>
<td>Teamwork</td>
<td>38.75 %</td>
<td>58.13 %</td>
<td>3.13 %</td>
<td>0.00 %</td>
</tr>
<tr>
<td>Self-development</td>
<td>26.88 %</td>
<td>66.88%</td>
<td>6.25 %</td>
<td>0.00 %</td>
</tr>
</tbody>
</table>
3.2 User tracer result graduates

a. Ethical and moral integrity
The results showed that graduate users gave good and very good categories to graduates, namely having integrity with very good categories of 49.4% and good categories of 48.1%, and only 2.5% or about 4 alumni who got sufficient grades. It shows that the level of success of the university in imparting soft skills and ethics is very high.

b. Expertise based on the field of science
The graduate users gave an assessment to alumni who work in their company/institution with a very good category of 41.25% or a total of 66 alumni, while in the good category it was 55.63% or 89 alumni and 3.13% with a sufficient score of 5 person. Expertise in the field of science is the match between the curriculum being taught and the needs in the world of work.

c. English language skills
The survey results obtained show that the English proficiency of graduates or alumni is low, namely 12.50% or 20 people who are declared very good and 72 people are good, then there are 57 people with a fairly good category and 6.88% or 11 people with poor ratings. or bad. This shows that alumni users are not satisfied with the graduates' English skills. Even at this point, the response from graduate users clearly mentions that graduates have poor English skills.

d. Ability to use information technology
Based on the data analysis, it was found that the graduate users gave a very good rating of 37.50%, namely 60 people, 55.63% were good, and quite good was 6.88% g. This means that in terms of the ability to collect information, it needs to be improved again because the highest score is in the good category.

e. Communication skills
For the ability to communicate, the use of graduates gave an assessment that the good category was the highest with a percentage of 60.63% or a number of 97 people and very good 58 people or 36.25% and a sufficient category of 3.13% or a total of 5 people. This shows that the communication skills of graduates need to be improved in order to achieve excellent assessments.

f. Teamwork
For the assessment of teamwork, it has not shown a high level of satisfaction, namely 38.75% choosing very good or 62 people and 58.13, namely 93 people who were declared good and the rest was sufficient, namely 3.13% or 5 people.

g. Self development
The ability of alumni to develop themselves is included in the good category of 66, 88% or 107 people and the very good category is 26.88%, namely 43 people and 6.25% or 10 people with the sufficient category.

4 Conclusion

The assessment for graduates about integrity, professionalism, ability to use information technology, communication skills, teamwork, and self-development is already very good and good. However, the English language skills of the graduates of the Muhammadiyah University
of Magelang in 2018 were still low, 57 alumni with sufficient assessments and 11 people with poor assessments. It is hoped that this will become a reference for improving the curriculum and increasing English learning so that it is relevant to the needs of current graduate users.

Acknowledgement

This research was funded by APBU University of Muhammadiyah Magelang in 2019/2020. We would like to thank LPPM Muhammadiyah University of Magelang who has provided a lot of assistance and support so that this research can be completed from the beginning to publication. Thank you also to the team who helped the completion of this research

References

Online Learning during the Covid-19 Pandemic: Opportunities and challenges

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Abstract. Covid-19 has had a huge impact on various fields, including the education’s system. A sudden pandemic situation has an impact on changing the pattern of the learning system. Face-to-face offline learning is turning into distance learning through online learning. Behind the opportunities of online learning, this sudden change of course raises some problems. This article aims to review articles about the challenges and opportunities for online learning during the COVID-19 pandemic. Literature study of several research articles on online learning during the Covid-19 pandemic published in 2020 was conducted as a research method. The results of the review show that there are challenges and opportunities from the learning journey during Covid-19. Opportunities from online learning include flexible learning that can be done anytime and anywhere, not limited to place and time, student ideas that are expressed systematically and explicitly, student freedom to choose courses to follow and which assignments to do first, also learning documentation saved well. However, several challenges were also found, such as unstable internet access, the limitation of internet quota, availability of facilities, creativity of educators, limited participants in the courses, less interactive communication and others.

Keywords: Online Learning, Online Learning Opportunities, Online Learning Challenges

1 Introduction

The sudden and complete emergence of Covid-19 and the rise of 215 countries in the World, presents its own challenges in the field of Education. Social restrictions and maintaining physical distance are carried out to minimize the spread of covid-19. Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2) which causes Coronavirus Disease 2019 (COVID-19) spreads to more than 215 countries and regions including Indonesia. The widespread spread of COVID-19, massif and very rapid impact to all sectors of life is no exception in the field of education [1]. Through the Ministry of Education and Culture the Government has banned face-to-face learning and ordered the online learning [2]. Online learning is one type of learning that requires an internet network and is online based with accessibility, connectivity, flexibility, and the ability to produce various types of learning interactions.

Online learning can be interpreted as a type of learning that uses information technology and done using internet media. Online learning uses Information and Communication
Technology (ICT) in education to convey information with the aim of improving the learning experience and performance of students where instructors or educators and learners are separated by distance, time, or by both [4]. This definition shows that online learning provides time and space flexibility opportunities through the sophistication of the technology system. Online learning was also chosen as a solution in the pandemic era due to the practicality, effectiveness and efficiency to be implemented remotely. Breaking the chain of spread of Covid-19 has forced the face-to-face learning process to become full online learning.

A number of studies have discussed the impact of online learning during pandemics. Online learning drastically and done without careful preparation certainly has a number of challenges as well as opportunities in its implementation. This article aims to review several articles about online learning during the Covid-19 pandemic. This was done to obtain comprehensive information about the opportunities and challenges of online learning during the Covid-19 pandemic.

2 Method

This research uses literature review method with some steps such as; identification, collection, selection and analysis of articles related to online learning during pandemics. The systematic review is carried out in several steps; (1) identification, (2) search and collection of journal articles and obtained data from e-database of 25 articles, (3) selection and sorting of articles according to the criteria obtained 10 articles, (4) analysis and presentation of the results of the ten articles [5].

3 Results and Discussion

During the covid-19 pandemic educators and learners were forced to use online learning. Educators and learners are required to quickly adapt to a variety of platforms or applications that were not previously familiar to them. Online learning certainly provides a new experience in learning. During the learning and adaptation process, there are many challenges in the journey follow the Table 1.

Table 1. Analysis of challenges and opportunities sourced from 10 articles on learning during the covid-19 pandemic

<table>
<thead>
<tr>
<th>No</th>
<th>Name</th>
<th>Journal</th>
<th>Years</th>
<th>Challenge</th>
<th>Opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Ali Sadikin Afreni Hamidah</td>
<td>Blodik</td>
<td>2020</td>
<td>availability of internet services wasteful of quota</td>
<td>A learning which is not bound by space and time</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- less effective when more than 20 learners</td>
<td>The use of some supporting devices has the advantage of being able to interact directly between students and lecturers as well as teaching materials</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- the use of the gadget excessive (uncontrolled))</td>
<td>- Online learning also has the advantage of</td>
</tr>
<tr>
<td>No</td>
<td>Name</td>
<td>Journal</td>
<td>Years</td>
<td>Challenge</td>
<td>Opportunities</td>
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<td>---------------------------------------------------------------------------</td>
<td>------------------------------------------------</td>
</tr>
<tr>
<td>2.</td>
<td>Elina Lestariyanti</td>
<td>Prakarsa Paedogogia</td>
<td>2020</td>
<td>Characteristics of students Geographical conditions Availability of gadgets/technology devices Internet quota charges Educator creativity Internet affordability</td>
<td>being able to grow self-regulated learning</td>
</tr>
<tr>
<td>3.</td>
<td>Rodame Monitorir Napitupulu</td>
<td>Jurnal Inovasi Teknologi Pendidikan</td>
<td>2020</td>
<td>cannot obtain learning materials easily can’t learn the material easily Limited devices/facilities Uneasy of Learning Monitoring</td>
<td>Interactive Learning Opportunity to respond to material - Self-reliance on learning</td>
</tr>
<tr>
<td>4.</td>
<td>Rizqon Halal Syaj Aji</td>
<td>Salam</td>
<td>2020</td>
<td>Limitations in Mastering Information Technology by educators Inadequate Facilities and Infrastructure Limited Internet access Lack of budget</td>
<td>- flexible</td>
</tr>
<tr>
<td>5.</td>
<td>Fazar Nuriansyah</td>
<td>Pendidikan Ekonomi Indonesia</td>
<td>2020</td>
<td>Low student understanding Low Motivation</td>
<td>Academic grades increase Flexible Increasing learning creativity</td>
</tr>
<tr>
<td>6.</td>
<td>Luh Sri Damayanti</td>
<td>Journey</td>
<td>2020</td>
<td>Inequality of internet access Adequate facilities Educator’s budget</td>
<td>Flexible Minimizing costs in the learning process</td>
</tr>
<tr>
<td>No</td>
<td>Name</td>
<td>Journal</td>
<td>Years</td>
<td>Challenge</td>
<td>Opportunities</td>
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<td>---------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>7</td>
<td>Abd. Syukur, dkk</td>
<td>JPPNu</td>
<td>2020</td>
<td>Internet access - Educator Creativity</td>
<td>Students are significantly passionate about the learning process increased student enthusiasm in responding to every task/information flexible effectiveness</td>
</tr>
<tr>
<td>8</td>
<td>Suci Ferdiana</td>
<td>Indonesian Journal of Science Learning</td>
<td>2020</td>
<td>Duration limitations - Quota limitations - Less powerful and unstable internet network - Limited participants - No filtrations of content</td>
<td>facilitating communication between lecturers and students by utilizing several features to disseminate learning information student ideas will be revealed systematically and explicitly</td>
</tr>
<tr>
<td>9</td>
<td>Asmuni</td>
<td>Paedagogy</td>
<td>2020</td>
<td>Limitations in Mastering Information Technology by educators - Internet access Limitation - Supervision from educators to learners Limitation - Supporting facilities Limitation</td>
<td>Flexible effectiveness</td>
</tr>
<tr>
<td>10</td>
<td>Niken Bayu Anggraeni</td>
<td>Plancentum</td>
<td>2020</td>
<td>Social media fatigue - Buildup of information/concepts - Boredom in students - Students' Stress</td>
<td>Improved literacy capability flexible effectiveness increase the level of learning interaction make it easier to improve and store the earning materials</td>
</tr>
</tbody>
</table>

Based on the results of the analysis from 10 articles on online learning during the pandemic, there are several challenges such as the availability of internet services, waste of quotas, less effective if more than 20 students, excessive use of gadget (uncontrolled), online learning has...
specific challenges, the location of students and lecturers who are separated while carrying out causes lecturers to be unable to directly supervise student activities during the learning process, and students get difficulty in understanding lecture materials provided online [3], [7]. Other challenges also arise including students' characteristics, geographic conditions, availability of technology gadgets/devices, the cost burden of internet quotas, the creativity of educators, the affordability of internet networks [8], [9], and limited devices/facilities [10]. Limited mastery of information technology by educators, inadequate facilities and infrastructure, limited Internet access, lack of budget provision [11]-[13].

On the other hand, online learning also presents new challenges such as social media fatigue, information/concept build-up, boredom and stress in students [14]. However, online learning also has a positive side that gives rise to learning opportunities that are not tied to space and time, the use of several supporting devices has the advantage of being able to interact directly between students and lecturers as well as teaching materials, online learning also has the advantage of being able to foster self-regulated learning in students [3], [11]. Online learning also has advantages on effectiveness, flexibility, accommodation in learning, creating new learning atmospheres, active and enjoyable learning, improving learning independence, increasing confidence, giving new learning opportunities, improving high-level thinking skills [8], [10], [13]. In addition, online learning provides an opportunity for students to explore learning topics through the learning resources available on the internet, attracting students in engagement so as to foster creativity and critical thinking skills, facilitate communication between lecturers and students by utilizing several features to disseminate learning information, student ideas will be revealed systemically and expressly, improve literacy skills and facilitate the improvement and storage of learning materials [12] [6] [7] [9] [14].

4 Conclusion

The COVID-19 pandemic is forcing updates and major changes to the world of education. Face-to-face learning must change with an online learning system. The review from ten research articles related to online learning during the COVID-19 pandemic show a number of opportunities, namely online learning that provides effectiveness, flexibility, accommodation and creates fun active learning and presents a new learning atmosphere. The advantages of online learning also have an impact on the formation of independent characters, confidence, high learning motivation, and improved high-level thinking skills. The learning system that changes rapidly certainly raises challenges in its implementation such as internet access, quota fees, availability and support for technology or gadgets. In addition, the level of teacher creativity, student characteristics, environmental support and geographic conditions are also challenging that need to be considered in order to achieve the best results in the use of online learning.

References

2020.


Study Analysis for Development of Discovery Learning Model Based on Naturalist Intelligence to Improve Student Science Literation

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Abstract. This study aims to analyze the needs of the Development of Discovery Learning Model Based on Naturalist Intelligence. The research was conducted using a survey method. The research subjects were 20 Elementary Schools, involving 20 teachers and 180 students. The focus of the assessment is the teacher’s response to the development of the Discovery Learning model based on naturalist intelligence and student scientific literacy. Data were collected by interview, questionnaire, observation. Data were analyzed descriptively quantitative. The results of the analysis show that (1) the principal supports efforts to develop a learning model as a form of adaptation to learning changes due to the COVID-19 pandemic, (2) the teacher supports and states readiness to be involved in development, (4) the students’ scientific literacy is categorized as lacking. The implication is the development of Naturalist Intelligence Based Discovery Learning to Improve Students Science Literacy.

Keywords: Discovery Learning Model, Naturalist, Literacy Science

1 Introduction

Science learning is a process of interaction between teachers and students in studying events that occur in nature, through scientific activities to achieve learning goals. A very important goal of learning science is to develop process skills and investigate the natural environment, solve problems, and make decisions. Because of the entire educational process in schools, the learning process is the main part of learning activities. In line with that, the essence of science learning is to emphasize the process, learning science as a product and as a scientific attitude.

Learning science as a scientific attitude is an attitude that is developed when students carry out a learning process such as experimental activities, discussions, or simulations. Learning science as a product is the knowledge that students get from the learning process they do. Meanwhile, science learning as a process is a process to obtain a product. The knowledge that students get from the teacher and also reading books, should be supported by student experiences during the learning process to gain this knowledge through discovery, investigation or discussion activities. Through this learning experience, students become more active and the knowledge gained lasts longer, has better understanding of the material being studied, and is able to use this knowledge in everyday life.

Teachers play an important role in the learning process, namely choosing a learning model that suits the needs of students and the material being taught, directing students during the
learning process, and facilitating students when carrying out the learning process. By carrying out its role as best as possible, the teacher hopes that the learning process can run well so that it affects the increase in student learning outcomes. The opinion that all children are intelligent and that children have different ways of being smart is a basic proposition of the theory of multiple intelligence. The basic proposition of the theory of multiple intelligence must be understood and believed by every teacher. The teacher must know and believe that every child has intelligence and the teacher's job is to provide stimulation or different stimuli so that students have the opportunity to raise and develop every indicator of intelligence they have.

Produces an intellectual work entitled Intelligence Reframed which states that the human brain stores at least nine types of agreed intelligence, which consist of: linguistic intelligence, logic-mathematical intelligence, visual-spatial intelligence, intelligence kinesthetic, musical intelligence, interpersonal intelligence, intrapersonal intelligence, naturalist intelligence and existential intelligence [1]. Naturalist intelligence is one of the nine intelligences mentioned by Howard Gardner, Naturalist intelligence is the ability of a person to demonstrate proficiency in recognizing and classifying many species (flora and fauna) in their environment, recognizing the existence of a species, mapping the relationships between several species, including sensitivity to other natural phenomena (cloud formations, mountains), distinguishing inanimate objects and the ability to perceive forms and connecting elements in nature [2].

Discovery learning model is a learning model that is needed in carrying out the science learning process, because the meaning of discovery itself is discovery through experimentation which is part of the science process [3]. The discovery learning model is good because in the discovery students have the opportunity to be actively involved, so that it can increase student participation and learn more meaningful learning [4]. The application of discovery learning models is expected to increase learning outcomes.

The development of technology and information has influenced the development of the world of education in Indonesia. Along with advances in information technology, the development of education is increasingly changing and encouraging various efforts for better changes. The education process has shown rapid development in the fields of more advanced curriculum, learning methods, and supporting facilities. Overall, it can be said that the changes that occur are reforms in the education system to balance advances in science and technology globally. Education can also be a force to make changes so that conditions are better [5].

One of the parameters for the quality of education in a country is that it is reflected in the achievements of its students in participating in National and International studies. Scientific literacy is a person's ability to understand science, communicate science, and apply scientific knowledge to solve problems so that they have a high attitude and sensitivity to themselves and their environment in making decisions based on scientific considerations [6]. PISA (Program for International Student Assessment) is a literacy study conducted by the Organization for Economic Co-Operation and Development (OECD) and the Unesco Institute for Statistics. Thus, it is necessary to develop a learning model based on the nature of science learning, children's intelligence, and global demands [7].

2 Method

This research refers to the Plomp development model which includes: 1) the initial investigation phase; 2) the design / design phase; 3) realization / construction phase; 4) test, evaluation & revision phase; and 5) implementation phase. The first phase, namely the initial
investigation phase, is information gathering (need assessment) then designing and developing learning model products. The subjects of this study were students, teachers, school principals and students' initial scientific literacy level tests. Data were collected by means of observation, questionnaires and tests. Observations were made on the implementation of the learning process. The questionnaire was carried out in a limited manner with science teaching teachers in schools to determine the obstacles faced, especially in learning and the need for developing models according to student intelligence. The test method was carried out to trace the initial conditions of students' scientific literacy levels. Furthermore, the results of literature studies and field studies are used as materials for designing the development of learning models that are ready to be validated by experts.

3 Results and Discussion

3.1 Level of teacher understanding of the research variables

In this needs analysis, it has been distributed to 20 elementary school teachers. Based on the results of the questionnaire, it can be described that the majority of the teachers in the study sample have understood innovative learning models, discovery learning models, naturalist intelligence and scientific literacy. This is influenced by the implementation of the 2013 curriculum that has been implemented. The teacher's understanding of this aspect is because there are workshops that are carried out regularly and periodically monitoring by the principal. Therefore, 70% of teachers expressed their hopes for an effort to develop a student-centered learning model (SCL) and be immediately carried out because of the COVID-19 pandemic, they are required to make learning innovations that can be done at home and capacity student intelligence. Several teachers have tried to develop a learning model during the Covid 19 pandemic but the measure of success has not been measured in detail. This was done because we were looking for an effective formula for teaching during the Covid 19 pandemic to learn online. The following shows the results of the survey on teacher understanding of the research variables can be seen at Figure 1.

![Survey teachers' understanding of research variables](image)

Fig. 1. Level of teacher understanding of the research variables
The result of the next analysis is a questionnaire about the need for the development of learning models. The majority of teachers hope that there will be the development of a science learning model that can facilitate intelligence and can improve children's scientific literacy skills. Based on the results of adoption, it is found that there is optimism for the success of developing a learning model. Currently, children have entered the digital age, so learning must continue to be developed and based on 21st century abilities in accordance with the characteristics of the 2013 curriculum that is currently being implemented in Indonesia [8]. The teacher response to model development can be seen at Figure 2.

![Teacher response to model development](image)

Fig. 2. Teacher response to model development

There are 70% agree that there is a model development because the current learning model is not optimal enough to achieve a high level of scientific literacy. 15% of teachers gave an opinion that there were difficulties in implementation due to the conditions of the Covid 19 pandemic which caused them to not be able to carry out learning in class. 10% of teachers think to use another model because discovery learning models have been widely used. The remaining 5% gave an opinion that it could not be done because of inadequate infrastructure.

### 3.2 Level of scientific literacy

Acquisition of research data related to scientific literacy skills in each aspect of knowledge and scientific competence is obtained by calculating the percentage of achievement of the test results for the aspects of knowledge and competence. The percentage of attainment of scientific literacy skills per indicator in the aspect of knowledge is presented in Figure 3.

![Level of Scientific Literacy](image)

Fig. 3. Level of scientific literacy
Mastery of science literacy skills is influenced by several factors, including the science learning model applied by the teacher in building knowledge concepts. A learning climate that is able to arouse students' curiosity and scientific attitudes regarding learning topics and encourages students to solve problems presented by the teacher is believed to be able to build a scientific process which is part of the aspect of scientific literacy competencies. One of the learning models suitable for science learning is the discovery model which uses the steps of the scientific method in building knowledge concepts. Science literacy skills also include the ability to understand Nature of Science which is in line with the concept of science inquiry skills such as designing experiments, collecting and analyzing data, and drawing conclusions drawn based on scientific evidence.

One of the science learning activities that encourage students to be able to construct their own knowledge is by applying learning methods based on discovery activities based on students' natural intelligence. Through these activities carried out in science learning, students can be able to plan their learning, carry out learning, and evaluate their learning independently. Scientific attitude is an activity which includes observation, finding problems, investigating books and other sources, planning investigations, conducting experiments, collecting data, analyzing data and interpreting, proposing solutions, explaining and presenting the results of investigations (National Research Council in Tatar, 2011). So, students' scientific literacy skills in the aspects of knowledge and scientific competences can be optimized through the application of discovery-based learning.

4 Conclusion

Based on the results of the research that has been done, it is concluded that the majority of teachers support the development of learning models to improve students' scientific literacy. The initial survey of the average scientific literacy abilities in the aspects of context, knowledge, competence and attitudes with the "good" achievement category. However, it is necessary to develop an innovative and effective learning model to further improve students' scientific literacy from good to very good categories.

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Conceptualization (AS, KH); Research materials preparation (DS); Methodology (AS); Data collecting (AS, KH); Data analysis and visualization (AS, DM. T); Writing—original draft (AS); Presentation (AS).

References

**The Pharmacist-Patient Communication Model in the Chronic Disease Management Program**

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**Abstract.** This research was conducted at two Community Health Centers (hereafter Puskesmas); Muntilan and Tempuran. They are parts of the healthcare system in Magelang Regency, Indonesia. In analyzing the phenomenon, the researchers adopted the Patient-Centered Communication proposed Debra Roter and Judith Hall. The Patient-Centered Communication describes a patient-centered communication model that includes four key elements: data collection, patient education and counseling, communication that builds partnership, and emotional response. The methodology of this research was the qualitative method using interactive data analysis techniques. Meanwhile, data triangulation was used as the data validity technique. The result showed that the pharmacist's communication model with Prolanis patients in Magelang Regency, especially at the two observed Puskesmas, had unconsciously applied the Patient-Centered Communication model. These were identified based on finding. The four elements of the Patient-Centered Communication model were all there. The two elements that stood out were education and counseling and partnership-building communication. Meanwhile, the elements of data collection and emotional responsiveness were found at the beginning and the end of the conversation.

**Keywords:** Patient-Centered Communication, Prolanis, Puskesmas

1 **Introduction**

Based on the Central Java Province Health Profile Data in 2019, there are 13.2% of the total healthcare services in Magelang Regency are treating hypertension while 62.5% of them are treating Type 2 Diabetes Mellitus (henceforth T2DM). This means that the number of hypertension patients in Magelang Regency is at a moderate level and the number of T2DM patients tends to be high [1].

The Prolanis aims to invite chronic disease patients who visit the Level I Healthcare Facilities (Faskes Tk. I), in this case, the Puskesmas, to have an optimal quality of life. It is indicated with 75% of registered participants have "good" conditions especially for T2DM and hypertension examination. This is done as a step to prevent the complication of the disease [2].

Pronalis service focusing on T2DM and hypertension provides consultation service to monitor medication adherence. This illustrates that the paradigm of pharmaceutical services has
now developed in the patient. According to Samadi in his research, he states that patient-focused pharmaceutical service requires effective communication between pharmacist and patient [3].

Besides, the importance of pharmacist’s communication skill is also stated in the technical guideline for pharmaceutical service standard at Puskesmas which state that to achieve the optimal therapy of a patient, a pharmacist is required to have good communication skill. The communication skill is included in providing recommendations for patient treatment [4]. In counseling practice, the patient-centered communication model is very much needed by the pharmacist [5].

Based on the explanation above, it becomes important for a pharmacist to have communication skills to support pharmaceutical service so that it creates a consultation room to monitor and shape patient awareness in having medication adherence [6]. Consultation or counseling service carried out by a pharmacist has an impact on the level of understanding in Type 2 DM patients [7].

Meanwhile, according to Naughton, there have been many papers examining the patient-centered communication [8]. Some of them are patient communication with a doctor [9] and patient communication with the radiologist [10]. However, there are still relatively few that are specific to the pharmacists [8]. Therefore, it becomes interesting to study the communication model between pharmacy workers and patients in Prolanis in Magelang Regency to have new insights.

Researches discussing the communication between pharmacist and patient have been revealed by several researchers. For example, Olsson et al. in their research result stating that there is only little dialogue between pharmacists and patients discussing medication. Forty percent of the dialogue concerns non-medical matters and nearly half of the meetings are silent [11].

In line with that, there are several ways to analyze the communication between pharmacist and patient. For example, Nakayama et al. analyzed the phenomenon of communication between pharmacist and patient using the Roter Interaction Analysis Sistem (RIAS) [12]. Greenhill et al., on the other hand, used the Calgary-Cambridge Guide. From the result of his research, Greenhill suggested a practical implication that a pharmacist needs to be trained in communication skill including communication used for patient-centered consultation [13].

Naughton in his paper also suggests to use the Calgary-Cambridge Guide to analyze the phenomenon of communication between pharmacist and patient. He also recommends another model called the Expanded Four Habits Model. This model draws on the explicit examples of how to build relationship with the patient, identify the patient problem, explore the patient's medical history, and express empathy to patient. Another model found is PaCT model. PaCT stands for the Patient-Centered Communication Tools (PaCT). It includes 23 clinical communication skills categorized into five "tools". The tools are establishing a connection, exploring and integrating the patient’s perspectives, demonstrating interest and empathy, collaborating and educating, and communicating with finesse) [8].

The phenomenon of communication between the pharmacist and patient in Prolanis Magelang Regency written in this research is analyzed using the theory of Patient-Centered Communication proposed by Debra Roter and Judith Hall. The Patient-Centered Communication is chosen because this model has also been used to analyze the phenomenon of communication between the public health workers and diabetes patients [14].

Patient-Centered Communication describes a patient-centered communication model that includes four key elements namely data collection, patient education and counseling, communication that builds partnerships, and emotional response. These four elements are supported by high context communication which refers to implicit and nonverbal messages [15].
The data collection discussed in the theory is the ability of the healthcare professional to help patient to find out their health codes. Patient education and counseling includes the skill of healthcare professional to help the patient to understand his condition and help him in making decision. Partnership-building communication means helping patients to become more concern of their medical decision and action. The emotional responsiveness refers to the extent to which healthcare professional understands and reflects the patient's emotional expression [15]. This model was chosen to identify the initiation of each communication skill which appears in the conversation between pharmacist and patient in the Prolanis at Puskesmas in Magelang.

2 Method

This is a descriptive qualitative research. It is because the data are description of the pharmacist's communication with patients. The informants were selected using purposive technique by determining two criteria--pharmacists who are in charge of Prolanis and patients of Prolanis. Data in this study was obtained using interview technique involving Prolanis pharmacists two Puskemas, Muntilan dan Tempuran in Magelang, and Prolanis patients. Besides that, the researchers also conducted observation by observing the conversation between pharmacists and patients of Prolanis participants. The data, later on, be validated using triangulation by comparing and combining the results of interview with pharmacists and conversation observation between pharmacists and patients. They were then presented using matrices and were categorized based on the four elements of Patient-Centered Communication. After that, the researchers restore the sorted data to be adjusted based on the problem formulation and problem limitation. The final data was presented narratively and the conclusion was drawn based on the essence of the interview and observation. They were all set to answer the problem formulation which is then synchronized with the real situation that occurred in the field.

3 Results and Discussion

3.1 Research Finding

In the Prolanis program at Puskemas Muntilan and Tempuran, there were 48 communications between pharmacist and patient. Based on the observation, the conversations spoken between the pharmacist and patient are in accordance with the patient-centered communication model proposed by Debra Roter and Judith Hall. All four elements in the Patient-Centered Communication model were shown up implicitly in the conversation between the Prolanis pharmacist and patients. This was because the meeting between Prolanis pharmacist and patients was quite intense and had been a routine. The explanation them is as follows:

a. First element, communication is functioned to gather the data. The process of gathering the data, the communication between pharmacist and patient was only about confirming patient’s identity by asking their names. It was seen from the interaction between the pharmacist and informant 19 and 1.
Table 1. Communication is functioned to gather the data

<table>
<thead>
<tr>
<th>Informant Code</th>
<th>Conversation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Puskesmas Muntilan:</strong> 19, 23, 24, 22, 21, 8, 9, 14, 11, 20, 7, 13, 18, 4, 3, 16, 5, 15, 17, 10, 1, and 6</td>
<td>Message: Digging up identity by calling the patient's name—a pharmacist's conversation with an informant code 19. &quot;Pharmacy 1: Mr. Suhadi, Mr. Suhadi?&quot;</td>
</tr>
</tbody>
</table>
| **Puskesmas Tempuran:** 1, 2, 4, 5, 6, 7, 10, 11, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 25, 29, 30, 34, 37, 38, and 39 | Message: Exploring identity by calling the patient's name and address For example, a pharmacist's conversation with a code 1 informant. "Pharmacy 1: Bu Saripah, Kebon Agung yes?"

Source: Communication Observation Data

According to Informant I, a Prolanis pharmacist, the data collection occurring in the communication between a pharmacist and a patient is not very in-depth because the patient had had communication with the doctor before. The communication of a pharmacist and a patient happens afterward that. This can be seen in the interview with Informant I as follows:

"It's usually from the doctor. The doctor asks the patient about what they feel and prescribe the medication. After that, the patients bring the prescription to us. We'll give him medicines based on the prescription written by the doctor." (Source: interview with Informant I)

It was explained by the patient of Prolanis at Puskesmas Tempuran with informant code 21, that he told the doctor about what they felt.

"The medicine given is always the same. If there is a side effect like cough or dizziness, I will tell the doctor." (Source: interview with Informant 21 in Javanese language).

b. Second element, communication is used to make a personal connection between the pharmacist and the patient. The personal connection among them is formed naturally. It is because Prolanis program has regularly scheduled and is quite intense.

Table 2. Communication is used to make personal connection among them

<table>
<thead>
<tr>
<th>Informant Code</th>
<th>Conversation</th>
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<tbody>
<tr>
<td><strong>Puskesmas Muntilan:</strong> 19, 23, 24, 22, 21, 8, 9, 14, 11, 20, 7, 13, 18, 4, 3, 16, 5, 15, 17, 10, 1, and 6</td>
<td>Asking signature of a referral letter from informant Code 23. &quot;Pharmacy 1: Pak Tri Ilham! Mr. Tri Ilham? Please, sign here. Where is it, here? Pharmacy 1 :Yes. Please sign here, too&quot;</td>
</tr>
</tbody>
</table>
| **Puskesmas Tempuran:** 1, 2, 4, 5, 6, 7, 10, 11, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 25, 29, 30, 34, 37, 38, and 39 | Asking signature of a referral letter from informant Code 23. "Pharmacy 1: Pak Tri Ilham! Mr. Tri Ilham? Please, sign here. Where is it, here? Pharmacy 1 :Yes. Please sign here, too"

Source: Communication Observation Data

From the interview, Informant I state that the partnership-building communication element can arise from good, personal relationship between the pharmacist and patient.

"It is usually you create your own. Either we start first or the patient starts first. Yes. We are more familiar because we must know the patient's condition as well. Sometimes, we are very good at joking, some are not hehe (chuckling)." (Source: interview with Informant I)
It was also stated by Informant code 21 that the pharmacist is friendly to patient. They are also able to guide the patient to be active for his medical action even it is only about the administration.

“The pharmacist is very carefully taking care of elderly patients. They give us directions like "please sign here". I am old, sometimes I do not understand and forget what I must do.” (Source: interview with Informant code 21 in Javanese language).

c. Third element, communication has an educational value for the patient. This educational value covers how to take the medicine, its composition or substance, and the side effect. This conversation happens but not so often. It is because the patient has already known that information in the beginning of their treatment. The communication can reoccur if there is a change of medicines or how to take them.

<table>
<thead>
<tr>
<th>Informant Code</th>
<th>Conversation</th>
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<tbody>
<tr>
<td><strong>Puskesmas Muntilan:</strong> 19, 23, 24, 21, and 17</td>
<td>Communication is about the medication, the type of the medicines, how to take them, etc. This is as what is stated by Informant code 23. &quot;Pharmacy 1: There are two kinds of medicines, sir. Patient: Alright. Pharmacy 1: Take them after a meal.”</td>
</tr>
<tr>
<td><strong>Puskesmas Tempuran:</strong> 1, 6, 7, 10, 13, 17, 19, 18, and 23</td>
<td>Communication is about the medication, the type of the medicines, how to take them, etc. This is as what is stated by Informant code 13. &quot;Pharmacy 1: Please take this medicine first, Ma'am. Patient: Alright. Pharmacy 1: Please directly take two pills. Patient: Very well. Yes.Pharma 1 : Take them before a meal”</td>
</tr>
</tbody>
</table>

Source: Communication Observation Data

A pharmacist knows the fact that not all medicines are same. There are some different aspects of different medicines. That is why a pharmacist thinks he needs to give information of the prescribed medicines. In this situation, the element of education and counseling arises.

"There are some patients who still do not understand also about the medication, so we inform them how to take them and when to take them to avoid misleading because there is a patient taking his medicine by neglecting the right time to take them” (Source: interview with Informant I)

Informant I think that it is important for the patients to improve their medication adherence and to take the medicine regularly.

"The important thing is that we always remind patients. We always inform how to take the medicines so that they can take them safely and regularly.” (Source: interview with Informant I)

The information obtained from Informant I is also supported by informant with code 21. He states that the pharmacist gives directions about how to take the medicines as follows:

“Yes. That's true (telling us, the researchers, about the procedure of taking the medicines) for example this (showing the medicine) should be taken at night, this one (showing us another medicine) is at noon, and it is sublingual.” (Source: interview with Informant code 21 in Javanese).
He also states that the pharmacists are friendly to patients. They are able to direct the patient to be active in his medical actions even it is only the administration.

“Pharmacists should be careful in taking care of elderly patients. They must give directions such as "Please sign here". I am old, so sometimes I do not understand or forget what to do.” (Source: interview with Informant code 21 in Javanese language).

d. The last element, communication is used as a means of expressing emotion. Nonverbal communication like smiling, diction, intonation, showing sympathy to the patients.

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Puskesmas Muntilan: 8, 9, 14, 11, 20, 13, 3, 16, 5, 17, 10, 1, and 6</td>
<td>Communicate and respect by expressing gratitude, saying good bye and facial expression like smiling. It is just like what is said by the informant code 8. Patient: Thanks you. Pharmacy 1: You are welcome. Patient: Hehehe (chuckling).</td>
</tr>
<tr>
<td>Puskesmas Tempuran: 1, 2, 10, 11, 19, 21, 22, 25, 29, and 30</td>
<td>Communicate and respect by expressing gratitude saying good bye and facial expression like smiling. It is just like what is said by the informant code . &quot;Patient: Yes, thank you. Pharmacy 1: Alright.&quot;</td>
</tr>
</tbody>
</table>

Source: Communication Observation Data

In the fourth element, the emotional responsiveness from pharmacist to patient is built implicitly when the pharmacist notices the changes that occur in the patient's drug treatment.

"Yes (we communicate with the patient responsibly). Especially about dosage change. When the patient's condition is good, the dosage decrease and when the patient's condition worse the dosage increases. (Source: interview with Informant I).

Seen from data, the communication between pharmacist and patient in Prolanis program is at the interpersonal communication level. The message delivered by the pharmacist is easily understood by the patients. It is because the pharmacists use simple language. Thus, conversations can be developed in a flexible, friendly, and familial way.

3.2 Discussion

Communication between the pharmacist and patients in Prolanis program at two Puskesmas, Muntilan and Tempuran in Magelang Regency, is unconsciously oriented towards the patient-centered communication. The patient-centered communication model emphasizes implicit messages which can hopefully form a personal relationship between the pharmacist and the patient. Our findings in patients with chronic disease suggest that they require motivational intervention to manage their socio-emotional problems, quality of life and perception of the disease to the problem of drug therapy interactions [16]–[19].

Meanwhile, there is an element of the patient-centered communication model in this research that appear but is not deep. It is the data gathering element. The data gathering shows up only little because the communication between pharmacists and patients in Prolanis program is not the primary interaction. On the other hand, there are three elements of patient-centered communication that stand out verbally and implicitly. They are communication for patient
education and counseling, communication with emotional responsiveness, and communication that builds partnership. In gathering the patient’s data, even though the patient has informed the doctor about what he feels, it is better if the pharmacist also knows it. The hope is that the pharmacist will also have data about the patient’s real condition so that it creates consultation room that enhances the understanding and medication adherence of the patient.

Pharmacist communication with Prolanis members at two Puskesmas in Magelang Regency, however, has fulfilled the elements of patient-centered communication. According to Naughton, those elements include openness and clarity in telling what they feel and being a good listener [8]. Openness refers to how the patient feels the pharmacist friendly service. A pharmacist also plays a role as a good listener when he finds a patient who is confused about what medicine he should take instead of the drug that is not available in stock. In addition, the patient also feels helped by the pharmacist for their explanation of how to take the medicine, its side effect, and so on. It can be interpreted that the pharmacist has practiced the concept of clarity in revealing the health problems.

Based on the discussion, the researchers can reveal that the communication model of the pharmacist and patients of Prolanis program at two Puskesmas in Magelang Regency as follows: (1) the communicator is the pharmacist whereas the communicants are the patients, (2) the communication between them emphasizing the education and counseling and implicit message of building partnership with full of sympathy and empathy. It creates a good connection between them. Another supportive aspect is that they communicate quite intense. This is in line with Little John et al. who state that patient-centered communication is functioned to build a connection among the healthcare professional and his patients:

“Our relationship influences our health behaviours by showing what is expected and also by encouraging positive and negative behaviours. This section explores four theories of how social relationships are related to health: (1) theory of normative social influence; (2) social support theory; (3) patient-centered communication; and (4) structurational divergence theory” [15]

However, the patient-centered communication model between the pharmacist and the Prolanis patients do not emphasize the message exchange about sharing problem and solution between them as in Utrecht’s Model for Patient centred Communication in the Pharmacy [20] and A Person’s-Centered Communication and Person’s-Centered Communication Reflection Model [21]. After finding and discussing the fact that there are some communication model between the healthcare professional and theirs patients, the pharmacists really need communication skill. This makes communication skill often be offered in pharmaceutical curriculum, patient-centered communication is one of the offered models [22][23]. The patient-centered communication model, if it is well applied, can increase patients’ satisfaction and belief to the healthcare professionals [24].

4 Conclusion

The patient-centered communication model applied to the Prolanis program at Muntilan and Tempuran Puskesmas is suitable for building personal relationships between pharmacists and patients. This model emphasizes the process of exchanging messages with educational and counseling values, building personal relationships, expressing sympathy (emotions), and implicit data gathering. Communication skills training for prospective pharmacists needs to be
provided. Pharmacists also need to know the various kinds of communication models that can be applied in the context of pharmacist-patient communication.

Acknowledgement

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References


Entrepreneurial Leadership and Organization Innovation: Effect of Knowledge Management and Organizational Climate

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Abstract. The purpose of this paper is to examine the effects of entrepreneurial leadership and knowledge management on organizational innovation of small-medium enterprises (SMEs) as well to determine whether organizational climate moderates the mediating effect of knowledge management in the entrepreneurial leadership and organizational innovation relationship. The study was carried out on the base questionnaire survey among 115 SME owners of Magelang. The analysis tool uses Structural Equation Modeling (SEM) in testing hypotheses and through the Warp PLS program. The empirical findings indicate that entrepreneurial leadership and knowledge management positively influence organizational innovation. But contrary to the prediction, the result indicates that the moderation and moderated mediation relationship are weaker under an organizational climate.

Keywords: Entrepreneurial leadership, knowledge management, organizational innovation, organizational climate

1 Introduction

Organizational innovation in small and medium enterprises is very important. According to Wang and Wang [41], organizational innovation will enhance organizational performance and competitive advantage [40]. Of course, small and medium enterprises that are unable to adapt to the environment through innovation, the survival of these organizations can be threatened. Several studies have explored related to organizational innovation [1][9][16]. Organizational innovation is the process of creating ideas, new processes, and new products related to organizational sustainability. Innovation needs to be managed in accordance with the structure, culture and logic of the organization coupled with the right strategy [30], thus increasing efficiency and performance [12].

Organizational innovation is also the ability to respond to internal and external opportunities, through creative efforts to introduce new ideas, processes, or products and services. Employee engagement is a key factor in organizational innovation, particularly in small and medium enterprises, through creative contributions to process, product and organizational development [7]. Spread of creative ideas from employees for continuous improvement of organizational performance. This process can be seen as the evolution of organizational integration, and technology with a series of iterative activities [2], such as the search, selection, application of new innovative ideas into processes, products and
organizations. Employee creativity and innovation in small and medium enterprises requires encouragement from creative leaders [2]. According to Bagheri and Harrison [4], a creative leader is identified with leadership who has an entrepreneurial spirit. This leadership emphasizes more on basic characters, such as a vision that is far ahead and used as a driver of change and combines various resources to get something new. This type of leadership is needed in an organization to anticipate various changes, especially in small and medium enterprises.

The process of transforming entrepreneurial leadership in encouraging organizational innovation requires good knowledge management [12]. According to Kmieciak and Michna [22], knowledge management is the process of transforming information and intellectual assets into enduring value in an organization. A good knowledge management system will ensure the proper application of knowledge, thereby increasing ideas, innovation, thinking, competence and expertise that have an impact on organizational effectiveness. The ability to transfer knowledge, of course, requires intelligent leadership, so that it can transform organizational values in subordinates. When a creative leader is accompanied by good share cognitive abilities to subordinates, a high level of innovation is encouraged in an organization. Of course, a leader's expertise in transforming intellectual assets is key in an organization.

The success of a leader's knowledge transformation process also requires a supportive organizational climate [26]. Organizational climate will determine motivation and perceptions of values in the organization. Of course, the transfer of knowledge of the leader to his subordinates is effective, if the perceptions and values are in accordance with those of the subordinates so as to encourage organizational innovation effectively [14][21][29]. This shows that, the organizational climate determines the success process in transferring knowledge to organizations, especially in small and medium enterprises [34].

Various empirical evidence shows that, entrepreneurial leadership has an effect on organizational innovation [1][2][3][18][27][33]. However, different results indicate that entrepreneurial leadership has an effect on the innovation process but not on innovation performance [13]. Entrepreneurial leadership only affects the process of achieving innovation, but does not necessarily result in effective innovation. This process certainly does not have an effective impact on the organization. Seeing the context, according to Chen, Huang, and Hsiao [6], knowledge management is a key factor in encouraging innovation and is also determined by the role of creative leadership in organization [4]. In addition, organizational climate also determines the successful process of knowledge transformation in organizational innovation [14][16][18][21][26][34].

There are several interesting reasons for researchers to study this research. First, the influence of entrepreneurial leadership on organizational innovation still produces controversial results [1][2][3][13]. Second, research places knowledge management as a mediating variable and organizational climate as a moderating variable, because the organizational innovation process depends on the leader in the transformation process and it depends on the organizational climate.

2 Literature Review

2.1 Organizational innovation

Organizational ability to innovate, one of the conditions for the successful use of new resources and technology. Organizational innovation is an idea, item, event, method, which is
felt or observed as something new to a person or group of people (society), whether it is in the form of inventions or disk conversion [6]. While, Hueske, Endrikat, and Guenther [19] shows that, organizational innovation as the successful application of creative ideas in companies, organizational mechanisms to adapt in dynamic environments. Therefore, the organization must be able to create assessments as well as new ideas and offer innovative products. Innovation is a tool for developing organizations, through the introduction of new technologies, new applications, services, development and new organizational structures. Integration of various aspects of innovation, thus creating organizational innovation. The innovation that occurs in an organization is a process of progress of the organization, but various obstacles and obstacles will occur when the innovation starts to enter the organization. By understanding the innovation process in the organization, it will be able to reduce organizational shock in implementing innovation diffusion.

According to Damanpour [8], organizational innovation as the development and use of new ideas or behaviors related to new products, services, markets, and administration. Osborne and the innovation process in three main stages, namely the invention stage, implementation stage, and diffusion stage. While, Hamdoun et al. [16] simplifies the innovation process in three main steps, namely producing ideas, evaluating ideas, and implementing ideas. Broadly speaking, the stages of innovation are formulated into three main stages, namely the process of initiation, adoption, and implementation.

2.2 Entrepreneurial leadership

Entrepreneurial leadership is the ability of a leader to organize a group of people who work in their organization to achieve common goals, through proactive behavior, dare to take risks, innovate to take advantage of opportunities, take personal responsibility, and manage change for the benefit of the organization [33]. Based on this definition, entrepreneurial leadership includes three dimensions, namely opportunity seekers, risk takers, and resource allocators. Integrating these three dimensions, entrepreneurial leadership is effective in driving organizational innovation.

Entrepreneurial leadership is also capable of being a mentor to subordinates related to organizational development, both in the technical and organizational management fields [33]. Entrepreneurial leadership always awakens individuals, teams and organizations, to achieve goals in the organization. Furthermore, entrepreneurial leadership always instills confidence to think, behave and act in an entrepreneurial way, the development of the organization and the stakeholders involved. Of course, this ability is very suitable for leadership in small and medium enterprises with consideration of the low ability of resources, both human and other resources. In addition, entrepreneurial leadership always involves employees through the contribution of energy and thoughts, so that the company's targets can be realized collectively.

Empirical evidence shows that entrepreneurial leadership has an effect on organizational innovation [1]-[3][18][33]. This shows that, when a leader has the courage to take risks, involve and guide employees, it will encourage subordinates to increasingly innovate in the organization, through the creation of new ideas and ideas to develop the organization. Based on this concept, it is hypothesized as follows:

H1. Entrepreneurial leadership affects organizational innovation
2.3 Knowledge management

Knowledge management is a process that helps organizations identify, select, organize, disseminate and transfer important information and experiences that are part of the organization [38]. Knowledge Management helps absorb knowledge and insights to maintain organizational sustainability. According to Nonaka and Takeuchi [28] knowledge is dynamic and can change form from tacit to explicit or vice versa. Tacit knowledge is a form of knowledge that is contained in a person's brain or mind according to the person's own understanding and experience. Usually this knowledge is unstructured, difficult to define and convey in formal language to others and its content includes personal understanding. Meanwhile, explicit knowledge is knowledge that has been collected and translated into a form of documentation, making it easier for others to understand. This knowledge is formal in nature and easy to share with others in the form of documentation, through books, articles and journals without having to come directly to teach that person.

Knowledge management involves three main factors, namely people, process and technology [12]. These three factors operate in an integrated manner. In principle, every organization must do Knowledge Management either consciously or not, so it must be done in a planned manner. When the organization does not understand this context, it will cause ineffectiveness and inefficiency on all fronts. Moreover, in small and medium enterprises, the competition is so tight. Knowledge management is not something better, but about knowing how to do something better.

The knowledge transformation process depends on the role of entrepreneurial leadership. When the creative leader, through the appearance of new ideas, will encourage a good knowledge management process. Empirical evidence shows that entrepreneurial leadership has an effect on knowledge management [5][31]. Furthermore, with a good knowledge transformation process, subordinates will create creative ideas so as to encourage good organizational innovation. The results showed that knowledge management has an effect on organizational innovation [6][9][12][16][22][25][32][38]. Based on this concept, it is hypothesized as follows:

**H2. Entrepreneurial leadership affects knowledge management H3. Knowledge management affects organizational innovation**

2.4 Organizational Climate

Organizational climate influences human resource practices and policies accepted by organizational members. Every organization will have a different organizational climate, determined by the diversity of jobs designed within the organization, or by the nature of the individual. According to Olsson et al. [29] Organizational climate as a form of collection and environmental patterns that encourage the emergence of motivation and perceptions that can be assessed, so that it has a direct influence on the performance of organizational members. An open organizational climate encourages employees to express interests and dissatisfaction without fear of retaliation and concern, thus encouraging members of the organization to have a high level of confidence and believe in fairness of action. Of course, it is important to create an organizational climate in organizations, especially in small and medium enterprises because it is used as the basis for determining the behavior of subsequent members.

Organizational climate will determine the process of transforming knowledge from leaders to organizational innovation [11][29][34]. When the organizational climate is supportive, the knowledge transformation process will run well. Knowledge management is formed a
conducive learning environment, so that employees are motivated to learn continuously, utilize the information or knowledge provided by the organization, and develop their individual knowledge. Through these conditions, of course, it will facilitate the knowledge management process and accelerate the implementation process in organizations, especially in small and medium enterprises, so that institutionalizing and distributing knowledge becomes easier. Based on this concept, it is hypothesized as follows:

**H4. Organizational climate moderates the influence of entrepreneurial leadership on knowledge management**

**H5. Organizational climate moderates the influence of knowledge management on organizational innovation**

Schematically, the influence of entrepreneurial leadership and knowledge management on organizational innovation is moderated by organizational climate in Figure 1.

![Fig. 1. The research models](image)

### 3 Methods

#### 3.1 Samples and procedures

The selection of the research setting is based on previous research, namely on small and medium enterprises [22]. This population is likely to have high innovation power, to maintain the continuity of its business. The population of this study is the leaders of Small and Medium Enterprises in the Magelang region. This research is a group analysis unit and the sample selection method is non-probabilistic sampling with purposive sampling technique [36]. The criteria in this study are leaders of small and medium enterprises with more than five employees [39].

The distribution of questionnaires in this study were 150 respondents and 133 returned (response rate 89%), but those that can be used in this study are only 115 questionnaires. The remainder cannot be used due to incomplete answers and data. Based on this amount, this study fulfills the minimum sampling limit. Now and Bougie [17] say that, a sample size of more than
30 and less than 500 is appropriate for research. Furthermore, Iovino and Tsitsianis [20] the
minimum sampling limit is 100 respondents. A sample size that is too large or small will not
help in the study.

The history of education consists of high school as many as 43 respondents, academies as
many as 38 and Bachelor as many as 32 respondents. Furthermore, there are 2 respondents who
filled others, namely junior high school educated. The age of respondents is less than 24 years
as many as 12 respondents and the rest are more than equal to 24 years.

### 3.2 Operational definition and variable measurement

Organizational innovation is an idea, item, event, method, which is felt or observed as
something new to a person or group of people (society), whether it is in the form of inventions
or disk conversion [6]. This variable is measured by 4 question indicators that are adopted from
Kmieciak, Michna, and Meczynska [23] with a five Likert scale, from 1 for strongly disagree to 5 for strongly agree. All indicators on the research variables showed validity and the results of the reliability test in this study showed Cronbach alpha of 0.799.

Entrepreneurial leadership is the ability of a leader to organize a group of people who work
in their organization to achieve common goals, through proactive behavior, dare to take risks,
novate to take advantage of opportunities, take personal responsibility, and manage change
for the benefit of the organization [33]. This variable is measured by 8 question items with those
developed by Renko, El Tarabishy, Carsrud, and Brännback [35], the Entrepreneurial
Leadership Questionnaire with a five Likert scale, from 1 for strongly disagree to 5 for strongly agree. All indicators on the research variables showed validity and the reliability test results in
this study showed Cronbach alpha of 0.783.

Knowledge management is a process that helps organizations identify, select, organize,
disseminate and transfer important information and experiences that are part of the organization
[38]. This variable is measured by 5 question indicators that are adopted from Lee, Lee, and
Kang [24] with five Likert scales, from 1 to strongly disagree to 5 to strongly agree. All indicators on the research variables show validity and the reliability test results in this study show Cronbach alpha of 0.784.

Organizational climate as a form of collection and environmental patterns that encourages
the emergence of motivation and perceptions that can be assessed, so that it has a direct influence
on the performance of organizational members [29]. This variable is measured by 5 question
indicators that are adopted from Shadur, Kienzle, and Rodwell [37] with a five Likert scale,
from 1 for strongly disagree to 5 for strongly agree. All indicators in the research variables
showed validity and the results of the reliability test in this study showed Cronbach alpha of
0.895.

### 3.3 Analysis tools

The analytical tool in this study uses Structural Equation Modeling (SEM) in testing
hypotheses and through the Warp PLS program [15]. Determining whether a model is fit or not
in this research uses several measures, namely the average path coefficient (APC), average R-
square (ARS) and average variance inflation factor (AVIF). APC and ARS values must be less
than 0.05 and AVIF as an indicator of multicolinearity must be greater than 5.
4 Results and Discussion

4.1 Result

The results of the research model test show that the indicators of the model are fit and have been met, namely the APC and ARS are significant with a p value of less than 0.05. Likewise, the AVIF indicator is 1.138 and meets the requirements below 5. This result is strengthened by an adjusted R square (R2) value of 0.27, which means that the variation of organizational innovation variables (OIN) can be explained by variations of the three independent variables, namely entrepreneurial leadership (EL), knowledge management (KM), and organizational climate (OC) by 27%, while the rest is explained by variables outside the model.

The direct effect of entrepreneurial leadership (EL) on organizational innovation (OIN) shows significant results ($\beta = 0.20; p < 0.01$), so that hypothesis 1 (H1) is supported. Furthermore, the influence of entrepreneurial leadership (EL) on knowledge management (KM) shows a significant result ($\beta = 0.48; p < 0.01$) so that hypothesis 2 (H2) is supported. Furthermore, knowledge management (KM) on organizational innovation (OIN) also shows significant results ($\beta = 0.39; p < 0.01$), so hypothesis 3 (H3) is supported. In addition, the moderating effect of organizational climate on entrepreneurial leadership (EL) on knowledge management (KM) shows insignificant results ($\beta = 0.13; p > 0.01$) and the moderating effect of organizational climate on the influence of knowledge management (KM) on organizational innovation (OIN) shows insignificant results ($\beta = 0.03; p > 0.01$). This means that hypothesis 4 (H4) and hypothesis 5 (H5) are not supported. The overall test is shown in Figure 2.

![Fig. 2. Full Model](image)

4.2 Discussion

This study examines the effect of entrepreneurial leadership on organizational innovation that is mediated by knowledge management and the moderating effect through organizational
climate. The test results show that, the influence of entrepreneurial leadership on organizational innovation is significant, so that hypothesis 1 (H1) is supported. These results are consistent with research Akbari et al. [1]; Paudel [33]; Huang et al. [18]; Bagheri [2]; and Bagheri and Akbari [3] which shows that entrepreneurial leadership affects organizational innovation. When a leader has a high creative spirit and is brave enough to take risks, then encouraging organizational innovation is better. Moreover, small and medium enterprises really need a leadership style that has this creative power, because competition is so competitive and has limited resources. In addition, leaders must also be able to take advantage of existing opportunities to maintain the sustainability of the organization. Entrepreneurial leadership is always proactive in environmental dynamics, so that it can have a very good impact and differentiation on other organizations [5]. The existence of these new breakthroughs, so that organizations are more dynamic and responsive to environmental responses. Of course, leadership in small and medium enterprises is not only an agent of change, but also leads the change itself. Strategic leadership that has a high sense of business and sense of change, is able to act proactively, creatively and innovatively is what drives organizational innovation.

The results of testing the influence of entrepreneurial leadership on knowledge management are significant, so that hypothesis 2 (H2) is supported. These results certainly support the research Chaston [5] and Overall [31] which shows that entrepreneurial leadership has an effect on knowledge management. When a leader shows proactive and creative behavior, the knowledge transformation process will be better. This means that subordinates can quickly understand what the leadership says, so that organizational goals can be achieved. In addition, entrepreneurial leadership always involves a new model of thinking and action, starting with a fundamentally different world view of business and applying illogical decision making, also delivering flexible understanding of subordinates. This understanding, accelerates the process of knowledge transfer in organizations. The thinking principle that develops cognitive ambidexterity also leads to a better knowledge transformation process. This principle further emphasizes that, entrepreneurial leaders must rely on a varied analytical approach by complementing thought and action to create and implement solutions in a socially, environmentally, and economically sustainable manner. In addition, entrepreneurial leadership also uses predictive logic, the use of traditional analytical approaches, is an extension of the scientific method to think, evaluate, and then act to change an organization towards the goals set in the process of conveying knowledge to subordinates. This capability is very effective in the knowledge transformation process in organizations. environment, and a sustainable economy. In addition, entrepreneurial leadership also uses predictive logic, the use of traditional analytical approaches, is an extension of the scientific method to think, evaluate, and then act to change an organization towards the goals set in the process of conveying knowledge to subordinates. This capability is very effective in the knowledge transformation process in organizations. environment, and a sustainable economy. In addition, entrepreneurial leadership also uses predictive logic, the use of traditional analytical approaches, is an extension of the scientific method to think, evaluate, and then act to change an organization towards the goals set in the process of conveying knowledge to subordinates. This capability is very effective in the knowledge transformation process in organizations.

The results of testing the influence of knowledge management on organizational innovation are significant, so that hypothesis 3 (H3) is supported. These results certainly support the research Chen et al. [6]; Ferraresi et al. [12]; Kmiecik and Michna [22]; Slavković and Babić [38]; de Zubiri et al. [9]; and Hamdoun et al. [16] which shows that knowledge management affects organizational innovation. When the knowledge transformation process is well understood by subordinates, then innovation in the organization is good too. The knowledge
transfer process is in the form of tacit knowledge and explicit knowledge. An employee is able to understand the process of transferring knowledge independently and is able to properly document, will encourage creative and innovative ideas in the organization. Good knowledge management helps to obtain potential sources of information, so as to develop self-knowledge and increase the effectiveness of individual and organizational work. This ability is needed, especially for employees of small and medium enterprises.

The results of testing the moderating effect of organizational climate on the influence of entrepreneurial leadership on knowledge management are not significant and the moderating effect of organizational climate on the influence of knowledge management on organizational innovation is also not significant, so hypothesis 4 (H4) and hypothesis 5 (H5) are not supported. The results of this study are different from the research Olsson et al. [29]; Mafabi et al. [26]; and Donate and Guadamillas [10] which shows that the organizational climate does not moderate the influence of entrepreneurial leadership on knowledge management and on the influence of knowledge management on organizational innovation. This shows that, the organizational climate does not necessarily provide a good impetus for the knowledge transfer process in small and medium enterprises. According to Olsson et al. [29], organizational climate is the condition, condition and characteristics of the workplace environment which characterizes an organization which is formed from the attitudes, behavior and personalities of all members of the organization. Based on this concept, of course, the organizational climate requires a good understanding of a subordinate if it is to be successful. However, the low level of understanding of human resources in small and medium enterprises has no impact on organizational innovation. This is possible because the resources in small and medium enterprises are still low and the work atmosphere has not yet been formed, as in advanced organizations.

5 Conclusions

This study proposes 5 (five) hypotheses, but 3 (three) hypotheses are supported and 2 (two) hypotheses are supported. The influence of entrepreneurial leadership affects organizational innovation and knowledge management, so that H1 and H2 are supported. In addition, knowledge management also affects organizational innovation, so that H3 is also supported. Meanwhile, the moderation effect does not encourage the influence of entrepreneurial leadership on knowledge management and the influence of knowledge management on organizational innovation. This shows that hypothesis 4 (H4) and hypothesis 5 (H5) are not supported.

Based on the above conclusions, this study provides several recommendations. First, entrepreneurial leadership is very important in encouraging organizational innovation, so that creative and proactive leadership and seeing opportunities is needed in small and medium enterprises. In addition, conveying these ideas and ideas is expected to go through the process of good knowledge transformation, thus helping organizational innovation effectively. Second, the organizational climate in small and medium enterprises is still low, so that the perception of understanding of the goals and vision of the organization must be the same between leaders, subordinates and stakeholders, so that the organizational climate will be well formed in small and medium enterprises. Furthermore, respondents in this study answered self-report questionnaires, it is possible to have common method biases.
References


Can Obedience to Accounting Rules Moderate the Effect of Individual Morality, Internal Control and Fraud of Financial Statement?

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Abstract. The purpose of this study was to examine the relationship between individual morality, internal control and fraud of financial statement with the obedience of accounting rules as a moderating variable. The sampling technique of this study was purposive sampling. This paper uses a Moderated Regression Analysis (MRA) method with total observation to 21 subdistrict and 5 village at Magelang district. The finding of this paper shows has not the association between internal control, individual morality and fraud of financial statement. Next, when this paper interact individual morality, internal control and fraud of financial statement is not moderated by obedience to accounting rules. The significant positive relationship between obedience to accounting rules and financial of financial statement. This findings show that obedience to accounting rules is an important role between internal control and fraud of financial statement. These findings are expected to inform regulatory bodies obedience on the role of obedience to accounting rules in financial reporting, which can assist in regulatory reforms and inform the Good Corporate Governance.

Keywords: Fraud of Financial Statement, Individual Morality, Internal Control, Obedience to Accounting Rules.

1 Introduction

Each business transaction is susceptible and have a risk of fraud. This condition indicates that none of companies invulnerable to fraud [1] and [2]. Post-reform, there has been a phenomenon in the development of the public sector in Indonesia is the strengthening of demands for accountability on public institutions, both at central and regional levels [3]. The existence of a decentralized system of state financial management down to the regional level has led to an increase in accounting fraud. In 2019, Indonesia was ranked 85th out of 180 countries, an increase of 2 points from 2018 (the Transparency International Institute Survey that Corruption Perception Index). The corruption case is most common misuse of funds of 154 cases with state losses of Rp 1.2 trillion, inflation (mark-up) as many as 77 cases and extortion as many as 71 cases. The agency recorded the highest number of corruptions is for districts with 222 cases and state losses of Rp 1.17 trillion. This shows the corruption in the financial area is still quite high (IHPS, 2018). Cases of fraud occurring in government Magelang, involving Apparatus Civil State is the procurement of official cars by the staff of the Department of Revenue Financial Management and Wealth Asset (DPPKAD), corruption fines retribution by staff at the Department of Transportation, corruption by the head Disnakertransos against fines
that the vehicle test and creating a fictitious memorandum warrant by the Chief Official Travel DPPKAD. The latest case by the State Civil Apparatus, the construction of a bridge of Rp 90.6 million (www.infokorupsi.com).

Research related to financial statement fraud has been widely studied, but from some of the results of research still found the gaps among others [4], between internal control, of individual morality effect on fraud, [4]-[10]. The difference in this study is to test the compliance of accounting rules as a moderating variable between internal control and morality of individuals to financial statement fraud. Their accounting rules to avoid actions that distorted and detrimental to the organization. Management's compliance with the applicable accounting rules in carrying out accounting activities is expected to reduce the unethical behavior. Accounting standards are arranged to form the basis of the financial statements. Accounting standards consist of guidelines that are used to measure and present the financial statements. Agencies that abide by all the guidelines in measuring and presenting financial statements in accordance with applicable accounting standards will reduce the opportunity gap and employee fraud. Regulation can deter someone from doing something that is not in accordance with the existing rules [11]. Organizational rules serve as a tool to ensure organizational goals are achieved [12].

The purpose of this study was to examine the relationship between internal control, individual morality and fraud of financial statement with the obedience of accounting rules as a moderating variable in the Magelang Regional Apparatus Organization. This study contributes to the implementation of internal control in the public sector. For paktisi can provide relevant evaluation of internal control implemented by local governments, and can as a basis for policy makers in the prevention of fraud in government agencies.

2 Method

The population of this study is the employee in Magelang Regional Apparatus Organization. The sampling technique of this study was purposive sampling, which is a sampling technique using certain criteria. The sample criteria used are (1) head of sub district or head of village, (2) secretary, (3) sub division head, (4) treasurer or financial employee. The sample of this research were 71 usable to the analysis. Data analysis techniques were using descriptive statistics and Moderated Regression Analysis (MRA) [13]. The research model shows as follows number 1:

\[ FSF = a + b_1IM + b_2IC + b_3OAR + b_4IM \times OAR + b_5IC \times OAR + e \] (1)

Notes :
FSF : Financial Statement Fraud
IM : Individual Morality
IC : Internal Control
OAR : Obedience to Accounting Rules

3 Results and Discussion

3.1 Result

The result of descriptive statistic analysis showed in the Table 1.
Table 1. Descriptive Statistic

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Standar deviation</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>IM</td>
<td>3.592</td>
<td>0.495</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>IC</td>
<td>3.507</td>
<td>0.504</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>OAR</td>
<td>3.549</td>
<td>0.501</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>FSF</td>
<td>3.493</td>
<td>0.504</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

Source: Primary Data, 2018

Table 1 presents descriptive data for the sample. The average from 71 respondents to answer statements about internal control, individual morality, obedience to accounting rules and fraud of financial statement are neutral. Table 2 presents the summarized results for our Moderation Regression Analyses (MRA).

Table 2. Moderation Regression Analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Estimated Coefficients</th>
<th>Standar error</th>
<th>t-statistic</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>0.324</td>
<td>0.331</td>
<td>0.979</td>
<td>0.331</td>
</tr>
<tr>
<td>IM</td>
<td>0.072</td>
<td>0.136</td>
<td>0.531</td>
<td>0.597</td>
</tr>
<tr>
<td>IC</td>
<td>0.094</td>
<td>0.128</td>
<td>0.738</td>
<td>0.463</td>
</tr>
<tr>
<td>OAR</td>
<td>0.544</td>
<td>0.131</td>
<td>4.139</td>
<td>0.000</td>
</tr>
<tr>
<td>IM*OAR</td>
<td>0.005</td>
<td>0.043</td>
<td>0.12</td>
<td>0.905</td>
</tr>
<tr>
<td>IC*OAR</td>
<td>0.049</td>
<td>0.044</td>
<td>1.115</td>
<td>0.269</td>
</tr>
</tbody>
</table>

Source: Primary Data, 2018

The results of the regressions used to test our hypothesis. Based on the moderation regression analysis results presented in table 2, we reject H1, H2, H3 that individual morality, internal control and obedience to accounting rules are not negatively associated with financial statement fraud. The result H3 is obedience to accounting rules is positively associated with fraud of financial statement. We also reject H4 and H5 that the obedience to accounting rules has not been found to be moderated between individual morality and internal control with fraud of financial statement.

3.2 Discussion

We have examined the effect of individual morality, internal control, obedience to accounting rules with fraud of financial statement. The results of one hypothesis test is individual morality has not effect on fraud of financial statements. Individual codes of ethics must be made in the organization, and will be a moral compass [14] for all employees who must be express issues and ethical integrity. Someone doing accounting fraud as the biggest cause is individual morality. Fraud is behavior that is unacceptable morally [15].

The result show that the internal controls is not negatively associated with fraud of financial statements. The internal control has not affected on fraud of financial statements in sub-districts and villages in Magelang Regency. This finding implies that internal control in the organization will not affect the chances of fraud in Sub-District offices in Magelang. There is internal control and monitoring of operational activities does not cause fraud. Internal control will be effective and efficient in the organization if all members of the organization are obedient. The based-on fraud triangle theory, the system will direct the organization to achieve the goals. The internal control will function well if there is commitment from all members of the organization [14].
The based-on description statistic that the internal control system in the public sector is not well implemented, can be seen from average answers of respondents netral with the statement items presented.

Fraud in form of corruption does not diminish or recede, but continues to develop systemically, propagating in all sectors and developing the structural system, the existence of a system formed, purposefully or not, tends to encourage people to commit corruption. This condition is caused the legislation has not been sufficient for efforts to eradicate corruption and the synergy and unity of action between law enforcers is still weak and harbors the problem of mistrust. A different and unbalanced system of incentives for officials in the public sector can increase corruption. These findings do not support the theory that internal control can prevent fraud of financial statements [16], and is inconsistent with studies [17], [18] that internal control can reduce fraud and significantly prevent fraud [19].

We also found a positive relationship between the obedience to accounting rules and fraud of financial statement. The obedience to accounting rules can increase fraud. Based of descriptive statistic is average answers of respondents netral with the statement items presented. The existence of financial rules that requires the financial accountability report to be zero or exhausted, it can cause fraud.

The results of the hypothesis test that obedience to accounting rules does not strengthen or weaken the relationship between individual morality, internal control and fraud of financial statements. There are differences tendency of accounting fraud between the individual with low morality and individual with high morality [6]. Someone commits accounting fraud depending on low or high individual morality [6]. Low individual morality has a tendency to commit fraud of financial statements than individual morality high. Kohlberg theory about morality indicates that individual with high morality (post-conventional) has an orientation on ethical principles.

The obedience to accounting rules is not strengthens the relationship between internal control and fraud of financial reporting. Based on the triangle fraud theory, internal control will affect the amount of opportunity to commit financial statements fraud. Weak internal controls can be used as an opportunity to commit fraud. Effective internal controls can protect against theft, embezzlement, misappropriation of assets which are supported by the obedience to accounting rules.

4 Conclusion

This research is conducted to ensure an empirical relationship between the activity of internal control and individual morality with fraud of financial statement at Regional Government Organization of Magelang District. This research is supported by fraud triangle theory which fraud of financial statement is caused by three aspects. Those are pressure, opportunity, and rationalization. A good internal control can function as base to decrease fraud of financial statement. Furthermore, it is also supported by literature review. The result showed that obedience to accounting rules can not moderate the relationship between individual morality, internal control and fraud of financial statement but the obedience to accounting rules become independent variable to fraud of financial statements. This research identified several points that are interesting and also created many new questions that need to be answered by further research. The internal control, individual morality and obedience to accounting rules are important in reduce fraud of financial statement in all Regional Government Organization, so this research need further investigation by expanding sample scope which is chosen and
obtained more direct evidences that are influenced the fraud (for example, information asymmetry, compensation suitability, or unethical behavior).

Acknowledgement

The authors would like to thank the Ministry of Education and Culture of the Republic of Indonesia for their research assistance through the Domestic Postgraduate Education Scholarship which enabled us to conduct this research. Researchers are also grateful to the technicians who have helped collect data as well as reviewers.

References

Spiritual Emotional Freedom Technique (SEFT)  
Therapy in Stress and Traumatic During the Pandemic Covid-19: A Literature Review  

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Faculty of cultural science University of Sebelas Maret, Indonesia²  

Abstract. The Covid-19 that occurred in Indonesia had an impact not only on physical, economic aspects but also resulted in psychological problems such as stress and traumatics on society. It is necessary to make efforts to prevent and control stress and traumatic disorders. Spiritual Emotion Freedom Technique (SEFT) is a therapy developed from spiritual therapy and psychotherapy that can be used to manage stress and traumatic stress. The purpose of this literature review is to provide a description regarding the development of Spiritual Emotional Freedom Technique (SEFT) therapy as a stress and traumatic management therapy during the Covid-19. Database searches via ScienceDirect, Pubmed and GoogleScholar. The keywords used in the search for this article were Spiritual Emotional Freedom Technique (SEFT), Stress, Traumatic, Covid-19 by getting 40 articles and only 6 articles used were used through objective analysis, topic suitability, research method used, size. samples, research ethics, the results of each article, and the limitations that occur. There are effective results of using Spiritual Emotional Therapy Freedom Technique in dealing with stress and traumatics during the Covid-19.  

Keywords: Spiritual emotional freedom technique, Therapy, Stress, Covid-19  

1 Introduction  

The Covid-19 pandemic is a health emergency experienced by all people in the world that has the potential to seriously affect public health, including mental health [1]. The health emergency during the Covid-19 pandemic caused adverse psychological consequences and this lasted a long time due to anxiety, stress, trauma-related illness, large-scale social isolation and also because of information on social media [2], [3]. The results of research conducted by Wang et.al [4] in China with 1210 respondents found that anxiety levels were 30% and depression was 17%. While the results of research by Qiu et. al, the results of a national survey involving 75 more than 50,000 respondents in China, found that nearly 35% of participants experienced symptoms of stress related to trauma with women and young adults showed higher psychological pressure [5], [6].  
The psychological symptoms that arise will interfere with the daily life of the individual. This of course requires action to prevent and control stress and traumatics during the Covid-19 pandemic. Many therapies are used to reduce psychological problems such as stress and
traumatics, one of the therapies that can be used is the Spiritual Emotional Freedom technique (SEFT). Spiritual Emotional Freedom technique (SEFT) is a method that uses the energy in the individual's body to control and eliminate problems experienced.

The results of research conducted by Astuti and Amin show that SEFT therapy can reduce levels of stress and PTSD due to the Merapi disaster, results of research by Dewi and Fauziah on the effect of SEFT therapy on drug users and the results of research by Chodijah, Nurjannah, Yuliyanti states that SEFT therapy can be used as a therapy to overcome anxiety in facing Covid-19 [7]–[9]. SEFT therapy has many benefits that can help people overcome physical and psychological problems. The results of this literature review can be an alternative for nurses and other health workers to overcome psychological problems experienced during the Covid-19 pandemic.

2 Method

The research method used in this literature review uses a comprehensive strategy by searching through the internet. Searching through databases used includes ScienceDirect, Pubmed and Google Scholar during 2020. The keywords used in the search for articles were Spiritual Emotional Freedom Technique (SEFT), spiritual therapy, stress, traumatic, covid-19. There were 40 articles obtained and 6 articles analyzed through objective analysis, topic suitability, research methods used, sample size, the results of each article and the limitations that occurred.

3 Results and Discussion

The results of the literature review obtained can be seen in Table 1.

<table>
<thead>
<tr>
<th>Researcher</th>
<th>Title</th>
<th>Sample</th>
<th>Method</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dubey, et.al</td>
<td>Psychosocial impact of Covid-19</td>
<td>some abstract</td>
<td>Article review</td>
<td>Disease itself multiplied by forced quarantine to combat COVID-19 applied by nationwide lockdowns can produce acute panic, anxiety, obsessive behaviors, hoarding, paranoia, and depression, and post-traumatic stress disorder (PTSD) in the long run.</td>
</tr>
<tr>
<td>Leilei Liang, et.al</td>
<td>The Effect of Covid-19 on Youth Mental Health</td>
<td>584</td>
<td>Cross sectional</td>
<td>Nearly 40.4% the sampled youth were found to be prone to psychological problems and 14.4% the sampled youth with Post-traumatic stress disorder (PTSD) symptoms. Univariate logistic regression revealed that youth mental health was significantly related to being less educated (OR = 8.71, 95%CI:1.97–38.43), being the enterprise employee (OR=2.36, 95%CI:1.09–5.09), suffering from the PTSD symptom (OR = 1.05, 95%CI:1.03–1.07) and using negative coping styles (OR = 1.03,</td>
</tr>
<tr>
<td>Researcher</td>
<td>Title</td>
<td>Sample Description</td>
<td>Method</td>
<td>Output</td>
</tr>
<tr>
<td>---------------------</td>
<td>-----------------------------------------------------------------------</td>
<td>--------------------</td>
<td>--------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Chodijah, et.al</td>
<td>SEFT Sebagai Terapi Mengatasi Kecemasan Menghadapi Covid-19</td>
<td>several participants</td>
<td>Kualitatif</td>
<td>Anxiety can be interpreted as a condition in which the individual who experiences it feels inadequate, helpless and depressed over an object that is specifically unclear. Meanwhile, SEFT is a contemporary therapeutic technique that aims to eliminate or liberate individuals spiritually and emotionally from negative conditions. The results of trials on clients show that by using the proper stages of SEFT therapy, the client's anxiety level decreases, so that it can be recommended to be used more widely in the community, experiencing anxiety due to this covid-19 virus pandemic.</td>
</tr>
<tr>
<td>Hasan, et.al</td>
<td>Mujahadah Al Nafs Among Covid-19 Patients in Quarantine</td>
<td>Several participants</td>
<td>Kualitatif</td>
<td>The results showed that there were 22 types of problematic behaviors exhibited by victims in quarantine place. This negative phenomenon requires a solution. The findings also indicated that there are several spiritual treatment approaches used in quarantine place such as prayers, reciting the al-Quran, fasting, zikir, self-reflection and religious classes.</td>
</tr>
<tr>
<td>Hakhu</td>
<td>Spiritual Approach Model: A Study with Special Reference to Covid-19 in India</td>
<td>116</td>
<td>Survey analysis</td>
<td>The results of the present study highlight that Spiritual Approach Model is still at initial stage. It can be concluded that the state of mind of people of India amidst COVID-19 has a assortment of challenges. The best possible efforts are put in by individuals to carry on with the actions for trying to survive in the present day circumstances. To achieve more peace and devotion, it is suggested that Faith in God has an undeviating bond. Further, as per Figure 4, it is evident that interconnect of Peace Characteristics and Devotion Characteristics has a comprehensive connect with Faith Characteristics which emphasizes to append the conviction to be focused for a belief in retreating of COVID-19 from the globe.</td>
</tr>
</tbody>
</table>

95%CI: 1.00–1.07). Results of this study suggest that nearly 40.4% of the youth group had a tendency to have psychological problems.
Various efforts have been made to eliminate the increasing number of casualties, including through education regarding Corona and transmission, prevention and termination of viral infections through social distancing, washing hands with soap, and keeping activities at home and maintaining body immunity through nutritious eating, intense exercise moderate, and get enough rest. Comprehensive understanding regarding stressors, namely the Corona or Covid virus.19 combined with simple psychotherapy such as relaxation, assist therapy, play therapy, Spiritual emotional Freedom Technique (SEFT) and Islamic therapy through Wudhuk, Prayers and Forbearance to present sakinah in yourself is a wise choice in managing anxious.

3.1. Discussion

Effective management of stress and traumatic problems that occurred during Covid-19 can help people adapt to new changes. The current recommendations that the government has made, such as implementing health protocols, eating nutritious food, exercising and taking care of the psychology are very much needed to prevent the spread of Covid-19. Research on the use of Spiritual Emotional Freedom Technique (SEFT) therapy has been widely explained that this therapy is a holistic therapy which involves spiritual healing and other psychological therapies that can be tested for their effectiveness in overcoming stress and traumatic problems during the Covid-19 pandemic [9]-[11].

The effectiveness of using Spiritual Emotional Freedom Technique (SEFT) therapy can be used as a reference research to be tested further with a larger number of respondents, both individually and in groups, and can be developed using a mixed method method in order to dig deeper into the effectiveness of this therapy.

Spiritual Emotional Freedom Technique (SEFT) is an application of spiritual healing models which can be developed by adjusting the beliefs and religion of the individual [12]. If the individual is Muslim, this therapy can use dhikr as a set-up method in its implementation [11]. Based on the results of several studies, it is stated that with the Covid-19 pandemic various negative thoughts will appear and cause psychological problems, this SEFT therapy will be able to relax and replace negative thoughts with positive thoughts where sincerity and persistence in asking for help from God will create peace in the individual self. This makes SEFT very effective. Besides this therapy is also cheap and easy to do by anyone. Therefore this therapy can be an alternative to prevent the occurrence of various psychological problems experienced by the community during the Covid-19 pandemic.
4 Conclusion

The Spiritual Emotional Freedom Technique (SEFT) therapy can make one of the therapies for handling and controlling stress and traumatics effectively and efficiently during the Covid-19 pandemic.

References

The Implementation of Various Games to Develop Children Intelligence in Indonesia

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Abstract. The purpose of this research is to find out the implementation of the arrangement of various main in developing children's intelligence. The research method used in this research is survey method. This study used questionnaires, interviews and observation sheets as a means of collecting research data conducted at 21 PAUD institutions in Kebumen, Purworejo, Wonosobo, and Temanggung districts. Data analysis using descriptive quantitative. The results showed that 57.2% of PAUD unit institutions have made arrangements for various games, 33.3% have not made arrangements for various games, and 9.5% of PAUD institutions have not organized safety activities. The various games was prepared by the class teacher with 14.3% as many as three variation and 85.7% of the institution prepared four variation in one day. The arrangement of various games was carried out in the morning before the learning activities were carried out with 61.9% of teachers coming 30 minutes before the learning activities. Based on the results of the research, it can be concluded that learning activities will get the results of maximum intelligence development if the teacher gives the freedom to play to children, namely by planning and structuring various games before the learning activities are carried out so as to raise children's curiosity, as well as give freedom to children to choose the various games in accordance with the interests of children.

Keywords: Arrangement of games, Children's intelligence, Early childhood

1 Introduction

Early childhood is an individual aged 0-8 years where at that age the child is undergoing a very rapid development in the human life span [1]. This age is often referred to as the golden age. Montessori argues that at this time it is also called sensitive periods, which are periods where children easily record and receive the stimulus obtained from the environment both by educators, parents and the child's surroundings [2]. This period will not be repeated in the future and occurs only once during human life. The position of play for a child is life and life is play which means the child learns through play [3]. Therefore, all learning activities presented for children are packed with play activities involving all senses owned by the child. Catron and Allen argue that the main purpose of children's play activities is so that all aspects of children's development can develop optimally and the occurrence of interactive communication [4]. In connection with that, an institution should have a curriculum that aims to develop all children's potential so as to create a fun learning atmosphere for children. The curriculum is compiled and developed by a unit of PAUD institutions to develop the knowledge, creativity, skills, and attitudes that children have as a provision to live the next life [5]. Getz has conducted research on the test methods used to measure the number, complexity, and setting of play resources in
preschool classes, the results of which showed the number of conflicts that occurred or an increase in significant conflicts with the various games provided [6]. Robert conducted research on the provision of early interventions while playing for shy children. Research conducted by conducting the act of providing special training for shy children by approaching in emotional regulation strategies and relaxation techniques for handling shy children in developing their intelligence [7]. In connection with that, Bratton revealed that play therapy is a responsive means that can express the child's experiences, thoughts, feelings, and intelligence [8].

Intelligence is the ability that children have in solving problems experienced by children as well as the ability to create a certain work in the child's life [9]. Intelligence has been possessed by the child since birth and can be developed until adulthood. Children's intelligence should be developed as early as possible by stimulating the five senses possessed by the child. Intelligence is one of the capitals that can be utilized while learning. According to Gardner, the intelligence possessed by the child can be seen from the extent to which in solving problems, generating new problems to solve, and the ability of the child to create things [5]. Gardner's research results that human have eight intelligences and use them in an individualized way that is in accordance with the abilities of each child, each child is able to develop according to their intelligence, and each intelligence works together to grow aspects of its development [10]. The nine children's intelligences included linguistic intelligence, musical intelligence, mathematical logic intelligence, physical and kinesthetic intelligence, intrapersonal intelligence, interpersonal intelligence, spatial intelligence, naturalist intelligence, and spiritual intelligence [3].

In fact, learning that supports the achievement of the potential of each child is centered on children (student center). Student center approach is a learning activity that encourages interaction between teachers and children and interaction between children and other friends that can lead children to become critical thinkers, able to make choices, imaginative and creative and innovative in their lives [11]. This is in line with fisher's research in which the results of her research on play showed that low physical activity in early childhood results in poorer working memory in adulthood [12]. Teachers plan every learning activity carried out in the form of a Learning Implementation Plan. But what goes unnoticed is the various games that has been planned in the Draft Implementation of Learning not all institutions do the arrangement of various games and provide opportunities for children to choose a various game according to the interests of children. Therefore, in this study raised the issue of the implementation of the arrangement of various games in developing children's intelligence.

2 Method

This research uses survey method using quantitative approach. The research aims to find out the conditions and phenomena in the field. Data obtained through questionnaires, interviews, and direct observation of learning activities. Research data are analyzed using descriptive quantitative analysis. The analysis is illustrated by the calculation of numbers. The results of the analysis will be described descriptively. In this study, researchers will describe and analyze about the implementation of the arrangement of various games in developing children's intelligence.

This research was conducted in 21 early childhood education institutions both Daycare, Play Group, Raudhatul Athfal, Bustanul Athfal, and kindergartens in Temanggung, Purworejo, Wonosobo, and Kebumen districts. The research procedure begins with (a) The preparation of questionnaires, interview guidelines and observation sheets for direct observation guidance on
learning activities; (b) Researchers conduct interviews with principals and teachers to find out the extent of implementation of the arrangement of various play and abilities owned by the child; (c) Researchers observe the implementation of the arrangement of various main in developing children's intelligence in learning activities; (d) Based on the results of interview answers, and the results of observations directly in the process of learning activities, researchers identified the implementation of various play arrangements in developing children's intelligence.

3 Results and Discussion

3.1 Result

3.1.1 Implementation of various games arrangement in learning activities

In fact, every unit of early childhood education institution has a curriculum that serves as the basis for planning learning activities. The curriculum is designed to maximize learning interactions in order to achieve the expected learning goals [13]. The curriculum includes all the indicators that must be taught to the child and how to teach them by making plans that will be carried out during one semester, one week, and one day [14]. The planning of learning activities that are arranged contains all aspects of children's development including aspects of language, cognitive, emotional social, language, moral religion, and art with a variation of planned activities.

One variation of games prepared can develop up to two, three, four, even five aspects of child development. Based on the results of the research obtained the use of tools and materials derived from the surrounding area including various fruits (blimbing, grapes, apples, bananas, salak, dragon fruit, melons, strawberry, star fruit, etc.), trees (banana trees, salak trees, etc.), used materials (milk boxes, used bottles, and packaging), clay, banana fronds, planting medicines (kencur, ginger, galangal, etc.). After the researchers conducted the study, it was found that not all institutions make arrangements for variation of game before learning activities begin. Obtained institutions that do the arrangement of variation of game before children come into the classroom, institutions that do not do the arrangement of various games where the arrangement is carried out when the core activities, and also there are still institutions that have not done the arrangement of security activities. The data of variation of game arrangement can be seen in Table 1.

<table>
<thead>
<tr>
<th>No</th>
<th>Indicator</th>
<th>N</th>
<th>Findings (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PAUD unit institutions have made arrangements for various games</td>
<td>12</td>
<td>57,2</td>
</tr>
<tr>
<td>2</td>
<td>PAUD unit institutions have not made arrangements for various games</td>
<td>7</td>
<td>33,3</td>
</tr>
<tr>
<td>3</td>
<td>PAUD unit institutions have not made arrangements for safety activities</td>
<td>2</td>
<td>9,5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>21</td>
<td>100</td>
</tr>
</tbody>
</table>

Based on the Table 1, not all units of institutions do the arrangement of various games. This is evident from the research results of 57.2% of the institutions that have organized the various games. Thus, it is necessary to approach the PAUD unit to organize the various games. Learning activities that provide a various game and make interesting arrangements and allow children to choose games according to children's interests show that the institution unit has implemented
learning activities according to the interests of children. This is in line with Miller where the preparation of the curriculum as a form of children's play activities program should prioritize the freedom to be creative and explore and the role of adults only as facilitators [15].

3.1.2 various games offered in learning activities

The unit of early childhood education institutions has a curriculum that is implemented in learning activities. The curriculum owned by the institution as the basis for carrying out learning activities. The various games are prepared by the institutions both made arrangements before learning activities that can provide a motivational impact on learning for children as well as a various game that is organized when core activities are carried out. In fact, the success of learning activities depends on the learning planning that has been prepared and developed by the educators of their respective institutions. Based on the results of the study found paud institutions that in one day prepare 4 and 3 variations of games. This can be observed in the following table 2.

<table>
<thead>
<tr>
<th>No</th>
<th>Indicator</th>
<th>N</th>
<th>Findings (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PAUD unit institutions plan 3 various games</td>
<td>3</td>
<td>14,3</td>
</tr>
<tr>
<td>2</td>
<td>PAUD unit institutions plan 4 various games</td>
<td>18</td>
<td>85,7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>21</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 2. Various games in day learning activities

Based on the Table 2, PAUD unit data found that plan 4 various games in one day as much as 85.7% and who prepare 3 variations of amen as much as 14.3%. This can be interpreted that 85.7% of PAUD institutions have facilitated the freedom of learning for early childhood by preparing play options according to children's interests.

3.1.3 Teacher discipline is seen from the arrival time in learning activities

Various games that have been planned in one day by educators in order to implement the curriculum that has been compiled and developed, preferably before the learning activities begin at least 30 minutes the teacher has come first to prepare and organize the various games that has been planned. Well-planned learning activities will play a role in supporting the expected achievement of learning activities. After the researchers conducted observations and interviews to 21 PAUD institutions, then the results of teacher discipline data when coming to school to come early and prepare the various games that has been planned in the curriculum can be observed in table 3.

<table>
<thead>
<tr>
<th>No</th>
<th>Indicator</th>
<th>N</th>
<th>Findings (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5 minutes before the learning activity</td>
<td>1</td>
<td>4,8</td>
</tr>
<tr>
<td>2</td>
<td>10 minutes before the learning activity</td>
<td>2</td>
<td>9,5</td>
</tr>
<tr>
<td>3</td>
<td>15 minutes before the learning activity</td>
<td>1</td>
<td>4,8</td>
</tr>
<tr>
<td>4</td>
<td>20 minutes before the learning activity</td>
<td>2</td>
<td>9,5</td>
</tr>
<tr>
<td>5</td>
<td>25 minutes before the learning activity</td>
<td>1</td>
<td>4,8</td>
</tr>
<tr>
<td>6</td>
<td>30 minutes before the learning activity</td>
<td>13</td>
<td>61,9</td>
</tr>
<tr>
<td>7</td>
<td>45 minutes before the learning activity</td>
<td>1</td>
<td>4,8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>21</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 3. Teacher discipline as seen from arrival time
Based on the data findings above, it can be found that 61.9% of teachers come to school 30 minutes before the learning activities, and there are still 33.4% of teachers who come to school less than 30 minutes before the learning activities. This is one of the factors that causes teachers not to organize various games before learning activities.

3.2 Discussion

Based on the findings of the study that showed the findings that 85.7% of PAUD institution units have prepared 4 variations of play in one day. However, from 85.7% it is not all done environmental arrangements. The unit of institutions that organized the various games only reached 57.2%. One of the factors that influence the unit of the institution does not make arrangements for the various games is because there are still 33.4% of teachers coming to school in less than 30 minutes. Thus, the discipline of teachers in structuring will affect the success of learning activities. The number of play variations planned in learning activities is directly proportional to the growing intelligence. The more various games planned in one day, the more interactions that occur in the learning process on that day so that the more intelligence owned by children includes linguistic intelligence, musical intelligence, mathematical logic intelligence, physical and kinesthetic intelligence, intrapersonal intelligence, interpersonal intelligence, spatial intelligence, naturalist intelligence, and spiritual intelligence [3]. This is in accordance with Getz's research which states that the more various games activities, the more interactions that occur in learning activities [6]. Learning activities are carried out by planning activities that provide freedom to explore and creativity [15] in accordance with the development of children, namely by giving freedom to children to play by choosing their own various games that children are interested in and supporting the freedom of learning program.

4 Conclusion

Based on the results and discussions he had above, it can be concluded that learning activities will get the results of maximum intelligence development if the teacher gives the freedom to play to children, namely by planning and structuring a various game before the learning activities are carried out to raise children's curiosity, as well as give freedom to children to choose the various game according to the interests of the child. The next advice for researchers is to conduct research on what kind of play can develop each child's intelligence.

Acknowledgement

The speech of love was conveyed to the Early Childhood Education Teacher Education Study Program that has funded this research, so that the research can run smoothly and get results that can contribute to Early Childhood Education.
References

The Inclusivism of Religious Figures Amid a Plurality of Beliefs

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Abstract. This study aims to determine the typology of religious figures in the theological aspect. This research used descriptive exploratory method by conducting in-depth interviews with non-Muslim religious leaders (Christians, Catholics, Hindus, Buddhists, and Confucians) related to five things, namely religious absolutism, religious authoritarianism practices, belief in the truth of the scriptures, beliefs in the truth of religious worship/rituals, and interfaith marriage. The results showed that the religious leaders had an absolute exclusive view in the theological aspect. The results of this study need to be juxtaposed with previous research on the inclusivism of religious leaders in political, social, and economic aspects. Previous research has found that religious leaders have inclusive views in non-theological aspects. For this reason, it can be concluded that religious figures have an inclusive typology. It is hoped that the understanding of religious inclusivism possessed by religious leaders can be transmitted to the respective religious communities to prevent horizontal conflicts in the name of religion.

Keywords: Inclusivism, Figure, Religion, Plurality

1 Introduction

Indonesia is a nation with a very diverse ethnic composition, which has diversity in potential, character, hobbies, education level, skin color, economic status, tendencies, and ideological affiliations, which are different. The pluralism of the Indonesian nation is also since almost all major religions, namely Islam, Protestantism, Catholicism, Hinduism, Buddhism, and Confucianism, live in this country. On the other hand, Indonesian society also consists of various ethnicities, cultures, and languages [1]. This kind of phenomenon, on the one hand, is a basic asset that can enrich positive religious dynamics, but the fact often proves that the various conflicts and social friction that have surfaced are triggered by these different beliefs [2].

The correct perspective and interaction of religious communities are an asset for the nation to support the success of the national development process; however, in the last two decades, the perspective of religion has developed as a source of conflict. Among the major cases, one that surfaced several years ago was the Poso case in Ambon, Sunni in East Java, GKI Yasmin in Bogor. The reality that occurs in Indonesia shows that the tension that occurs is closely related to factors that are within the scope of religion itself, namely the existence of truth claims and the doctrine of jihad [3]. Conflicts between religious communities that occur in Indonesia occur because of religious typology.

There are three typologies of religion, namely exclusive, inclusive, and pluralist. This understanding of diversity is usually contained in three dimensions of religion, each of which
has an influence on a person's attitude. The three dimensions in question are the first, the theological dimension, where a person is religious according to his/her beliefs which have implications for his/her worship. Second, the social dimension, where a religious person is based on attitudes towards other religions and interactions between religious communities. Third, the political dimension, which is related to the leadership of other religions in an area as well as views on public policies conveyed by other religions [4][5].

1.1 Exclusivism

Religious exclusivity is teachings that teach privileges, excellence, and the spirit of dominating one religion over another. This spirit is shared by all religions. Some religious adherents in Indonesia sometimes bring up anti-multiculturalism, which is described by self-righteousness, which is negative thoughts towards adherents of other religions. This group has an arrogant attitude that believes that its group is superior to others. Expressions of the diversity of this group, either its understanding, attitudes, or behavior tend to be closed, conservative, fundamentalist, extremist, intolerant, apologetic, and dogmatic, so that it is less conducive to seeing other religions in a friendly manner, and to accentuate the side of differences by covering up the sides of the similarities [6].

1.2 Inclusivism

Inclusive theology is a religious view that assumes that, outside of one's religion, there are truths from God. Substantially, inclusive religious understanding means believing that all the truths of other religions also exist in our religion. Inclusive theology is intended to provide an understanding or insight that is open, flexible, and tolerant [3].

The word “inclusive” comes from English, which means up to or including [7]. This term is used to indicate a situation or attitude that views other groups as a part of or as included in the situation. Religious inclusivism does not give up the belief that religion itself is true. Inclusivism does not admit that all other religions are equally true, but it is called inclusivism because people accept that other people from other religions can also survive. Three main ideas are interrelated from inclusivism, namely; (1) the substance of faith and worship is more important than a formal and literal religious symbolism; (2) religious messages, which are eternal in essence and universal in their meaning, must always be reinterpreted by each generation of the people according to the context of the times at hand; and (3) absolute truth belongs only to God, so no one can be sure that their understanding of God's message is the truest, truer, or better than other people's understanding. This group emphasizes the importance of tolerance towards people of the same faith and between religious communities because religious differences are seen as universal human nature [8].

1.3 Pluralism

Religious pluralism is based on the assumption that all religions are paths that are equally valid towards the same God. So, according to this understanding, all religions are different paths to the same God. Or, they are the states, that religion is a human perception relative to God who is absolute, so that - because of its relevance - then every religious adherent should not claim or believe that his/her religion is truer or better than other religions; or claiming that only his/her religion is true. In fact, according to Charles Kimball, one of the characteristics of evil religion
(evil) is a religion that has a claim to an absolute truth (absolute truth claim) for their religion [2].

2 Method

This research was a descriptive-analytical study that began with a search for the latest references on inclusivism of religious figures that had been carried out by previous research. In the next stage, making of instruments was used to describe, test, and analyze data. The data obtained were then analyzed and discussed using related theories to determine the suitability of the prevailing theory and the findings in the field. Respondents and informants in this study were figures from the religions of Islam, Christianity, Catholicism, Hinduism, Buddhism, and Confucianism at Forum Kerukunan Umat Beragama (FKUB) Magelang Regency. This research was a series of research on religious typology. Previous research was aimed at analyzing the social dimensions (socio-economic and political aspects).

2.1 Data collection instruments

The data instruments used in this study were:

a. Questionnaire, which was used to collect data from informants related to several things that could be used to identify the religious typology of religious figures. The questionnaire presented to respondents was related to five things, namely religious absolutism, religious authoritarianism practices, belief in the truth of the scriptures, beliefs in the truth of religious worship/rituals, and interfaith marriage. The questionnaire was open, so that respondents were freer to convey information as it is.

b. 2. Forum Group Discussion, which was used to collect qualitative assessment data about each religious doctrine related to religious absolutism, religious authoritarianism practices, belief in the truth of the scriptures, beliefs in the truth of religious worship/rituals, and interfaith marriage.

2.2 Data analysis

After the data were collected (data collection) properly, they were then edited and sorted. Qualitative data were collected by questionnaire and FGD. The interactive data analysis model was possible when the researcher was in the field. After all, a descriptive analysis was carried out. The analysis process was carried out during the research in the field (within site, in the field) and after the field. Furthermore, data reduction was made based on the relevance and adequacy of information to explain the typology of religion in community leaders.

Data reduction in this research simplified and systematically arranged the data obtained. The results of data reduction were then presented in the form of data display. To present the data, narrative descriptions were used. The next step was to make conclusions and/or verifications. This analysis model considered the interactive relationship between the main components in the research process. Therefore, in this study, verification was carried out by looking back at the data reduction and data display, so that the conclusions were not deviated from the analyzed data. The flow is as follows on Figure 1.
The process of concluding this study was related to previous research as well as related to the perceptions of religious leaders on the socio-economic and political aspects that had been done previously.

3 Results and Discussion

3.1 Religious absolutism

Religious absolutism (truth and salvation) is a belief that truth and safety are only owned by one religion (the religion that is followed), while other religions are heretical. Besides, there are salvation claims that view that only one religion will enter heaven.

The results obtained show that all religious leaders have the belief that truth is not only owned by the religion they adhere to, but for each religious adherent, the religion he/she adheres to is the truest. Everyone decides to embrace religion because it is based on a personal belief that the teachings of his/her religion are true and guarantee his/her personal safety in the hereafter.

3.2 Religious authoritarianism

Authoritarianism is the practice that views religions other than the one a person adheres to as heretical, so that people of other religions must be saved by being converted/forced to embrace a certain religion. The results showed that the respondents acknowledged that their religion is a religion that carries the truth, but the truth itself does not only come from the teachings of their religion. There is only a slight difference in the religious concept of revelation/mission. Da'wah religious adherents have a religious mandate to convey their religious values to others. For this reason, as good people, the task of conveying divine mandates to others is an obligation that must be carried out, but there should be no form of coercion.

3.3 Belief in the truth of the scriptures

The Bible is a source of religious teachings that is used as a reference for religious people to practice religion themselves. The results showed that belief in the truth of the holy book is directly proportional to the belief of the religious community towards its religion.
3.4 Belief in the truth of worship

Worship is an expression of worship of the people of a religion based on the teachings of the holy book. Every religion will believe that the way of worship is following the teachings of its respective religions.

3.5 Marriage with different religions

One of the sensitive issues when discussing relations between religious communities is related to interfaith marriages. The results showed that all religious leaders disagreed with the practice of interfaith marriage because it would raise several problems such as whose faith would become the standard in household life, whose faith the children would follow, which religious values would be instilled in children, asking for help from which religious leader if there is a conflict in the household, and whether each couple fully accepts the religion of his/her different partner.

3.6 Discussion

Overall, it can be emphasized that the level of respondents' confidence in the absolutism of religious truth is relatively high. This fact does not have to be interpreted negatively considering that the truth of theological elements, such as the principle of faith, must be believed in absolute black and white by the adherents. Even the firmness of the theological stance on the absolutism of truth is a necessity of faith, so that every adherent is not beset with doubts about the existence of his/her religious teachings. In a context like this, every religion always teaches the principle of the firmness of faith in the hearts of its adherents. Even in Islam, there is no tolerance in terms of the belief and position of the theologian [2]. Religion has a function as a guide and life guide for its adherents, for that the belief that the religion it adheres to is the most correct, the holy book, and it is the most correct way of worship are things that must be believed in the private sphere (internal to each individual and internal to certain religious people).

To know the inclusiveness of religious figures, it is necessary to look at two dimensions, namely the ideological dimension and the social dimension. Related research on the views of religious leaders in the social dimension, it has been shown that in the socio-economic and political aspects, religious leaders have an inclusive perspective. This means that in the process of social, economic, and political activities, they do not use religious standards as the main reference for partnering, and are more open to other religious communities [3][4][9].

4 Conclusion

The conclusion of this study is related to the results of previous studies. In the socio-economic and political dimensions, religious leaders have an inclusive view. Meanwhile, in the ideological aspect, that is the focus of this research, religious leaders have an exclusive typology. If one conclusion is drawn, in general, religious figures have an inclusive religious typology (exclusive in the ideological dimension, but inclusive in the social dimension).
Acknowledgement

This study was supported by the Ministry of Research, Technology and Higher Education of the Republic of Indonesia through the PDUPT programme. We want to extend appreciation to the Forum Kerukunan Umat Beragama, Pemuda Lintas Agama, and Universitas Muhammadiyah Magelang who have significantly contributed to this research.

References

The Effectiveness of Motivated Spalk on Children's Anxiety Assessed from Science Development Study

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Faculty of Cultural Science, Universitas of Sebelas Maret²

Abstract. Purpose: to determine the effectiveness of using patterned spalk on the level of anxiety in children who have an IV in the children's ward at RSUD Muntilan. The method used in this study was a quasi-experimental study using 2 groups of pres test and post test with a control group and an intervention group. Respondents in this study were 52 child respondents in the children's ward at RSUD Muntilan, by using purposive sampling technique. The measuring instrument used to measure the level of anxiety of children aged 1 to 6 years uses the SCAS (Spance Children's Anxiety Scale) and the observation sheet. Result: there is a significant effect on the level of anxiety of the child who is given the act of using spalk is patterned in the intervention group with p value = 0.000 (p <0.05). There was a positive effect on the children who were attached with patterned spalks, the children looked happy and the anxiety decreased compared to the children who only wore plain spalk wrapped in gauze. So that the use of patterned spalk on children who have the IV line is proven to be effective in reducing anxiety levels.

Keywords: Anxiety, patterned spalk, scientific development

1 Introduction

Spalk is a tool used to restrict motion between the bones and joints. Spalk can also be a tool used to limit the movement of venous access or the area being infused to keep it in the correct position and also to prevent unnecessary movement, infiltration or inflammation. Spalking is done in patients who have fractures, patients who have an IV, especially in infants and children, in patients with joint dislocations and joint pain [7].

Spalk in its development has changed in terms of motifs and colors. The development of this spalk occurs because science is growing and the more results of this research can be used and utilized. The development of this knowledge begins by using patterns and motifs on the splint or spalk, where these patterns and splints will bring a new atmosphere for the child being cared for, besides choosing a color that suits the goals to be achieved. By choosing a suitable pattern and color will reduce anxiety in children who are being treated in hospital and receiving intravenous therapy.

Anxiety is a condition where the body gets a signal that warns of a threatening danger and usually someone takes action to protect themselves. The response to anxiety in pre-school age children who are being treated in the hospital will affect various things such as children having excessive anxiety and feeling afraid of the environment around them. One of the causes of
anxiety is when the child will be put on an IV to get intravenous therapy. The child will experience anxiety when the IV is placed and must be fixed with a splalk or splint. Based on these observations, research will be carried out on how the effectiveness of using patterned splalk to reduce the anxiety of children who are placed with an IV in terms of scientific developments.

2 Method

This study was conducted from November to July with a total population of 97 toddlers who were treated in the children's ward and received infusion therapy. Sampling using purposive sampling technique and divided into two groups, namely the control group and the intervention group, so that each group is 26 children. The instrument used to measure the level of anxiety is the Spance Children's Anxiety Scala (SCAS), which is a tool for measuring the level of anxiety in pre-school children with a total score of 112, and is divided into three levels, namely mild anxiety with a score of 1-38, moderate anxiety with a score of 39-76, and severe anxiety with a score of 77-112. This instrument consists of 29 questions.

The intervention was given to children who had the infusion on the first day by providing a patterned splalk with a color that matched the child's choice. The measurement of the level of anxiety was carried out twice for both the intervention group and the control group. This assessment is carried out before and after the action is taken.

Univariate analysis was carried out to determine the characteristics of the response including day of care, age, gender, experience in care. While bivariate analysis is used to test the hypothesis by determining the relationship between two variables, namely the independent variable and the dependent variable using statistical tests. The statistical test used in this study is to use the dependent t test and independent t test. The test is used if the distribution is normal, if the distribution is not normal then use the Whitney mann test.

3 Results and Discussion

In this study, there were two groups, namely the intervention group which was given splalk with a pattern of various colors and the control group which was only given plain splalk wrapped in white gauze.

3.1 Characteristics of respondents in age and gender

Based on Table 1, anxiety that occurs while the child is hospitalized due to the emergence of stress in the child caused by separation from the people closest to him and pain [10]. One of the factors in children's anxiety is age. Toddler age is a period of autonomy so that if there are disturbances or restrictions on movement that makes it uncomfortable. Like being put in an infusion, besides causing anxiety it will also cause the child to react negatively, especially temper tantrums. Anxiety is also influenced by gender which girls have higher anxiety than boys.
3.2 Characteristics of Respondents based on length of stay and history of care

Table 2. Characteristics of respondents based on length of stay and history of care

<table>
<thead>
<tr>
<th>No</th>
<th>Variable</th>
<th>Intervention Group</th>
<th>Control Group</th>
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</thead>
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<tr>
<td></td>
<td></td>
<td>Frequency</td>
<td>Percentage</td>
<td>Frequency</td>
</tr>
<tr>
<td>1</td>
<td>Length of stay (day)</td>
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<td>57.7%</td>
<td>10</td>
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<tr>
<td></td>
<td>5</td>
<td>3</td>
<td>11.5%</td>
<td>4</td>
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<td>6</td>
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<td>3.8%</td>
<td>1</td>
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<td>7</td>
<td>1</td>
<td>3.8%</td>
<td>3</td>
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<tr>
<td></td>
<td>10</td>
<td>1</td>
<td>3.8%</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Being Treated</td>
<td>15</td>
<td>57.7%</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>14</td>
<td>57.7%</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>11</td>
<td>42.3%</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Amount</td>
<td>26</td>
<td>100%</td>
<td>26</td>
</tr>
</tbody>
</table>

Based on Table 2, the length of treatment period also affects the level of anxiety, according to Wong [10], which states that parents will feel anxious when a child is treated for the first time and anxiety becomes less if they often care for their child in the hospital. This parent's anxiety will automatically have an impact on the child and spread to the child, causing the child's level of anxiety to also increase. This is in line with Subandi's research [7] which states that the experience of children in previous hospitals is a support system as well as the ability of children to respond to hospitalization anxiety in children. According to Wong [10] also states that the vulnerability of children will increase to hospitalization stress, one of which is in children aged 6 months to 5 years. However, the response of pre-school children to the effects of hospitalization is much better than that of younger children. The existence of both verbal and physical aggression only leads to a certain destination or place, not the whole body. Preschool children are also able to explain the level of pain more clearly and are more courageous to verbally convey their dislike to nurses.

The psychosocial stage of development in preschool children has a more frightening experience when compared to other children. The experience of the child being treated in the hospital will show various reactions depending on the stage of development, the child's experience in hospitalization, support from family, support from sibling and the ability to adjust the place of the clutch it has. In addition, the longer the patient is treated in the hospital, it will cause a decrease in the level of anxiety because the child has adapted to a new environment, new procedures and habits, is familiar with people who interact every day, both from a team of doctors, nurses and other health teams.
3.3 The difference in the average level of anxiety before and after the use of patterned spalk

Based on Table 3, at the age of 1-6 years is a period where children become very sensitive to new environments.

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean Before</th>
<th>Mean After</th>
<th>SD</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervensi</td>
<td>49.88</td>
<td>71.04</td>
<td>13.107</td>
<td>.000</td>
</tr>
<tr>
<td>Kontrol</td>
<td>64.62</td>
<td>120.73</td>
<td>29.698</td>
<td>.000</td>
</tr>
</tbody>
</table>

At this time is the peak period of worry in children. Their limited understanding of body functions also increases their difficulty in understanding their bodies, one of which is when the nurse is about to put an IV. At this time the reaction to the appearance of pain is the same as that seen in toddlers, even though pre-school children can already determine the level of pain precisely. Pre-school age children already understand that if given an explanation of the interventions to be carried out, explanations and distractions, this will have an effect on reducing anxiety levels. The usual response to children with anxiety during hospitalization and intervention is that they will try to stay away or hide the tools to be used.

Based on the Cognitive development theory put forward by Peaget, it is stated that children aged 2-7 years are in the preoperational phase where children's minds are dominated by what they see, hear and experience [10]. At this age children are also able to use the language and symbols that exist in their environment. This is usually done by imaginative play, asking questions and other interactions so that at this time the child can be involved in choosing the motifs and colors on the spalk according to their wishes.

Research conducted by Subandi [7] shows that there are significant differences in the cooperative level of the intervention group and the control group with a p value of 0.000. This shows that the cooperative attitude is greater in the intervention group than in the control group. The selection of colorful and patterned spalks is in accordance with the principle of atroumatic care, which according to Wong et al. [10] atroumatic care is an effort to reduce children's anxiety while in hospital by providing a comfortable environment by health workers, and using interventions that eliminate or reduce physical or psychological distress in children and families in the health care system. Childhood is a period when the child begins to exercise self-control so it is appropriate that at this age the child is given the opportunity to choose the appropriate spalk motif. It is hoped that this patterned spalk will be able to reduce pain and injury to children because this can be a way to avoid physical distress. This is in accordance with Wong et al [10] which states that one of the principles of atroumatic care is to reduce physical distress, which can be done by modifying the room as well as the condition of the house, installing looms or bed linen with animal and flower motifs and paint walls by using bright color paint.

3.4 The Effect of the Use of Patterned Spalk on the Anxiety Level of the Infused Children

Difference in the average level of anxiety before and after the use of patternes spalk showed on Table 4.
Table 4. The difference in the average level of anxiety before and after the use of patterned spalk

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>D</th>
<th>SD</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervention</td>
<td>26</td>
<td>120.73</td>
<td>13,107</td>
<td>18.363</td>
<td>0.000</td>
</tr>
<tr>
<td>Control</td>
<td>26</td>
<td>71.04</td>
<td>13,107</td>
<td>18.363</td>
<td>0.000</td>
</tr>
</tbody>
</table>

The results showed that there was an effect on the level of anxiety that was installed with patterned spalk. This is in line with Susila's research which shows that children are more cooperative after being given intervention to use patterned medical devices. Modification of the use of patterned medical devices, one of which is a patterned spalk, is essentially a scientific development based on the philosophy of child nursing care. The philosophy of nursing care for infants and children is the diagnosis and response to human response to health problems that arise both actually and potentially. In this philosophy includes four images including: attention to a series of experiences and human responses to health and disease without being limited to a problem-focused orientation, directly integrated with objective data with knowledge gained from understanding the subjective experience of patients or groups, the application of knowledge on the process of diagnosis and treatment as well as establishing caring relationships that facilitate health and healing [11].

This spalk modification using motifs and colors is basically an application of scientific knowledge that is always developing. In philosophy, a scientific discipline can be stated as knowledge if it meets the criteria of the ontology which includes what / the essence of science / truth / science. Meanwhile, epistemology includes methods and paradigms as well as axiology that includes imperative goals or values or attitudes. Philosophy itself is divided into 2 fields of science, namely natural science and moral science.

Nursing which is part of health and is part of natural sciences because one of it is the study of life sciences. Science is always developing and one of them is the development of this splint or spalk. The development can be seen from the appearance of spalk which used to be limited to using a board wrapped in white cloth and then developed into a form of board covered with cotton and wrapped in gauze. Along with the development of science and the results of research, finally, the domination with various motives is evident and this is evident from some of the research that has been done.

Apart from developing with various motifs, spalk also develops by using a variety of colors. It has also been proven from several research results that certain colors also have a psychological effect on a person. According to Atkinson in Harini [2], there are two ways to deal with a person's anxiety, namely first by focusing on the problem, individuals assess situations that can cause anxiety and do something to change or avoid it. Second, emphasize emotions, where individuals try to reduce feelings of anxiety through various ways and indirectly deal with problems that cause anxiety. So, someone who experiences anxiety will be able to overcome his anxiety in his own way. Color plays an important role in a person's life. One of the psychological functions of color is that it can have a certain effect on our temperament and our soul. Color can affect human soul and emotions and can describe mood. Color has a special influence on our bodies even though we are sometimes not aware of it. There are several color actions on the body such as red improves blood circulation, blue inhibits and yellow helps reduce pain and inflammation, in addition to that, green shark has a nourishing and calming effect, as well as blue also has a calming and relaxing effect.
4 Conclusion

The use of patterned spalk with a choice of colors has a positive impact on reducing children's anxiety while being treated in the hospital. It is proven that there is a positive relationship because patterned spalk has a relatively low level of anxiety in children compared to children who only use plain spalk. Children prefer spalk with animated characters and colorful motifs.

References

An evaluation of Dehydration Assessment and Zinc Administration in Children with Acute Diarrhea in Hospitals

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Department of Pharmacist, Universitas Muhammadiyah Magelang, Magelang, Indonesia³

Abstract. Improper management of diarrhea, either at home or in hospital, is one of the main causes of death in children with diarrhea. The problems that arise in the management of diarrhea in children in the hospital are the unclear classification of degrees of dehydration, parents do not know the administration of zinc tablets and the unclear discharge planning. The purpose of this study was to investigate how the assessment of dehydration and zinc administration in children with acute diarrhea in hospital in Magelang, Indonesia. The method used is a case study. Subjects in this study were nurses who managed acute diarrhea. Data collection was carried out by means of observation, documentation and interviews. The results showed that the assessment of dehydration was not specific, the duration and dose of zinc had been given correctly but education on zinc administration had not been carried out properly. In conclusion, we found several strengths and weaknesses in the assessment of dehydration and zinc administration in acute diarrhea children in hospital.

Keywords: Children, acute diarrhea, management, dehydration assessment, zinc administration

1 Introduction

Diarrhea is still a major problem of child illness and death. To overcome this problem, the World Health Organization (WHO) has developed a framework for child health services in hospitals, one of which is the management of diarrhea for children, namely with five steps to complete diarrhea, which includes: (1). Giving orlait, (2). Giving zinc, (3). Selective antibiotics and antidiarrheals are not given, (4). Feeding and continuing with breastfeeding, (5). Providing advice to parents about when to bring their child back to the hospital [1]-[4].

The main cause of death among children under five in Indonesia is diarrhea, which is 16.7%. This happens because the knowledge of health workers about the management of diarrhea is still low, as evidenced by the knowledge of officers about the history of diarrhea sufferers correctly by 43.7%, knowing the determination of dehydration by 29.9%, knowing the management of diarrhea without dehydration as much as 33.3%, knowing the management of moderate or mild dehydrated diarrhea by 12.6% and knowing the management of severe dehydrated diarrhea by 14.9% [5],[6].

Assessment of the level of dehydration in children with diarrhea is very important because it is the basis for further management. Zinc is important because it can replace the natural zinc...
2 Method

The study design used a case study, to investigate how the assessment of diarrhea and zinc administration as management of acute diarrhea in children in the hospital. The place where the research was conducted at hospital in Magelang Indonesia. Collecting data from observations, interviews and progress note documents. Observations were made by looking at the actions of nurses in handling children with diarrhea. Interviews were conducted with nurses who provided direct management of children suffering from acute diarrhea, documents were carried out by looking at Nursing Care Standards and Standard Operating Procedures, as well as seeing records of child development. The tool used is a tool for assessing the quality of health services for sick children at the referral hospital. These three sources of evidence are used to investigated how the management of diarrhea in children in hospital. The analysis was carried out in 5 stages. The first stage is data reduction or entering data into a different list of the three sources of evidence. The second stage creates a category matrix and places the evidence into those categories. Category matrices are created by defining themes, sub-themes and categories. The third stage is to check the data that has been entered into the category. The fourth stage is to tabulate all categories of data sources, including interviews, documents and observations. The fifth step is to examine the complexity of tabulations and order them chronologically. The validity test was carried out by means of source triangulation. The source used is the child's parent.

3 Results and Discussion

3.1 Dehydration assessment

The results of research on the quality of children's health services on dehydration assessment can be seen in Table 1.

<table>
<thead>
<tr>
<th>Component</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dehydration scoring</td>
<td>2</td>
</tr>
</tbody>
</table>

The score obtained on the dehydration assessment is 2, meaning that all patients have not been assessed for their level of dehydration correctly, even though there are incomplete standard operating procedures. This is not in accordance with WHO (2009), that the assessment of degree of dehydration should be carried out correctly in all diarrhea patients based on the national recommended classification and in accordance with the Handbook for Child Health Services in First Level Referral Hospitals in Districts / City [1]. From the results of interview, observation and document data sources, the categories for the results of the degree of dehydration assessment were obtained, as shown in the figure 1 below.
From the picture above shows that the diarrhea assessment has not been carried out correctly, it is proven by the existence of: The available SOP is still general, not specific, as the informant stated:

“"SOP in general, yes .. so the handling of all patients in general types of diseases”.

In the assessment of diarrhea, the form used was still general, the informant's statement which proved that:

“The nursing assessment form is not specific to dehydration but in general”.

The dehydration assessment carried out is not appropriate, it was proven by the informant's statement:

“Check head to toe, under 2 years whether the crown is for example sunken or not .. crying can still come out tears no .. skin turgor can quickly return in 2 seconds or not .. lip mucosa ... weight”.

Diarrhea assessments that have been carried out in the hospital are still in general, not specifically diarrhea assessments. This is not in accordance with the guidelines for children's health services in hospitals, that in children with diarrhea, anamnesis should be carried out regarding the history of feeding, the characteristics of diarrhea, including frequency of defecation, duration of diarrhea, blood in the stool and asked if the child vomits. In addition, they also asked about the existence of an extraordinary event in the child's residence, previous antibiotic treatment and checked for symptoms of invagination. Assessment of diarrhea is very important in the next treatment. By carrying out the assessment properly and correctly, it will be known what the clinical form of children's diarrhea will be. With the correct assessment, it will be known whether the child has acute diarrhea, cholera, dysentery, persistent diarrhea, antibiotic-related diarrhea or invagination [1].

The hospital classified the degree of dehydration into diarrhea without dehydration, diarrhea with mild dehydration, moderate dehydration, not severe dehydration and severe dehydration. This is not in accordance with WHO, which states that diarrhea is classified into 3
levels of dehydration, namely without dehydration, mild / moderate dehydration and severe dehydration. The results showed that health workers classified the degree of dehydration by assessing the eyes, crying, tears, consciousness, urination, turgor and lip mucosa. This is not in accordance with WHO recommendations, that in assessing the degree of dehydration only uses 4 things, namely general condition, eyes, willingness to drink and skin turgor. It is said to be severely dehydrated if the child has two or more signs of lethargy, sunken eyes, cannot drink and the turgor skin back very slowly. Meanwhile, a child is categorized as mild / moderate dehydration if the child shows two or more signs of fussiness or restlessness, sunken eyes, drinks greedily and the turgor is slowly. For the categorization of diarrhea without dehydration, if the child has not signs to be classified as mild moderate or severe dehydration [1], [9].

3.2 Zinc administration

The results of the quality of children's health services on zinc administration are illustrated in Table 2.

<table>
<thead>
<tr>
<th>Component</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zinc administration</td>
<td>3.385</td>
</tr>
</tbody>
</table>

Table 2. Average scoring for quality of child health services (zink administration)

Of the above components, the mean score was 3.385. In the explanation of the score, there was no score of 3.1 and so on. Because of this, the score of this component is rounded to a score of 3. This mean score means that there is zinc administration in children with diarrhea but it is not accurate, even though the standard operating procedures are complete.

![Fig. 2. Administration of zinc](image)

From the picture above shows some of the findings in zinc administration. The findings were that there was no standard operational of procedure for zinc administration, the dose of zinc had been given correctly, the duration of administration of zinc was 10 days, if the children vomiting, zink then it was repeated after 10 minutes, and the education was not done properly.
The absence of standard operating procedures in the administration of zinc was evidenced by the informant's statement, "Not yet SOP, ma'am." (I1).

Furthermore, officers already know the correct dose of zinc in children, namely given 10 mg to children aged less than 6 months and 20 mg to children aged more than 6 months. This is supported by the informant's statement, namely “The dose of zinc for under 6 months is 10 mg / day if over 6 months we use 20 mg / day” (I2).

The officers also knew how long it took to give zinc correctly, which was supported by the informant's statement that "Don't stop drinking, it must be 10 days, so that diarrhea doesn't happen again" (I3).

This was supported by the informant's statement “if the patient vomits, then take a 10 minute pause, then give it again” (I4).

The next result is that education in zinc administration has not been carried out properly, especially in the explanation of the length of time giving zinc to parents. This was evidenced by the informant's statement: "how much yes .. maybe until it runs out, bro.." (Ip1).

The absence of SOP in the hospitals in administering zinc is not in accordance with WHO (2009), which states that there must be policies and procedures for giving zinc in the handling of children with diarrhea. WORLD Health Organization states that what is meant by complete SPO is the SOP for zinc administration as early as possible with the right dose according to the Handbook for Child Health Services Guidelines for First Level Referral Hospitals in districts / cities. The absence of SPO for zinc administration is also not in accordance with the Decree of the Minister of Health of the Republic of Indonesia No 496 / Menkes / SK / IV / 2005, regarding guidelines for medical audits in hospitals. The ministerial decree states that hospitals are required to provide medical services in accordance with established professional standards and standard operating procedures. The results of zinc administration at hospitals showed that the dose of zinc given was 10 mg for children aged less than 6 months and 20 mg for children older than 12 months. This is in accordance with the Ministry of Health which states that zinc is given to children aged 2 months and over for 10 days with a dose: children aged less than 6 months are given 10 mg (1/2 tablet) per day and children over age. from 6 months given 20 mg (1 tablet) per day. Zinc is a micronutrient that is very important for the body. In the condition of diarrhea, the child will lose zinc in his body and there will be an increase in the excretion of the enzyme INOS (Inducible Nitric Oxide Synthase), which will result in intestinal epithelial hyperexpression. By administering zinc, it can inhibit the increase in the INOS enzyme and will support the epithelialization of the intestinal wall which is damaged during diarrhea. In addition, zinc can replace the lost natural zinc content in the body and can accelerate the healing of diarrhea [5], [10], [11].

The results showed that the officers already knew how long they were giving zinc properly. Administration of zinc for 10 days and given in the correct dosage. with the supplementation of 20 mg per day until diarrhea stops can reduce the duration and severity of diarrhea in children in developing countries. Then with the continued administration of zinc for 10 days can reduce the incidence of diarrhea for 2-3 months. This will help reduce child mortality from diarrhea.

According to Lazzerini and Ronfani, zinc supplementation can reduce the duration and severity of diarrhea in children suffering from diarrhea. In hospitals, zinc is given directly to the child according to the dose in the form of syrup and if after giving the child vomits, it is repeated after 10-15 minutes [12]. This is in accordance with the Ministry of Health, which states that
the method of giving zinc is by dissolving zinc in one tablespoon of boiled water or breast milk, or it can be taken directly by children according to the dose if it is in the form of suspension. Furthermore, if the child vomits after giving zinc, then the zinc administration can be repeated again after 10 minutes. The results showed that the officers already knew the dose and duration of zinc administration, but the family did not know how long it took for their children to give zinc. This shows that the officers have not provided clear education to the family regarding the duration of zinc administration. This is not in accordance with WHO, which provides guidelines that in administering zinc, officers must teach mothers or their families about zinc doses, how to give zinc and provide explanations and remind mothers to give zinc to their children for 10 days. full. According to Mazumder, education on giving zinc to children for 10 days is very important to be given to parents because it will reduce the duration of diarrhea and prevent diarrhea in the next 3-4 months. Zinc should be given to children with diarrhea for 10 full days because it provides many benefits for children [13], [14]. According to Lukaclik, et al, giving zinc supplements in acute diarrhea can reduce the duration of diarrhea and also reduce the severity of diarrhea. The duration of diarrhea can be reduced because the administration of zinc will increase the absorption of fluids and electrolytes by the intestines and the intestinal epithelium which is damaged during diarrhea will regenerate more quickly with administration. In addition, zinc can increase the clearance of pathogens in the intestine and can strengthen the body's immune response [4], [15], [16].

4 Conclusion

Was found several strengths and weaknesses in the assessment of dehydration and zinc administration in children with acute diarrhea in hospital.

Acknowledgement

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References


Wake Up Call Messages: Shadowing Technique with Listening Logs to Improve Students Oral Performance

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Elementary School Teacher Education Department, Universitas Muhammadiyah Magelang, 56125, Indonesia1,2,3

Abstract. The ability in oral communication is one of the goals in ELT in university levels. However, lack of models and practices become considerable factors of why students sometimes find it so difficult. This study attempts to improve students’ oral performance in terms of fluency, pronunciation, and accuracy. It employed a Classroom Action Research conducted through two cycles. 20 first-year students of Elementary School Teacher Education of UNIMMA, Indonesia were assigned as participants. A shadowing technique supported by daily listening logs was carried out within 6-week practices. Oral test was taken to assess their oral performance. As attempt to find out their improvement in details, journals in form of daily recordings were investigated as well. Then data were analyzed using descriptive qualitative approach. Findings show there was an increase of mean scores from pre-cycle (62.7), cycle I (68.9), to cycle II (73.25). The activity logs contributed to this improvement as well. It was highlighted from the average scores of their daily activity logs. Hence, shadowing technique enhanced oral performance when assisted with listening logs. The results could be adapted by educators or parents when they attempt to improve their students speaking skills using shadowing technique.

Keywords: action research; listening logs; oral performance; shadowing

1 Introduction

Speaking plays crucial roles in academic settings. It gives lots of contribution and becomes considerable factor for successful communication [1]. When speaking students are constructing and sharing meaning in verbal symbols. Here they also convey messages, ideas, and thoughts. Also, job markets really demand graduates with outstanding proficiency in English, especially in speaking [2]. Though it becomes a fundamental aspect in business and educational settings, it is considered difficult and challenging in language learning [3].

Speaking has its own components which give significant contribution, e.g. vocabulary, grammar, fluency, pronunciation, and comprehension [4]. Fluency itself can be considered as an oral proficiency which variables are appropriateness, lexical range, and correctness [5]. Other factors also influence learners’ proficiency e.g. family support, exposure to language, attitudes, and teaching strategies [6].

In fact, students' language skills in terms of listening and speaking skills are still low. Listening is considered as language skill which also contributes to the success of oral performance. It is a receptive skill which deals with memory strategy, comprehension, pronunciation, and intonation patterns.
Though listening is becoming one of significant contributors, it is still considered difficult indicated by achievement of those components [7]. In reality language learners find difficulties to express ideas in spoken language [3]. This occurs on linguistics knowledge (such as phonemes, words, grammatical structures, pronunciation, and accent) and non-linguistics knowledge (such as topic and main idea, general knowledge about the world) makes listening difficult for the students [8].

Shadowing is one of techniques which facilitates learners to speak in the classroom. It assumes that learners improve their oral performances through listening and repeating practices [9]. It also emphasizes on paced supported by auditory tracking task [10]. It is a technique commonly known to improve interpreting skills [11].

Dealing with applying shadowing technique in promoting oral practices, a number of studies conducted this technique to improve self-confidence and speaking ability [12][13], fluency [14]-[16], [3] [5], pronunciation [17]-[19]. However, the prior studies have not revealed the practical discussions of the treatment yet. Besides they do not explore the practices in university contexts. The present study is aimed at investigating the role of Shadowing technique in improving students’ oral performance. Moreover, it discusses a practical experience using Shadowing technique in university levels. It gives much contribution to teaching and learning English as foreign language practices.

2 Method

A Classroom Action Research was employed in this study. 20 first semester students of Elementary School Teacher Education Department of Universitas Muhammadiyah Magelang were assigned as the subjects. They practiced listening and speaking skills using Shadowing technique throughout six-week treatment. The audio used in the treatment presented a number of sentences and conversations taken from Interchange [20]. The shadowing phases carried out during the treatment were adapted from Kadota and Tamai cited in [21]. The treatment was conducted within 2 cycles and took 3 weeks for each cycle. During the treatment students were provided with a number of messages (listening logs) sent early morning via WhatsApp attached with audio of expressions and dialogues, materials, and the discussions. It focused on how students listened to utterances or conversations, read the script, imitated, simulated the sound as well as the speakers utter then learned the contents. Then they recorded their voices and upload to Univ LMS. The phases done by the students were presented as follows:

1. Mumbling: Students listen to the incoming sounds and focus on what the speakers pronounce/say
2. Prosody shadowing: Students shadowed the utterances as they did in the previous phase without reading any script.
3. Content shadowing: Students shadowed the speech then paid much attention to the contents of the speech.

Data were gathered through tests supported by documentary-method. Tests were taken to obtain data regarding students’ oral performance. They were given a set of situation and then did role play related to it. Their performance got observed during the tests. While their personal development (pronunciation, intonation, and fluency) was observed from their weekly recordings (journals) uploaded to our LMS as their personal portfolio. It employed qualitative approach to analyze the data.
To assess students’ oral performance, some criteria could be taken as the rubric’s guideline, e.g. cohesion, vocabulary, syntax, pronunciation, and fluency [22] but this study only assigned the speaking micro skills (pronunciation, intonation, and fluency) as the scoring criteria.

3 Results and Discussion

3.1 Result

The preliminary study revealed that there was a problem regarding students’ oral performance. This study was attempted to ease the difficulties and overcome the problem. To ensure that the problem really existed, a pre-cycle test was conducted. It showed the average score of students’ oral performance was 62.7 in terms of pronunciation, intonation, and fluency. It was considered low and needed to be enhanced through the teaching and learning quality development. It was difficult for them since they learned English as their foreign language. They could not express their ideas as fluent and confident as with their mother tongue. Besides they lack of practice even though they had lots of references and online media to learn English. Also, most of them lack of knowledge of target language so they still needed a guide during self-learning.

To overcome the problems, the treatment called Wake up call messages was provided in Cycle I. It was sent to the students guiding them to practice their listening and speaking. They were regularly drilled with a number of long conversations provided by some notes as the materials and exercises. Different messages were sent within 3-5 days a week. The materials also became a part of the topics later discussed in the classroom.

When they practiced speaking in the class, they seemed to understand quite well how to pronounce the sentences correctly. After 3 meetings, they took the exam and the results showed an increase in oral performance in terms of pronunciation, intonation, and fluency. However, referring to activities in class, more than half of the students had difficulty pronouncing long sentences. The recordings taken from the LMS said so. Oral test conducted at the end of Cycle I showed an increase of students’ oral performance.

Reflection was conducted to evaluate the learning process carried out in Cycle I. Suggestions were strongly addressed that the dialogs given to the students were considered too long. Besides, since English was considered as their foreign language, it was rather difficult for them to pronounce the sentences accurately. It had better attach the transcript along with the dialogues. As a result, in Cycle II the dialogues were presented little shortened and accompanied by written explanation dealing with how to pronounce them.

In Cycle II a Synchronized reading was added in the shadowing phases. Students shadowed the audio, read the transcript, simulated every sentence they heard focusing on intonation, stress, and pace [21]. Students practiced listening and oral skills assisted by Wake-up call messages throughout the cycles. Their pronunciation, intonation, and fluency improved with practices in week by week as presented in Table 1.
Table 1. Students’ portfolio scores of oral performances

<table>
<thead>
<tr>
<th></th>
<th>Message 1</th>
<th>Message 2</th>
<th>Message 3</th>
<th>Message 4</th>
<th>Message 5</th>
<th>Message 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pronunciation</td>
<td>6.35</td>
<td>6.80</td>
<td>7.25</td>
<td>7.50</td>
<td>7.6</td>
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</tr>
<tr>
<td>Intonation</td>
<td>6.05</td>
<td>6.75</td>
<td>7.15</td>
<td>7.15</td>
<td>7.35</td>
<td>7.45</td>
</tr>
<tr>
<td>Fluency</td>
<td>5.85</td>
<td>6.40</td>
<td>6.65</td>
<td>6.85</td>
<td>7.05</td>
<td>7.15</td>
</tr>
</tbody>
</table>

After six-week treatment, an oral test was taken and showed an increase of students’ oral performance 73.25. The performance was improving in each cycle as presented in Table 2.

Table 2. Scores of oral performance tests

<table>
<thead>
<tr>
<th></th>
<th>Pre-cycle</th>
<th>Cycle 1 Test</th>
<th>Cycle 2 Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>20</td>
<td>62.7</td>
<td>68.9</td>
</tr>
</tbody>
</table>

Although, good figures and tables are interesting and easy to understand, but the most important thing is that the results / data presented in the figure or table are honest. If an image can only be understood with the support of research data which may require half or a full page of paper, then the data should be included as an appendix. Do not hide important data that raises reader questions or leads to mistrust of the reader.

The results section is written following the chronological order as presented in the method section. The important thing in presenting results is that the author must not include references in this section. This section is the “findings” of the author himself. However, if the results of the study are presented in a figure or table that directly compares with the findings of another person, the part of the figure or table must include the findings of that other person, without the need to discuss it in this section.

3.2 Discussion

Results reveal that the application of shadowing technique has an impact on improving students’ oral performance. Learning speaking cannot merely be separated from listening activities. Thus, listening practices also give contribution to increase oral skills. This technique is considered to improve listening skills [21] and listening comprehension skills [23][24].

Shadowing technique consists of phases (mumbling, prosody shadowing, synchronized reading, and ending with content shadowing). The early phase emphasizes listening and imitating practices then confirming what students just heard with the correct transcript. Shadowing technique facilitates students to imitate and repeat [3] as in working memory auditory input will be erased sooner when it is not rehearsed [16].

Then students read and listen, then reproduce the text (repeat, select, summarize orally) [3]. In this activity students do not only listen and imitate, but also select the oral information. Thus, they understand the content and meaning of the sentence, question, or dialogue they are listening to. At the end students are able to pronounce the input language. This is caused by an input to the working memory. Memory will recall verbal input and it led to good oral production [16]. The results show a relationship between shadowing technique and fluency of learners’ oral performance in EFL context [14]. However, the results do not support the study [5] who stated that shadowing technique does not promote students’ fluency.
4 Conclusion

The present study attempts to increase students’ oral performance using Shadowing technique. It was carried out in some phases including mumbling, prosody shadowing, synchronized reading, and ending with content shadowing. Listening logs provided to the students successfully assisted their listening and oral practices throughout two cycles. Hence it improved their pronunciation, intonation, and fluency. It gives much contribution to development of oral skills teaching and learning practices and is considered as relevant references for other studies. However, it only explores the implementation of Shadowing technique in terms of pronunciation, intonation, and fluency in university levels. Different components of oral performance are strongly suggested to explore for future studies.

Acknowledgement

The author expresses his thanks to Universitas Muhammadiyah Magelang for the financial supports in publishing this work, reviewers, and proof-readers.

References


Alphabetical Dice Row: Exploration and Evaluation Tool of Student’s Vocabulary Mastery

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Abstract. Nowadays, developing educational games is a challenge to the educators due to the massive modern and non-educational games. This research was aimed to evaluate the value of “Alphabetical Dice Row” as an exploration tool of students’ vocabulary mastery, to carry out a trial of the game implementation to the students and to evaluate the performance of students on the gameplay. The research was carried out with research and development design. The prototype of the game was valuated by expert and game trial was carried out to the elementary school’s students. Expert valuation of the game showed that the “Alphabetical Dice Row” is an excellent game, but still lack in materials, looks and attractiveness aspects. The result of the game trial in the other side showed several difficulties of the students in playing the game. Some limitations such as dice design and limitation of letter were suggested as the major problem in the game application. Therefore, further improvements are required in order to maintain the “fun” and “attractive” aspect of the game. However, the game is currently applicable effectively as the evaluating tool of students’ vocabulary mastery.

Keywords: attractiveness, dice, fun, game limitation

1 Introduction

Vocabulary mastery is an important matter to the elementary school students. Vocabulary mastery supports students’ ability to learn, not only in the language subject but also any other subjects [1], [2]. Furthermore, vocabulary mastery could affect the academic achievement of the students [3]. On the other side, vocabulary mastery is important in order someone to improve his/her communication skill, such as being able to select the exact word to express their idea [4]. Therefore, improvements of students’ vocabulary mastery is mandatory.

Vocabulary is mostly acquired through experience; therefore, vocabulary mastery varies among students. Various factors could affect one’s vocabulary acquirement as well as mastery, such as socio cultural background [3], reading and listening habit [5], [6], and social circumstances [7]–[9]. Therefore, one’s vocabulary will always get improved as he/she grow up. However, their circumstances would lead to differentiation of vocabulary mastery in specific field.

Vocabulary mastery is needed in any level of education with improved difficulty and complexity. Therefore, students with lower grade or lower education level are suggested to have lower and more dispersed vocabulary mastery [9]. In the case of elementary school students,
limited vocabulary mastery is generally found. Children tend to have common vocabulary due to the common knowledge they obtained.

Understanding students’ vocabulary mastery is an important process to provide better teaching strategy. Disparity in students’ vocabulary mastery might cause difficulties in teaching-learning activity [9]. Therefore, teachers need to take the students to the approximately similar vocabulary mastery [10]. Thus, exploration of students’ vocabulary mastery needs to be carried out.

In order to improve their vocabulary mastery, they should keep exploring so that they could obtain new vocabularies. Vocabulary acquisition could occur incidentally [11]. Thus, any activity which involves reading, listening, speaking and writing has potential to improve vocabulary mastery. The main process of vocabulary improvement is introduction of new vocabularies to the students. Therefore, various method could be used, such as reading, listening, writing, story dictation [12]–[14],

Elementary school students need to actively improve their vocabulary mastery in order to obtain better learning experience. Unfortunately, students’ interest on vocabulary mastery is generally low. Therefore, attractive methods are needed to stimulate students’ interest to learn vocabulary [15]. Various learning instruments have been developed in order to support children’s vocabulary learning. However, each student may have different preference regarding the method/instrument. Therefore, the more instruments available for the purposes should provide better chance to effectively improve vocabulary mastery. Instead of the function as learning media, some tools could also be used as evaluation tools for vocabulary mastery. For example, several games require its player to recall their memories/knowledge. Thus, it works as improvement and maintaining tool of memory.

Vocabulary learning is important to the students. There are various methods to improve vocabulary mastery, such as reading, writing and interactive multimedia [16]–[18]. However, using formal method would cause the students to get bored [17]. Game is one among the approaches which could be used to improve students’ vocabulary mastery in the fun way. It is considered as the effective method to improve children’s vocabulary significantly [19]. Among the games used as the tool of vocabulary mastery improvement are puzzle, crosswords [1], quizlet [20] and scrabble [21].

Educational game, especially which are played in groups should have two impacts to the player, including the educating impact and evaluating impact. Children with different level of vocabulary mastery would have transfer of knowledge. Children with more vocabulary would unintentionally provide new vocabulary input to the children with less vocabulary. This is considered as the educating impact. In the meantime, children with more vocabulary are challenged to recall their knowledge of the vocabulary. This is considered as the evaluating impact. Therefore, both types of players would obtain educational benefit during the game.

The research aimed to evaluate the value of “Alphabetical Dice Row” as an exploration tool of students’ vocabulary mastery, to carry out a trial of the game implementation to the students and to evaluate the performance of students on the gameplay.

2 Method

The research was carried out through Research and Development (R & D) method. The research was carried out in three steps. The first step was media development, followed by expert valuation and the last was field trial. The prototype, the “Alphabetical Dice Row” was
created using 3D-printer consisted of designated board and dice. Since the “Alphabetical Dice Row” is an invention purposed for vocabulary learning, therefore the game should include the technical guideline of the gameplay. Expert valuation was provided by academic experts. Valuation was carried out to six aspects of the game, including: efficiency, materials, looks, build quality, attractiveness and handbook’s informativeness. Field trial was carried out to several students from the 1st to 6th grade through game play. As many as 68 students were involved in the trial. The game was played in pair for approximately two hours, which gave the students to play for five sets. Data collection on the result of the game trial were including the number of vocabularies formed by the student, group of vocabulary, and five most frequent words. Since the words could be random or even meaningless based on the students’ knowledge, the result was filtered using the Indonesian Dictionary. Therefore, only the words that are contained in the dictionary was used as valid data while foreign words as well as acronym was considered as invalid and removed from the analysis. Descriptive data analysis was carried out to provide information concerning the performance of “Alphabetic Dice Row” as a tool to evaluate students’ vocabulary mastery.

3 Results and Discussion

3.1 Game description

The “alphabetical dice row” is a game purposed to arrange serial letters into words. Therefore, it requires a set of letter dices and playboard. The playboard is designated as square board consisted of 11 blocks horizontally and vertically as the media to place the letter dices to form a word at each row. Each set of playboard consists of one board and 100 dices. There are five formation of dices consisting combinations of letters, including:

- Dice 1: A1, N1, H2, Y2, Q3, F3
- Dice 2: I1, M1, K2, T2, V3, F3
- Dice 3: U1, D1, L2, R2, W3, F3
- Dice 4: E1, C1, P2, J2, X3, F3
- Dice 5: O1, B1, S2, G2, Z3, F3

Each letter in the dice is followed by a number. The number showed the value (weight) of the letter. The higher the value shows the higher difficulty it has to be used to form a word. The numbers are later used as a tool to value the students’ score based on the word they arrange. Figure 1 shows the look of the playboard and the dices of the “Alphabetical Dice Row”.

Figure 1 shows the look of the playboard and the dices of the “Alphabetical Dice Row”.
3.2 Gameplay

The “Alphabetical Dice Row” could be played effectively by 2 – 4 children. However, each player should have the playboard set in order to have a fairplay. The game is played in turns. The turns is determined by the alphabetical row the players get through blind picking. The game is started by picking nine dices randomly for each player. The number of dices in the player hands should stay constant. Therefore, after using the dices to arrange a word, the player should pick other dices as many as the used dices. The first player should arrange a word on the playboard using the dices in their hands, followed by the second player and so on. The game ends when the board is full or no player can arrange another word. Each word should consist of at least two letters.

3.3 Game valuation

Expert valuation of the game showed that there were some aspects with lack value, including the materials, attractiveness and looks. Among the evaluated aspects, the quality had the highest score, followed by efficiency and handbook’s informativeness. The score of each evaluated aspects were: quality – 24; efficiency – 15; handbook’s informativeness – 14; looks – 11; attractiveness – 8; and materials – 7. Total score of the media was 79 which showed an excellent value. However, improvements on the materials, attractiveness and looks are required.

3.4 Game trial

The game trial was carried out only to evaluate media the vocabulary mastery of the students. According to the result, as many as 514 words from 297 unique vocabularies came up during the trial. However, only 484 words from 278 unique vocabularies were valid. The number of valid words the students arranged was between 2 to 11 words/student with the average of 7 words/student. The analysis result showed that the words could be grouped into 7 vocabulary groups, including noun, verbs, adjectives, adverbs, pronouns, numeralia and conjunction. Based on the analysis result, noun was the most dominant vocabulary group. Noun covers 75.2% of total vocabulary, followed by adjectives with only 11.9%. Among the words, some came up frequently. The most frequent words came up during the trial were: aku (I/me) – 16 times, ayam (chicken) – 10 times, api (fire) – 9 times, apa (what?) – 9 times and sapi (cow) – 8 times.
3.5 Discussion

Games have been used as media of education since ancient times. However, due to the advancement in knowledge and technology, an evolution to the games occurs from traditional games to digital games. Educational games provide the opportunity to the players to develop their cognitive skills [22]. Therefore, educational games should be designed appropriately to provide expected feedback.

According to the expert judgement, the educational game “Alphabetical Dice Row” developed in this research still needs improvements in the aspects of material, attractiveness and looks. Nowadays, developing an attractive educational game is a challenge since there are many other games accessible to children. Educational games should be able to compete the common (non-educational) games. Therefore, the games should provide the content with children’s interest.

The term “game” should carry the image that it is fun [23]. Therefore, it should also be enjoyable. However, overdoing in a game could cause stress [24], [25]. According to Kordaki [22], the design of education game should consider the context, active and constructive participation, scaffolding, content and structure. Due to the advancement of technology, children prefer play the digital games than traditional games. Unfortunately, some games contain violence which could affect children’s behavior [26]. Lazarou [27] suggested the following steps in developing educational game: 1) identification of relevant activity system, 2) identification of motives, needs and expectations, 3) determination of game elements, and 4) development of the game.

Referring to the result of the game trial, it seemed like the students had difficulties in playing the games. It was shown by the low word formation. This could be caused by the limited letter combination and availability. Since the letter is limited, the used letter could not be used again until the game is restarted. This kind of obstacle would cause the player to get stress. Thus, the game would lose the “fun” or “attractive” aspect. Therefore, enrichment of letter combination should be considered in order to reduce the obstacles in playing the game.

Exploration of the vocabulary mastery showed the dominance of nouns as the result followed by adjectives. The limited vocabulary mastery of the students was the main reason for the result. Generally, student’s acknowledgement is limited to their surrounding. Therefore, they tend to acknowledge nouns better than any other groups of vocabulary. However, limited vocabulary of the other groups could also be caused by the limited number of vocabularies itself. Another possibility is the limited letters which could be used to arrange the word. Another vocabulary game “scrabble” uses limited letters as the challenge of knowledge. However, in the “Alphabetical Dice Row” the difficulty level is altered.

The frequency of the students interact with vocabulary would affect how they recall it. The words which are frequently used in daily communication or the objects they frequently see in their daily activities would make it easier to recall. Contrary, it would be harder to recall the word, object or terms they seldom use or see in their daily life. Recalling verbs in Indonesian is rather difficult for children. Verbs in Indonesian generally need prefix or prefix and suffix. Therefore, unless the students know the root word, it would be hard to recall it during the game.

Low vocabulary mastery could occur not only student at lower grades, but also at higher grades [1]. However, each should have minimum vocabulary mastery. Playing educational games focusing on vocabulary should develop interaction between the students with different level of mastery. It is expected to stimulate indirect learning of vocabulary to the students with lower mastery. Well-designed game should be able to develop new knowledge and skill of the player (children) which could be useful during in-class or off-class activities [22].
Low vocabulary mastery lead to the difficulties in accepting and expressing thoughts and ideas in the class [1]. Therefore, vocabulary mastery is important for students in order to develop their knowledge, improve their capability of learning, reading, listening, speaking, and writing [14], [28]–[30]. Using the “Alphabetical Dice Row” clearly could stimulate the students to show their vocabulary mastery. However, according to the result, the game is still lack of several aspects regarding its design as well as its application.

Educational game is expected to help students to improve their learning activity in a fun informal way. However, not every game has significant effect on the students’ cognitive development [21]. This is due to their cognitive preference. Therefore, all students need to find the games appropriate to their cognitive preferences. Based on the trial result, it could be considered that “Alphabetical Dice Row” could be implemented in teaching or evaluating students’ vocabulary mastery. However, further improvements are still needed in order to alter the attractiveness, effectiveness and efficiency of the game.

4 Conclusion

The educational game “Alphabetical Dice Row” has an excellent value as vocabulary learning/evaluating game, but still lack of materials, looks and attractiveness aspects. The game trial indicated that the game seems to have high level of difficulties for elementary school students, therefore it needs more improvements. In the other side, the game could be used as an evaluating tool of the students’ vocabulary mastery.

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References


[25] M. Bijvank, E. A. Konijn, and B. J. Bushman, “‘We don’t need no education’: Video game preferences, video game motivations, and aggressiveness among adolescent boys of different


The Effect of Finger Hold and Music Therapy to Insomnia in Elderly

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Abstract. Insomnia is one of the complaints felt by the elders. In Indonesia, prevalence rate of insomnia in Indonesia is around 67 percent. Insomnia increases in women up to 40 percent at the age of forty-fifty years old. The one of pharmacological therapy for insomnia is given finger hold and music therapy. Finger hold therapy will stimulate the release of the hormone melatonin and music will produce β endorphin and encephalin substances, both of which can make the body relax, calm, reduce pain and cause feelings of pleasure. The purpose of the study to know the effect of finger hold and music therapy to insomnia in elderly at Ngadiharjo Village Borobudur District, Magelang Regency. The research method used is quays experiment with two group pre and post with control group. The sample used was 46 people and separted to the group there is 23 people. Sample technique used was proportional random sampling. The differences in insomnia level after finger hold and music therapy in intervention group and control group is < 0,05 with p value 0,000. There is an influence of finger hold and music therapy on the level of insomnia in the elderly in Ngadiharjo Village, Borobudur District, Magelang Regency in 2019. Such therapy can be used as alternative therapy or complementary therapy to overcome insomnia the elderly.

Keywords: Insomnia, finger hold, music therapy, elderly

1 Introduction

Every human being will experience increasing age which is a physiological process, in the process of aging a person will experience physical, mental and socio-economic problems. One of the problems that occur in the elderly is sleep disorders or what is often called insomnia. About 50%, experienced insomnia by age 65 years or older. In Indonesia, the decrease in sleep effectiveness experienced by the elderly at night is 70% to 80% compared to young people. The percentage of people with insomnia is higher in the elderly, where 1 in 4 at the age of 60 years or older experiences very serious insomnia.

Increasing age does not change the total amount of sleep, but in the elderly the quality of sleep changes. Adults and seniors spend an average of 6.5 to 7.5 hours of sleep over a 24-hour period. However, every year the prevalence of sleep disorders increases with age and the aging process. Kaplan and Sadock reported that approximately 40-50% of the elderly population suffer from sleep disorders. In the elderly, changes in the hormone melatonin (which regulates sleep and rest rhythms) are found so that the elderly experience sleep disturbances [1]. Sleep disturbances can occur in all levels of age, but it is more often a complaint among the elderly.
Insomnia in the elderly is caused by lack of physical activity throughout the day, sleeping intermittently throughout the day, anxiety and depression, uncomfortable room atmosphere, frequent urination at night and urinary tract infections [4].

The impact of insomnia is physical health losses such as heart problems, diabetes, weak antibodies, and chronic fatigue, psychological losses and financial losses. Physiologically, poor sleep quality is associated with decreased memory and concentration such as disorientation, forgetfulness, confusion and impaired performance in psychomotor tests. Sleep disturbances are also associated with an increased risk of falls, cognitive decline, and higher death rates. Insomnia, if underestimated, is tantamount to letting the body weaken gradually, which can cause serious health problems and reduce the quality of life of the elderly [7].

Based on a preliminary study conducted by researchers in Ngadiharjo Village, Borobudur District, on 10 elderly people, there were 7 elderlies who said they could not sleep at night due to stress and unhealthy lifestyles, so that the elderly felt unfocused and disturbed their activities during the day. Of 7 elderlies, 2 elderly experienced mild insomnia (28.6%), 4 elderly experienced moderate insomnia (57.1%) and 1 elderly experienced severe insomnia (14.3%). To stimulate sleep, the elderly had previously made efforts by praying and dhikr before going to sleep, some did not make any efforts. They think that insomnia is not a problem that should be handled, even though insomnia will be bad for the long term. When interviewed, they said they liked Javanese music in the keroncong genre and often heard Javanese music at home while resting, the elderly also said they felt comfortable and relaxed and the Javanese music made them feel sleepy when listening to them.

Finger grip relaxation against insomnia can be combined with music therapy so that it is expected to have a maximum effect in helping the elderly comfort. Music can touch individuals both physically, psychosocial, emotionally and spiritually. Musical vibrations that are closely tied to the basic body frequencies or vibration patterns have a very powerful healing effect on the human body, mind and soul [4].

2 Method

The research design used in this study was a Quays Experiment with Two Group pre-test and post-test with a control group design, which consisted of an intervention group and a control group who were given different interventions and then the results of the 2 groups were compared. In this study, the first group was given a combination of finger grip therapy and music therapy intervention by measuring before and after the intervention. the second group was not given treatment and was used as a control group. To be able to find out whether there is an effect of giving a combination of finger grip therapy and music therapy in the intervention group, the results after treatment (post-test) are then compared with the control group (pre-test).

The sampling technique in this research is proportional random sampling, which is simple random sampling and the technique is divided into two ways by drawing or also by using a table of numbers or random numbers. The population was 1280 elderly people over 60 years of age in Ngadiharjo Borobudur Village, while the study sample consisted of 23 respondents for each intervention group and control group, so that the total number of respondents was 46 respondents.
3 Results and Discussion

3.1 The Effect of Finger Grip Therapy and Music on Insomnia Levels Before and After Action in the Intervention Group

The differences in insomnia level after finger hold and music therapy in intervention group and control group is < 0.05 with p value 0.000. Based on table 1 shows that there are 23 respondents who experienced a decrease in the level of insomnia before and after being given finger grip therapy and music.

Table 1. Insomnia Level

<table>
<thead>
<tr>
<th>Insomnia level</th>
<th>Mean</th>
<th>Mean Different</th>
<th>Sd</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before</td>
<td>27.91</td>
<td>3.75</td>
<td>4.889</td>
<td>0.000</td>
</tr>
<tr>
<td>After</td>
<td>24.17</td>
<td>4.217</td>
<td>4.217</td>
<td></td>
</tr>
</tbody>
</table>

*Uji Wilcoxon, 2020

The average result of the insomnia level before being given finger grip therapy and music was 27.91 with a standard deviation of 4.889 and after being given finger grip therapy and music, the average insomnia level was 24.17 with a standard deviation of 4.217. The difference between before and after being given finger grip therapy and music was 3.75 with p = 0.000 and Z count of 4.235. This means that the p value <0.05 and Z count> Z which indicates that there is a significant decrease between before and after being given finger grip therapy and music. From this table, it is known that there is an effect of finger grip therapy and music to reduce the respondents' insomnia level.

The research conducted by these researchers used finger hand held therapy and music because finger handheld therapy can stimulate the release of the hormone melatonin which stimulates sleep and listening to music can produce β endorphins and enkephalin which are sleep neurotransmitters. This is supported by research by Pinandita [6] which states that the human body produces energy, this energy flows through the meridian system that connects various organs of the body. Meridian energy in the hand provides reflex stimulation when grasped, this stimulation will send a kind of shock or electricity to the brain. These waves are received by the brain and processed quickly and then forwarded to the nerves in the affected organs, so that the blockages in the energy pathway become smooth [6]. Physiologically, this stimulation will trigger the release of the hormone melatonin which plays an important role in the regulation of biological functions that regulate sleep and rest rhythm so that insomnia can decrease [1]. Meanwhile, Natalina's research [5] states that Javanese music therapy can produce β endorphins and enkephalin, which are sleep neurotransmitters. able to make the body relax, reduce pain and cause feelings of pleasure so that the elderly can fall asleep more easily.

The measurement of insomnia levels before and after the intervention was carried out using the IRS (Insomnia Rating Scale) questionnaire. Researchers chose to use the IRS because it has been standardized by the KSPBJ (Jakarta Biological Psychiatry Study Group). IRS is used to measure insomnia starting from problems with sleep entry disturbances, sleep duration, sleep quality and quality after waking up. In a study conducted by Erlina using the KSBPJ-IRS questionnaire, the validity results were 0.89 and 0.83 reliability was carried out by 30 elderly people at the Wedha Cipray Bandung Home, then developed by Buysse [3] to measure sleep quality in several categories consisting of no insomnia, mild insomnia, moderate insomnia and severe insomnia.
3.2 Effect of finger grip therapy and music on insomnia levels before and after action in the control group

Based on Table 2, the differences in insomnia level after finger hold and music therapy in intervention group and control group is > 0.05 with p value 0.102. The decrease in insomnia levels may occur if respondents understand and apply the information provided by researchers to reduce insomnia.

Table 2. Insomnia level after finger hold and music therapy

<table>
<thead>
<tr>
<th>Insomnia level</th>
<th>Mean</th>
<th>Mean Different</th>
<th>Sd</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre intervention</td>
<td>27.74</td>
<td>0.2</td>
<td>5.110</td>
<td>0.102</td>
</tr>
<tr>
<td>Post intervention</td>
<td>27.52</td>
<td></td>
<td>5.026</td>
<td></td>
</tr>
</tbody>
</table>

*Uji Wilcoxon, 2020

Providing education and information related to insomnia can increase knowledge so that there is awareness to take action and control the influencing factors so as to reduce insomnia and improve the degree of health. This is supported by Notoatmojo that health promotion is not only attempted to facilitate changes in therapeutic behavior, health promotion is also a process of community awareness or giving and increasing public knowledge about health.

The results of this study are in line with the research conducted by Sri Aditayi (2010) in the control group, it is known that the difference in the mean value of post-test insomnia is 11.67. The results of statistical tests using the paired t-test sample test obtained a t value of 0.535 with a probability value of Sig (tailed) of 0.601 which is greater than 0.05, which means that there is no significant difference in the degree of insomnia between the pre-test and post-test. The mean degree of insomnia in the control group also decreased, although the decrease was not significant, because the elderly in this group underwent activities programmed by the PTSW Budi Luhur unit. These activities, such as skills, arts, and gymnastics for the elderly, are relaxation activities that can reduce tension and anxiety in the elderly.

3.3 Effect of finger grip therapy and music before and after action on the intervention group and control group

Based on Table 3, experienced a decrease in the average level of insomnia before and after given action, in the intervention group 19.41, while in the control group 27.59; the difference before and after treatment was 8.18 with p value= 0.038 and Z count of -2.071.

Table 3. Effect of finger grip therapy and music

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Mean</th>
<th>Mean Different</th>
<th>Z</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervention group</td>
<td>19.41</td>
<td>8.18</td>
<td>-2.071</td>
<td>0.038</td>
</tr>
<tr>
<td>Control group</td>
<td>27.59</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This means that the p value <0.05 and Z count > Z which indicates that there is a significant difference between giving finger grip therapy and music and those not given finger grip therapy and music on the level of insomnia in respondents. From the table above, it can be seen that there is a significant effect between finger grip therapy and music to reduce the level of insomnia among respondents (p value= 0.038).
The problem that usually occurs in the elderly is sleep disturbance / insomnia. Insomnia is a condition in which a person has difficulty starting to sleep, maintaining sleep and waking up too early [7]. Research shows that people who get sleep deprived easily remembering information, but the difficulty in conveying or using the information is due to the physical condition, especially mental decline due to lack of rest. The causes of insomnia in the elderly consist of several factors such as increased drug consumption, death of a spouse or close friend, retirement and social patterns. Insomnia in the elderly is caused by anxiety about the negative feelings they experience [7]. Insomnia in the elderly is caused by lack of physical activity throughout the day, sleep intermittently throughout the day, anxiety and depression, uncomfortable room atmosphere, frequent urination at night and urinary tract infections [4].

The impact of insomnia, namely an increase in the risk of falling, cognitive decline, and a higher mortality rate. Insomnia if underestimated is the same as letting the body weaken gradually, so that it can cause serious health problems and reduce the quality of life of the elderly [7]. The long-term impact of insomnia is to increase the risk of death and even depression. Giving finger and music handheld therapy is by preparing music before doing finger grip therapy. The music used is Javanese keroncong style music with soft rhythm and slow tempo. Keroncong music therapy is given for 10 minutes before going to bed for 8 times at night. When given music therapy, respondents are encouraged to grasp the fingers for a duration of 2 minutes per finger [2]. In this study, researchers only taught therapy during the day and advised respondents to repeat it at night before going to bed.

Hand-held finger therapy and music can stimulate the release of the hormone melatonin which stimulates sleep and listening to music can produce, endorphins and encephalin which are sleep neurotransmitters. This is supported by research by Pinandita [6], which states that the human body produces energy, this energy flows through the meridian system that connects various organs of the body. Meridian energy in the hand provides reflex stimulation when grasped, this stimulation will send a kind of shock or electricity to the brain. These waves are received by the brain and processed quickly and then forwarded to the nerves in the affected organ, so that the blockage in the energy pathway becomes smooth [6]. Physiologically, this stimulation will trigger the release of the hormone melatonin which plays an important role in the regulation of biological functions that regulate sleep and rest rhythm so that insomnia can decrease [1]. Whereas in Natalina's research [5], Javanese music therapy can produce β endorphin and encephalin substances which are sleep neurotransmitters, able to relax the body, reduce pain and cause feelings of pleasure so that the elderly can fall asleep more easily. Javanese music can be used as a therapy with a cultural approach [8]. The cultural approach through the application of Javanese style music is a development of philosophy as a reference for a science. Insomnia level graph showed on Figure 1.

![Insomnia level graph](image-url)
Based on the Figure 1, it can be concluded that after intervention for 8 consecutive days there was a significant decrease on the third and sixth day with an average decrease of 0.525.

4 Conclusion

There is an effect of reducing the level of insomnia, before and after finger grip therapy and Javanese music with a significance level of 0.000. There was a significant difference in the reduction in the level of insomnia, between the intervention group and the control group after finger grip therapy and Javanese music, with a significance level of 0.038. Javanese music can be used as a therapy by applying a cultural approach

References

How is Mathematics taught in Pandemic Era? An exploratory Study in Primary School in Indonesia

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Abstract. The purpose of this study is to describe the learning process of Mathematics during the Covid-19 pandemic. This goal is to be achieved because learning mathematics is a fairly complex subject. This research uses qualitative research. This research applies an exploratory case study aims to get information about how mathematics learning during the covid-19 pandemic. The data collection method in this research using semi-structured interviews that were made primary data. Meanwhile, secondary data is in the form of studies References. Interviews were conducted in a semi-structured manner. Interviews were carried out by giving questionnaires and confirmation by telephone or WhatsApp. Telephone interviews were conducted for confirmation and in-depth interviews. Interviews conducted by telephone are intended to support physical distancing which is applied to prevent transmission of Covid-19. The mathematics learning process carried out by teachers during the Covid-19 pandemic consisted of online and offline processes. Teachers are still trying to do various ways to create maximum mathematics learning in elementary schools during the Covid-19 pandemic. In implementing mathematics learning activities during the Covid-19 pandemic, teachers did not only apply one method, but combined more than one method.

Keywords: mathematics learning; learning methods; covid-19

1 Introduction

At this time the whole world has been hit by a pandemic, all aspects of life are affected, including the education system. Almost all countries have closed access to face-to-face learning in classrooms, including Indonesia. One way to break the chain of spreading covid-19 is by limiting community interaction which is applied by the term physical distancing [1] [2]. The Indonesian government has also closed access to face-to-face learning since March 16, 2020 to reduce the current spread of the Covid-19 virus. All learning activities become distance learning with teachers and students in their respective homes [3]. Covid-19 is one of the pandemics that has been going on for a long time in Indonesia. Based on information obtained from the PHEOC of the Indonesian Ministry of Health, on June 11, 2020, the number of confirmed positive cases totaled 35,295, 12,636 recovered cases, and 2000 died [4].

Learning activities during the Covid-19 pandemic are carried out in various ways so that the substance of the material is conveyed. The current pandemic condition requires educators, in this case, teachers to innovate in changing face-to-face learning patterns into face-to-face learning patterns [5]. The existence of physical restrictions causes student learning activities to be carried out at home. The impact of these conditions requires students to be able to learn independently. Learning independence is one of the important things in a learning process [6].
However, there are many factors that influence the success of students in the learning process at home [7]. This is because the teacher's control in learning at home cannot be maximized as during direct learning in class.

Particularly in assigning assignments, the thing that needs to be considered is that in its implementation, it must be monitoring and mentoring by teachers [8]. Apart from teachers, the role of parents is very important in accompanying children's learning at home, where learning is currently taking place online [9]. Learning assistance is carried out not only in certain subjects, but mentoring needs to be done in all lessons. One of the subjects that got a big impact from various aspects during the Covid-19 pandemic is Mathematics. Moreover, one of the current problems is that there are still many students who think mathematics is a difficult subject [1].

Learning mathematics is one of the contents in thematic learning in elementary schools. Basically, mathematics learning has abstract characteristics, and its concepts and principles are tiered [10]. Relating to mathematics teaching in schools, the program or activity which will be done should also refer to the regulation. In the current curriculum (Curriculum 2013), since 2018 the teaching of mathematics for higher elementary school grades (grade 4, 5, and 6) there is an additional portion (other than the thematic lesson) for 6 × 35 minutes in a week. This will allow the mathematics lesson to be done completely but still comprehensive [11]. Learning mathematics that is abstract and difficult makes students tend to experience difficulties in understanding mathematical concepts [12]. For this reason, even before the Covid-19 pandemic, Mathematics already had many challenges, both in terms of material, students, and teaching methods. With the covid-19 pandemic which limits access to interaction, of course, it adds to the challenge, especially in delivering material so that it can be absorbed optimally. Due to these conditions, the purpose of this study is to provide information about the ways teachers teach mathematics during the Covid-19 pandemic. With this information, it is hoped that teachers will have many references and methods for teaching mathematics during the Covid-19 pandemic.

2 Method

This research uses qualitative research. The design used is an exploratory case study which aims to obtain information about how mathematics is taught during the Covid-19 pandemic. This research is limited to the elementary school level. The data collection method in this study used semi-structured interviews which were used as primary data. Meanwhile, secondary data is in the form of literature study. Interviews were conducted in a semi-structured manner. Interviews were conducted by providing questionnaires and confirmation by telephone or Whatsapp. Telephone interviews were conducted for confirmation and in-depth interviews so that the data obtained was more complete. Interviews conducted by telephone are intended to support physical distancing which is applied to prevent transmission of Covid-19.

The research subjects used 184 respondents. These respondents are teachers who teach Mathematics at the elementary school level with a grade level of 1-6. The interview guide used in this study is to confirm the methods used by the teacher in teaching Mathematics during Covid-19, as well as the reasons for choosing the method used by the teacher to teach Math during covid-19.
3 Results and Discussion

The research begins by sending a questionnaire to teachers who teach at the elementary school level, specifically on learning mathematics. The questionnaire data was also confirmed by telephone or whatsapp. This is to validate data and add information in the field, regarding Mathematics learning carried out by teachers during the Covid-19 pandemic. Table 1 is the classification of the respondent's data used in this study.

Table 1. Data on Primary School Mathematics Teacher Respondents

<table>
<thead>
<tr>
<th>No</th>
<th>Class</th>
<th>Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I</td>
<td>20</td>
</tr>
<tr>
<td>2</td>
<td>II</td>
<td>45</td>
</tr>
<tr>
<td>3</td>
<td>III</td>
<td>38</td>
</tr>
<tr>
<td>4</td>
<td>IV</td>
<td>34</td>
</tr>
<tr>
<td>5</td>
<td>V</td>
<td>29</td>
</tr>
<tr>
<td>6</td>
<td>VI</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>184</strong></td>
</tr>
</tbody>
</table>

Source: Processed Data, 2020

From 184 respondents, data is presented in table 2 regarding the acquisition of information on Mathematics learning methods carried out by teachers during the Covid-19 pandemic. The data obtained exceeds the number of respondents because each respondent applies more than one type of method when learning mathematics. Table 2 show data regarding the methods used by teachers in learning Mathematics during the Covid-19.

Table 2. Data regarding the methods used by teachers in learning Mathematics during the Covid-19

<table>
<thead>
<tr>
<th>No</th>
<th>The Method Used</th>
<th>Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Voice Note</td>
<td>54</td>
</tr>
<tr>
<td>2</td>
<td>Sending Video</td>
<td>69</td>
</tr>
<tr>
<td>3</td>
<td>Whatsapp Group</td>
<td>184</td>
</tr>
<tr>
<td>4</td>
<td>Youtube</td>
<td>96</td>
</tr>
<tr>
<td>5</td>
<td>Direct visit</td>
<td>41</td>
</tr>
<tr>
<td>6</td>
<td>Zoom Meeting</td>
<td>56</td>
</tr>
<tr>
<td>7</td>
<td>Google Meet</td>
<td>38</td>
</tr>
<tr>
<td>8</td>
<td>Google Classroom</td>
<td>102</td>
</tr>
<tr>
<td>9</td>
<td>Google Form</td>
<td>180</td>
</tr>
<tr>
<td>10</td>
<td>Quizizz</td>
<td>23</td>
</tr>
<tr>
<td>11</td>
<td>Taking assignments to school</td>
<td>184</td>
</tr>
<tr>
<td>12</td>
<td>Television</td>
<td>19</td>
</tr>
<tr>
<td>13</td>
<td>Radio Streaming</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>1064</strong></td>
</tr>
</tbody>
</table>

Figure 1 is data regarding the methods used by teachers while teaching Mathematics during the Covid-19 Pandemic in diagrammatic form. Through the data in the form of a diagram, we can observe more clearly the distribution of the information data obtained. In Figure 1, additional information can be described regarding the classification of mathematics learning activities that are in the online category and the offline category. The online category of methods consists of Quizizz, Television, Radio Streaming, Voice Note, Sending Video, Google Form,
Whatsapp Group, Google Classroom, Google Meet, Zoom Meeting, and Youtube. The offline method category consists of direct visits and taking assignments to school during the Covid-19 pandemic.

To see the comparison of online and offline learning during the Covid-19 pandemic, we can observe in Figure 2. Figure 2 provides information that for the selection of methods, online learning methods are much greater than offline methods. The online method consists of 11 types, while the offline method consists of 2 ways. In addition to that information, online learning has been widely promoted to replace traditional face-to-face learning during the COVID-19 pandemic to maintain young children’s learning and play at home [13].

Fig. 1. Diagram of the Results of Data Acquisition Learning Methods Used by teachers in Mathematics learning during the Covid-19 pandemic

Fig. 2. Data on differences in the number of online and offline categories
In choosing a method, of course the teacher also has a reason or background. This is so that the teaching process can run optimally, and mistakes or deficiencies in teaching can be minimized. The background of the teacher's choice of methods is presented in Table 3. This data exceeds the number of respondents because many respondents chose more than one background in choosing the method. This is important information that every teacher really thinks about the concept of learning that is being carried out. This is of course so that teaching activities can run optimally and according to the needs of students.

**Table 3.** Teacher background data in choosing the method chosen when learning mathematics

<table>
<thead>
<tr>
<th>No</th>
<th>Reason for Selection</th>
<th>Voter</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Easy to apply</td>
<td>184</td>
</tr>
<tr>
<td>2</td>
<td>Can greet students</td>
<td>51</td>
</tr>
<tr>
<td>3</td>
<td>Cost effective</td>
<td>180</td>
</tr>
<tr>
<td>4</td>
<td>Preparation doesn't take long</td>
<td>160</td>
</tr>
<tr>
<td>5</td>
<td>Helping students who don't have devices</td>
<td>120</td>
</tr>
<tr>
<td>6</td>
<td>Can organize evaluations</td>
<td>58</td>
</tr>
</tbody>
</table>

In Figure 3, data is presented regarding the distribution of teacher background information in choosing mathematics learning methods during the Covid-19 pandemic.

**Fig. 3.** Teacher background data in choosing the method chosen when learning mathematics in the form of a diagram

During the in-depth interviews conducted with respondents, some important information was obtained regarding the learning process of mathematics during the Covid-19 pandemic. The first information, learning mathematics when Covid-19 requires much more preparation than before Covid-19. The process carried out by the teacher often combines more than 1 method so that the material can be absorbed optimally. This condition requires teachers to be more creative
in applying mathematics learning methods during the Covid-19 pandemic, both online and offline.

The second information is the emergence of data on the dishonesty of student work results. When the teacher gives assignments online, the results often score high. Whereas when it was confirmed to students, when schools provided face-to-face time with very limited duration, students showed very different results. The students who had high scores, when confirmed regarding the material received did not show the same level of understanding. Conditions like this require teachers to always remind parents that learning assistance at home does not end up doing assignments, tasks are still done by children themselves through guidance from parents so that children understand the tasks being done.

Third, the appropriate method of teaching mathematics cannot be determined from one or two choices. During implementation, teachers must continue to innovate to find effective ways that can be used in mathematics learning activities. Student conditions, geographic conditions where students live, conditions of parental education, grade level, are some of the reasons that not all schools can apply the same method in implementing mathematics learning during Covid-19. However, teachers remain the main determinant of the direction of mathematics learning during the Covid-19 pandemic.

4 Conclusion

The mathematics learning process carried out by teachers during the Covid-19 pandemic consisted of online and offline processes. Online learning on mathematics consists of Quizizz, Television, Radio Streaming, Voice Note, Sending Video, Google Form, Whatsapp Group, Google Classroom, Google Meet, Zoom Meeting, and Youtube. Meanwhile, offline learning consists of direct visits and taking assignments to school. Teachers are still trying to do various ways to create maximum mathematics learning in elementary schools during the Covid-19 pandemic. In implementing mathematics learning activities during the Covid-19 pandemic, teachers did not only apply one method, but combined more than one method. The results of this study are useful for mathematics teachers in determining appropriate learning methods during the Covid-19 pandemic.

Acknowledgement

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References


Deconstructing the Concept of Community Empowerment in the Use of Village Funds in Borobudur District 2015-2017

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Abstract. The aim of this study is to determine the perception of the village government on the concept of community empowerment. This perception leads to the development of policies on the use of village funds. Therefore, this research is based on the practice of using funds which are mostly used for physical developmental activities than for community empowerment. To achieve this goal, empirical legal research methods would be combined with the sociological juridical research model. Therefore, it is required to explore the perceptions of the village government on community empowerment. The sample location was determined purposively in 20 villages in Borobudur District. Furthermore, the data obtained through in-depth interviews were then analyzed and presented qualitatively. The results showed a change in perception in the dichotomous concept of empowerment towards development. This perception, therefore, creates a document for planning, budgeting, and reporting the use of village funds. Furthermore, the policy used in channeling village funds sourced from the APBN and APBD has helped in accelerating village development, but, it has also degraded the local values of the village community, in terms of cooperation. However, it is important to formulate and make policies on participatory village fund distribution based on local community values.

Keywords: Perception, village funds, community empowerment

1 Introduction

Village funds are used to finance governance, development, community empowerment, and make societies more developed and empowered [1]. This provision is the basis for the use of village funds in Borobudur District, Magelang Regency on 2015-2017. Allocation of the use of village fund in the district of Borobudur showed on Table 1.

Table 1. Allocation of the use of village funds in the district of Borobudur Magelang 2015-2017

<table>
<thead>
<tr>
<th>Year</th>
<th>Development</th>
<th>Empowerment</th>
<th>Coaching</th>
<th>Financing</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>96%</td>
<td>2%</td>
<td>2%</td>
<td>-</td>
</tr>
<tr>
<td>2016</td>
<td>84%</td>
<td>12%</td>
<td>2%</td>
<td>-</td>
</tr>
<tr>
<td>2017</td>
<td>85%</td>
<td>12%</td>
<td>3%</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: Consolidated Report on the Realization of Village Fund Absorption at Magelang Regency in 2017
The disparity in the use of village funds for development and empowerment gives a perception that empowerment is different from development. However, development gets a bigger budget, because it is considered more important. Priority use of village funds for development is based on considerations first, physical infrastructure is important for community development. Secondly, the outcome of the development is directly felt by the community. Thirdly, it is easily accountable. Fourth, the benefits enjoyed by the community, and fifth, it can create jobs for the community [2].

There are differences between the classification of priorities in the field of development and community empowerment. Although when interrelated, empowerment is one of the development strategies. However, not all development is empowerment. In line with the above phenomena, the hypothesis appears as a misperception of the community. Which in this case, is the village government, towards development and empowerment. This perception will, in turn, create policies for the use of village funds. Therefore, this study aims to analyze various legal phenomena related to the use of village funds for community empowerment. This phenomenon is a result of the perceptions about community empowerment.

2 Methods

An empirical legal research method and a sociological legal research model was used in solving this problem. Furthermore, the object of the research was empowerment activities carried out during the 2015-2017 period. The research object includes 20 villages in Borobudur District, Magelang Regency. There was a lot of considerations to ensure the villages get a lot of physical assistance to decide the Borobudur Temple as a national priority super destination. Legal materials obtained through various studies, planning, budgeting, and reporting on the use of village funds were presented descriptively after carrying out a qualitative analysis.

3 Results and Discussion

3.1 Perception as an attitude shaper

The Reasoned Action Theory place attitudes in a central position over human actions [3]. Attitude are human actions determined by personal and group beliefs. It consists of three components: cognitive, affective, and conative [11]. The Cognitive components are in the form of perception and belief. The affective components refer to the emotional aspect, while the conative components refer to the tendency to act.

Based on this theory, perception of the village government towards the concept of community empowerment, affects the policies for planning, budgeting, and accountability of village funds. Furthermore, there is a relationship in the perception that development and empowerment are two dichotomous terms.

However, this perception implies that development is interpreted as physical or infrastructural. Meanwhile, non-physical development such as human resource development, places of worship, and spiritual activities are categorized as community empowerment.
3.2 Village fund users

Village funds are not only financial aids, but a form of recognition from the central government to the governing body of the village. The purpose is to increase its empowerment, using the principle of recognition and subsidiarity. These two principles have a crucial role because they are the original rules for the governance of villages in Indonesia.

Village funds allocated annually in the APBN, increases every year in this form, 3% of the 2015 APBN, 6% of the 2016 APBD while in the 2017 APBD, it increases to 10%. These funds are mainly used to finance village development, empowerment of communities, and government administration. The main aim is to ensure community empowerment and development. It could be used also for development of basic education, health, and infrastructural services. Furthermore, even in the context of poverty alleviation, village funds can also be used to meet the primary needs of food, clothing, and community housing [4].

The priority on how the funds is utilized, are regulated by the village ministerial and the regent's regulation every year. This regulatory principle should not limit local initiatives in designing developmental programs/activities, but also give a view on the essential uses of village funds. Therefore, the village still has room for creativity in making programs/activities according to their authority while analyzing priority needs and resources. (Village, 2016)

3.3 Community developments and empowerment

The government has the authority to decide the priorities for development and community empowerment. This is because the village funds directly come from them. Furthermore, the Regent describes the types of development and empowerment activities that have been financed with village funds. Separation of the field of development and community empowerment seems to put the two at different poles, even though they are still interrelated. In general, most empowerment activities are also developmental.

Development is an effort carried out consciously and in an organized way. However, it is continuously carried out by the government together with all levels of society or just by a community with government facilitation. This is done using selected technology, to meet all needs or solve problems that would be likely faced. Furthermore, this action would reveal the standard of living or welfare of all citizens of a nation that plan and carry out this developmental principle.

Furthermore, the society act as both the subject and an object of development. While the community is involved in developmental activities through participation. This is later linked to community empowerment mechanism. Development consists of both physical and non-physical. Physical development is felt or seen directly, for example, in the form of infrastructure, buildings, and public facilities [5]. Meanwhile, non-physical development is created through the encouragement of local community and is known to last for a long period. Examples include improving the economics of rural people and improving public health [6].

Community empowerment is a concept of economic development that summarizes the values of the society. It is used to build a new model of development that is people-centered, participatory, empowering, and sustainable [7]. Therefore, development within a community empowerment model is not only to meet the basic needs of the community, but also a means of finding alternatives to local economic growth.

Community empowerment is a developmental model rooted in the society to increase the dignity of some people that are still trapped in poverty and underdevelopment. When viewed from the point of state administration, community empowerment is not just an economic
concept. Furthermore, it implicitly implies enforcement of economic democracy (i.e. economic activities that take place the people, by the people, and for the people).

Empowerment is an effort that originates from the outside order. Therefore, this order develops independently, and it is capable of achieving a condition that allows it to build itself [8]. Empowerment is both a process and a goal. It involves a series of activities used to strengthen weak groups in the society. As a goal, empowerment refers to the circumstances or results that are achieved through social change. This includes a community that is empowered to meet their needs, both physically, economically, and socially [9].

Empowerment is a principle stated in Law Number 6 of 2014 concerning Villages. It is defined as an effort to develop self-reliance and community welfare. It increases the knowledge, attitudes, skills, behavior, abilities, awareness, and use of resources through policy-making programs and activities. Furthermore, it involves giving assistance to solve any problem including those of priority needs to the village community. Meanwhile, village development is defined as that effort put in place to improve the quality of life for the prosperity of the Village community (Law Number 6 of 2014). According to this concept, empowerment is one of the developmental strategies that provide more space for community involvement in the process.

3.4 Use of village funds for community empowerment in Borobudur district

2017 was the third year for allocation of the Village Fund policy by the Central Government to all villages in Indonesia, including the 20 villages in Borobudur District, Magelang Regency. The amounts of the fund received in these 20 villages was influenced by the size of the area, population, and other factors. The use of this funds generally follows government policy. However, the percentage in which it is used was different in each village. The procedure for using the funds for three years is shown in the Table 2.

<table>
<thead>
<tr>
<th>Year</th>
<th>Development</th>
<th>Empowerment</th>
<th>Coaching</th>
<th>Financing</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>96%</td>
<td>2%</td>
<td>2%</td>
<td>-</td>
</tr>
<tr>
<td>2016</td>
<td>84%</td>
<td>12%</td>
<td>2%</td>
<td>-</td>
</tr>
<tr>
<td>2017</td>
<td>85%</td>
<td>12%</td>
<td>3%</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: Consolidated Report on the Realization of Village Fund Absorption at Magelang Regency in 2017

The major use of village funds from 2015 to 2017 was mainly for physical development. Although the percentage used for development and empowerment has changed. The percentage for empowerment grew from year to year, namely 2% in 2015 to 12% in 2016 and 2017. Furthermore, data showing the results of the study were obtained from various community empowerment activities which were sourced by the village funds. Community empowerment activities can be grouped into 4 categories, namely: (1) human resource capacity building, (2) education, religion and nationality, (3) financial assistance/facilities and infrastructure, and (4) equity participation. The details of the four activities are as follows:

a. Capacity building for Human Resources
   - Training for Social Institutions / Youth Organization / Community Groups
   - Limnas Training
   - Training for Village Heads / Village Officials / BPD
   - Training to improve the economy of the community and MSMEs
- Disaster Preparedness / Disaster Management Training
- Information Technology Training Activities
- Waste Management Training
- Wisma Village Training
- Training to Increase the Capacity of Village Tourism Actors
- Youth Organization Empowerment Activities

b. Religious, Educational and National Activities
- NU Muslimat Studies
- Activities of Preaching
- Preservation of Religion, Customs, and Culture
- Kindergarten and early childhood activities
- Financial assistance and infrastructure
- Financial assistance for posyandu activities
- Financial assistance for PKK movers
- Providing stimulants for the rehabilitation of persons unfit for habitation
- Alert Village Operational Expenditures.

3.5 Equity participation for BUMDes [10]

In general, the concept of empowerment as a means of achieving independence and creating community welfare has not been realized due to the following.

a. The activity is single or discontinuous, therefore, its effectiveness is low.
b. Activities to increase human resources and religion have not been oriented towards empowerment. This activity is a non-physical development.
c. Financial aid given to community groups are operational assistance which could be consumed, and not capital.
d. Majority of BUMDes were formed after the enactment of the Village Law, so capital participation does not have implications for community empowerment.
e. There are no activities that encourage the community to be more empowered, such as capital assistance for cooperatives, equipment aids for MSMEs, and aids to community groups in need.

In general, this form of activity is non-physical because it is not oriented towards real empowerment. Analysis of various empowerment activities was carried out during the 2015-2017 periods. It proved the hypothesis about the perception of the village government towards the concept of empowerment to be very dichotomous to development. This means that empowerment is still interpreted as development.

4 Conclusion

The funds used in 20 villages in Borobudur District in 2015-2017 was prioritized for development and not for empowerment. Although the percentage allocation for empowerment increased significantly. The increase in the budget allocation was not matched by correct perceptions about development and empowerment. However, the implication was that development and empowerment are dichotomous or of different concepts entirely.

Various empowerment activities in 2015-2017 periods proved the misperceptions about empowerment. However, they are still non-physical. The philosophy of empowerment is a
strategy used to increase independence and welfare, but this concept is not well understood. Efforts to deconstruct this developmental concept are imperative. However, future use of village funds can contribute more to increasing community independence and welfare.

Acknowledgement

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References

[1] Presidential decree 60 of 2014 concerning Village Funds
[4] Elucidation of Article 19 paragraph (2) of Presidential decree 60 of 2014
[7] Chamber, Robert Village Development Starting from Behind, (Research institute, Economic and Social Training education
Voluntary Intellectual Capital Disclosure: A Theoretical Test of Proprietary Cost

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Abstract. Cost of equity could be minimalized by intellectual capital disclosure. Quality of information in this intellectual capital disclosure depends on the cost of proprietary, cost of information, and the relevance to get the information. This study was conducted to give empirical evidences about model analyze of intellectual capital to the cost based on theory of signaling and theory of proprietary cost. This study used design of quantitative research. Samples in this study were the enterprises that were registered in Indonesian Bursary Effect, except to the enterprises of financial industry in 2015 – 2019. Sampling extraction was performed by method of purposive sampling. Data analyzing used statistic of descriptive analyzes and regression of moderating. Test of hypothesis was conducted by analyzing technic of test of comparing coefficients across regressions. The results of data analysis of the research showed that increasing the disclosure of voluntary intellectual capital could decrease cost of equity. The low cost of proprietary could strengthen negative effects of the intellectual capital disclosure on cost of equity. The low cost of information could not strengthen negative effects of the intellectual capital disclosure on cost of equity. The high relevance of information could not strengthen negative effects of the intellectual capital disclosure on cost of equity.

Keywords: Voluntary disclosure, intellectual capital, cost of equity, cost of proprietary

1 Introduction

Disclosure becomes one of effective tools of management to deliver information to the external parties, including the investor [8]. In addition to the informations that have to be disclosed, there are other informations that need to be disclosed voluntarily. The voluntary disclosure could give more relevant description when it is happened the executive change in the enterprise or price decline of stock, so that the management still could control the stock price of enterprise. Intellectual capital could be an information that could be disclosure voluntarily and could increase the stock price. The investors tend to pay the higher stock in enterprise with more intellectual resources compared than enterprise with low intellectual resources [34].

Based on signaling theory, enterprise with good performance tends to give easier disclosure voluntarily [8]. Some researchers have conducted research related on cost of equity that were influenced by intellectual capital disclosure. The research that was conducted by [9][10][35][32][33][44][12] and [15] showed that the intellectual capital disclosure could give negative effects on cost of equity. It was caused by many samples of enterprise that largely disclosed
intellectual capital in the report and given the relevant information to the investor in considering the enterprise, so that the enterprises could gain benefits from getting lower cost of equity.

Nevertheless, [31] in their research have seen the voluntary disclosure in two aspects, the information disclosure that was oriented to the future and the information disclosure related to the enterprise history. Results of the research showed that there were negative effects of the information disclosure that was oriented to the future on cost of equity, whereas cost of disclosure of historical information had positive effects on cost of equity. The research that was conducted by [11] and [42] showed that the intellectual capital disclosure did not impact significantly on cost of equity.

The research of [39] have found the implication of proprietary cost and information relevance to the disclosure. Then, the research developed hypothesis of proprietary cost and saving cost of acquisition of private information in this disclosure. The result was consistent with the proprietary cost theory. The proprietary cost would decrease the disclosure of full information. The proprietary cost could help managers to minimize the probability of decreasing stock price because of the interception of information as consequence of bad news or to avoid the realization of proprietary cost.

The research related to proprietary cost by [47][39][25][36] and [2], still discussed proprietary cost comprehensively, not yet explained effect of high or low proprietary cost with strong effect to intellectual capital disclosure in cost of equity. This research used enterprise with proprietary cost, cost of information, and relevance of information in high category and enterprise with proprietary cost, cost of information, and relevance of information in low category. The use of two enterprises with high and low category has not been conducted previously, so that this study results could show the results of level of effects of proprietary cost, cost of information, and high or low relevance of information on cost of equity.

In general, this research was purposed to find empirical evidences about model analysis of intellectual capital disclosure on cost of equity, based on proprietary cost theory. The specific purpose of this research was to give empirical evidences about effect of intellectual capital disclosure on cost of equity. In addition, this research was also purposed to analyze negative effect of the intellectual capital disclosure on cost of equity that was moderated by level of proprietary cost, cost of information, and relevance of information.

In addition, signaling theory was considered to be unable to explain disclosure that could give positive effect and even did not influence on cost of equity. The limitation of signaling theory in explaining effects of disclosure on cost of equity could be explained by using proprietary cost theory. The proprietary cost theory explained that without cost related to disclosure, enterprise would get incentive to perform disclosure of information voluntarily [47].

Theoretic contribution in this research was capable to increase the reference in explaining the relevance between signaling theory with cost of equity, that was effect of intellectual capital disclosure on cost of equity. The practical contribution of this research was capable to increase reference and to be managerial consideration in making right decision and policy to surprises cost of equity through the intellectual capital disclosure. The policy contribution of this research was helping regulator and standard maker in making policy and regulation related to the disclosure of financial report.

1.1 Intellectual capital disclosure impacted negatively on cost of equity

Signaling theory suggested how an enterprise give signal to the user of financial report. This signal could be information of what was conducted by management to realize the owner desire [46]. Information of intellectual capital that could be disclosed was human equity [18].
It is convinced that the enterprise that could manage its intellectual resources could create additional values and competitive excellence by performing innovation, research and development that would influence the increase of financial performance of the enterprise. Second element in intellectual capital was disclosure of structural equity such as structure and process that was developed and applied to employees in order that they could be more productive, effective, and innovative [12]. The last element was relationship equity that was one of intellectual equities of relationship between enterprise and other parties [12].

The research related to intellectual capital disclosure has been conducted by [12] that found that there was significant and negative relationship between intellectual capital disclosure that was measured by two components (equity of human and structural) and cost of equity. The research result of [35] showed that the intellectual capital disclosure was proven to have negative effect on cost of equity. The research conducted by [10] also showed that the disclosure influenced negatively on cost of equity. Based on the description, the first hypothesis in this research is:

H1: Intellectual capital disclosure influences negatively on cost of equity.

Proprietary cost did not only give benefit for enterprise, but also impacted to the issued cost related to release of information [36]. Explained that proprietary cost could give negative effect to the voluntary disclosure that was conducted by management [25].

In addition, the intellectual capital disclosure based on the research conducted by [32], had negative effects on cost of equity. If it was related to the research result that was conducted by [36] about proprietary cost and voluntary disclosure, proprietary cost was strongly relevant and could limit the enterprise support to give information of segment to the market, it meant that the high proprietary cost could be considered for the enterprise to give intellectual capital disclosure voluntarily. Based on the argument, it could be made hypothesis such as following:

H2: Negative effect of intellectual capital disclosure on cost of equity in enterprise with lower proprietary cost was greater than enterprise with high proprietary cost.

The intellectual capital disclosure as private information was important for the enterprise, such as human resources and applied technology, so that it could become basic of investment decision, decreasing risks of estimation, getting appropriate stock price, and decreasing cost of equity [43]. Have explained that the issued cost was not only cost of purchased information, but also included cost of analysis, maintenance, and classification of information [14]. Therefore, the amount of the issued cost of information could give effect that was given by intellectual capital disclosure on cost of equity.

[45] said that the quality of disclosure related to the cost and benefit of information was similar in proprietary cost theory. The disclosure of qualified information also needed professional persons, because they could increase the value of annual report, where the annual report was used by investors as matter of consideration to invest. Although it was happened the increase of information cost because using professional persons in the disclosure, it could decrease the cost of equity. Based on the argument, it could make hypothesis of this research such as following:

H3: Negative effect of intellectual capital disclosure on cost of equity in enterprise with low cost of information is greater than enterprise with high cost of information.

The relevance of information was a multidimensional attribute that was strongly related to the given benefit of information to the user [17]. The attribute consisted of associative capacity between information and market value of enterprise, accurate time of information, and content
of information. The relevant information meant that the supplied or disclosure information was appropriate with the real enterprise. Disclosing relevant information could withdraw more stockholders and finally it could impact to stock value of the enterprise [40]. The relevant disclosure of information could help the investors in controlling the enterprise to the initial contract agreement [25]. When the supplied information was relevant, it would make possible to support the intellectual capital disclosure voluntarily to become greater, it meant that it could increase the trust of external parties about the performance of enterprise. Therefore, the intellectual capital disclosure could strongly press the cost of equity through the existence of high relevance of information.

H_0: Negative effect of intellectual capital disclosure on cost of equity in enterprise with high relevance is greater than enterprise with low relevance of information.

2 Method
2.1 Population, samples, and analysis

The sampling enterprise was conducted using method of purposive sampling, with the following sample criteria: 1) the enterprise was registered in Indonesian Bursary Effect, except to enterprise of financial and investment industry; 2) the enterprise that issued financial report and annual report completely during the period of 2015 – 2019; 3) the enterprise that did not experience delisting during the period of 2015 – 2019; 4) the enterprise that did not experience suspend by Indonesian Bursary Effect during the period of 2015 – 2019.

2.2 Data of research

The used data in this research was secondary data that was financial report and annual report. The data was derived from the site of www.idx.co.id and each enterprise sites. The data that was derived from financial report consisted of data related to account of cost of equity, proprietary cost, cost of information, and relevance of information, whereas from annual report was used to collect data related to the intellectual capital disclosure.

2.3 Model of empiric

This study has measured intellectual capital based on three elements: human equity, structural equity, and relationship equity. The three elements were analyzed become one variable of intellectual capital disclosure. This model of research suggested intellectual capital disclosure has influenced negatively the cost of equity by the existence of control from enterprise measure, leverage and profitability. In addition, through the existence of proprietary cost, cost of information, and relevance of information could strengthen negative effect the was produced by disclosure of intellectual on cost of equity. Based on the explanation, it could be made an regression model equation such as the followings:

\[
\text{COC}_it = a + b_1\text{ICD}_it + e_i
\]

\[
\text{COC}_it = a + b_1\text{ICD}_it + b_2\text{PC}_it + b_3\text{ICD*PC}_it + b_4\text{SIZE}_it + b_5\text{PROFIT}_it + b_6\text{LEV}_it + e_i
\]

\[
\text{COC}_it = a + b_1\text{ICD}_it + b_3\text{INC}_it + b_4\text{ICD*INC}_it + b_5\text{SIZE}_it + b_6\text{PROFIT}_it + b_7\text{LEV}_it + e_i
\]

\[
\text{COC}_it = a + b_1\text{ICD}_it + b_2\text{INR}_it + b_3\text{ICD*INR}_it + b_4\text{SIZE}_it + b_5\text{PROFIT}_it + b_6\text{LEV}_it + e_i
\]
Effect in Sub-Group Variable:
Proprietary Cost

\[
P_{\text{PC High}}: \quad \text{COC}_{it} = a_1 + b_1 \text{ICD}_{it} + e_{it}
\]
\[
P_{\text{PC Low}}: \quad \text{COC}_{it} = a_2 + b_2 \text{ICD}_{it} + e_{it}
\]

Cost of Information

\[
P_{\text{INC High}}: \quad \text{COC}_{it} = a_1 + b_1 \text{ICD}_{it} + e_{it}
\]
\[
P_{\text{INC Low}}: \quad \text{COC}_{it} = a_2 + b_2 \text{ICD}_{it} + e_{it}
\]

Relevance of Information

\[
P_{\text{INR High}}: \quad \text{COC}_{it} = a_1 + b_1 \text{ICD}_{it} + e_{it}
\]
\[
P_{\text{INR Low}}: \quad \text{COC}_{it} = a_2 + b_2 \text{ICD}_{it} + e_{it}
\]

2.4 Operational definition of research variables

The used independent variable in this research was intellectual capital disclosure, that was conducted on information related to capability of the employees that could be used to show the excellence of enterprise in sector of human resources. The intellectual capital disclosure was measured based on index of intellectual capital disclosure from [18] that consisted of 18 items, but the 10 items of them were included in Decision of Head of Supervisor Board of Capita Market and Financial Institution, Number: KEP-431/BL/2012 about Delivery of Annual Report of Emiten or Public Enterprise, so that the used index in intellectual capital disclosure of 8 items that showed voluntary disclosure, including the 3 items of internal equity (intellectual property, management philosophy, and information/networking systems), 3 items of external equity (brands, distribution channels, and licensing agreements), and 2 items of human equity (work related knowledge and entrepreneurial spirit).

This moderator variables were proprietary cost, cost of information, and relevance of information. Proprietary cost was the issued cost by enterprise as a consequence of the disclosure of private/internal information of enterprise, that was measured by ratio return on asset compared with return on asset of industry [39]. Cost of information was the issued cost of enterprise related to the given information by enterprise to other parties that was supplied in financial report [39], that was measured using investors who have >20% stock of enterprise. The relevance of information was suitability of supplied information in financial report with the real condition or situation. The relevance of information in this research was measured using materiality, that was valued ratio valued greater than the planning asset or duty to amount of asset in the end of fiscal year before disclosure [39].

The dependent variable in this research was cost of equity, that was issued cost of enterprise to finance fund sources from investor of equity. This cost was measured using method of ratio of price earning growth that could be accounted with the following equation [24]:

\[
\text{CoFE}_{it} = \frac{\text{eps}_{t+2} - \text{eps}_{t+1}}{\text{Pt}_t}
\]

Symbol of CoFE_{it} represented cost equity of the implied enterprise and was measured in fiscal year of t; symbol eps_{t+1} represented median analyst forecast of earnings for the next year; symbol of eps_{t+2} represented median analyst forecast of earnings for the next two years; and symbol of Pt represented stockprice per share in years of t.
The control variables in this research were size of enterprise leverage, profitability. The size was measured by the amount of enterprise assets transformed in form of natural logarithms [23]. Leverage was measured by comparing total debt with total assets. Profitability was measured by comparing profit after tax with total assets (return on investment) [24].

2.5 Data analysis

This research tested H1, H2, H3, and H4 using the equity of regression in formula (1). This research supported H1, if the equation of regression produced value of negative β that was significant statistically. Technic of data analysis of hypothesis test of H2, H3, and H4 used the equation of regression in formula (5), (6), and (7). This research supported H2, H3, and H4 if each equation of regression produced value of β that was significant statistically.

2.6 Robustness test

Based on the equation in effect in sub-group that was formed previously, it found four testing phases. First, variable of proprietary cost theory of was distributed in two groups: high and low, based on value of median from the derived data. However, test of effect in sub-group in this research has joined the two group, so that variable with high score get the value of 1 and other with low score get the value of 2. Second, result of regression analysis from high and low group then was used to account value of t-test to know the existence of effect of variable proprietary cost theory in the equation of this research. The used equation to analyze the value of t-test was such as the following [27]:

\[
\frac{\hat{\beta} - \beta_0}{\sqrt{\frac{SSE_1 + SSE_2}{df_1 + df_2} \left( \frac{(df_1)^2}{(df_1)^2 - SSE_1} + \frac{(df_2)^2}{(df_2)^2 - SSE_2} \right)}}
\]

Symbol of \(\hat{\beta}\) (1/2), t (1/2), df (1/2), and SSE(1/2) represented respectively the coefficient of regression of ICD on cost of equity, the derived value of t-test, value of degree of freedom, and Sum Square of Error.

The account result then was compared with value of t-table. If the value of t-test was greater than t-table, it mean that variable of significant proprietary cost theory would strengthen the negative effect of intellectual capital disclosure on cost of equity. Third, deciding criteria of hypothesis acceptance: 1) If coefficient of t-test > t-table, hypothesis was accepted; 2) If coefficient of t-test < t-table, it was rejected the hypothesis. Fourth, concluding the performed analysis results.

3 Results and Discussion

3.1 Hypothesis test

The first hypothesis tested effect of intellectual capital disclosure on cost of equity. Table 1 showed that value of t-test was -1.698 (> t-table = 1.648) with p-value of 0.090 (< α = 10%). The derived value of regression coefficient was negative (-0.117). That meant that the
hypothesis of intellectual capital disclosure influenced significantly on cost of equity was supported.

Table 1. Test result of first hypothesis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coef</th>
<th>SE</th>
<th>t-count</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constanta</td>
<td>0.300</td>
<td>0.084</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intellectual Capital Disclosure</td>
<td>-0.117</td>
<td>0.069</td>
<td>-1.698</td>
<td>0.090*</td>
</tr>
<tr>
<td>Size of Enterprise</td>
<td>-0.004</td>
<td>0.006</td>
<td>-0.576</td>
<td>0.565</td>
</tr>
<tr>
<td>Profitability</td>
<td>-0.001</td>
<td>0.001</td>
<td>-1.781</td>
<td>0.075*</td>
</tr>
<tr>
<td>Leverage</td>
<td>-0.032</td>
<td>0.046</td>
<td>-0.693</td>
<td>0.489</td>
</tr>
</tbody>
</table>

F-count = 2.679
Significance = 0.031**
Adj R² = 0.012

*** significant 1%; ** significant 5%; * significant 10%

The second test was conducted to evaluate the second hypothesis (H₂), that was negative effect of intellectual capital disclosure on cost of equity in low proprietary cost was greater than high proprietary cost. The analysis result could be seen in Table 2.

Table 2. Test result of second hypothesis

<table>
<thead>
<tr>
<th>Proprietary Cost in Sub-Group of Low Samples</th>
<th>Coefficient</th>
<th>SE</th>
<th>t-test</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constanta</td>
<td>0.253</td>
<td>0.155</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intellectual Capital Disclosure</td>
<td>-0.321</td>
<td>0.142</td>
<td>-2.253</td>
<td>0.025**</td>
</tr>
<tr>
<td>Size of Enterprise</td>
<td>0.015</td>
<td>0.014</td>
<td>1.124</td>
<td>0.262</td>
</tr>
<tr>
<td>Profitability</td>
<td>-0.002</td>
<td>0.001</td>
<td>-1.241</td>
<td>0.216</td>
</tr>
<tr>
<td>Leverage</td>
<td>-0.140</td>
<td>0.094</td>
<td>-1.492</td>
<td>0.137</td>
</tr>
</tbody>
</table>

F-test = 2.042
p-value = 0.089*
Adj R² = 0.016

<table>
<thead>
<tr>
<th>Proprietary Cost in Sub-Group of Low Samples</th>
<th>Koef</th>
<th>SE</th>
<th>t-test</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constanta</td>
<td>0.267</td>
<td>0.068</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intellectual Capital Disclosure</td>
<td>0.008</td>
<td>0.050</td>
<td>0.163</td>
<td>0.871</td>
</tr>
<tr>
<td>Size of Enterprise</td>
<td>-0.011</td>
<td>0.005</td>
<td>-2.361</td>
<td>0.019**</td>
</tr>
<tr>
<td>Profitability</td>
<td>0.000</td>
<td>0.000</td>
<td>0.101</td>
<td>0.919</td>
</tr>
<tr>
<td>Leverage</td>
<td>-0.005</td>
<td>0.035</td>
<td>-0.143</td>
<td>0.886</td>
</tr>
</tbody>
</table>

F-test = 1.573
p-value = 0.181
Adj R² = 0.008

*** significant 1%; ** significant 5%; * significant 10%

Based on the conducted analysis results, it could be continued with analysis of test of comparing coefficients across regressions to get value of t-test that showed the difference of low and high value of proprietary cost. The account result of t-test could be seen in Table 3.
Table 3. Result of test of comparing coefficients across regressions based on proprietary cost in sub-group of high and low samples

<table>
<thead>
<tr>
<th></th>
<th>Proprietary Cost</th>
<th>t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Coefficient of regression ($\beta_k$)</td>
<td>0.008</td>
<td>-0.321</td>
</tr>
<tr>
<td>t-test</td>
<td>0.163</td>
<td>-2.253</td>
</tr>
<tr>
<td>degree of freedom (df)</td>
<td>298</td>
<td>257</td>
</tr>
<tr>
<td>Sum Square of Error (SSE)</td>
<td>4.495</td>
<td>23.475</td>
</tr>
</tbody>
</table>

The analysis result showed the value of t-test (2.384) > t-table (1.969), so that it could be said that negative effect of intellectual capital disclosure on cost of equity in low proprietary cost was greater than high proprietary cost. It meant that the hypothesis that the negative effect of intellectual capital disclosure on cost of equity in low sub-group of samples of proprietary cost was stronger than high proprietary cost that was not proven to influence significantly on cost of equity was supported.

The third test was conducted to evaluate third hypothesis ($H_3$), that was negative effect of disclosure of intellectual capital on cost of equity in low information was greater than high cost of information. Cost of information showed the cost issued by enterprise related to the information given by enterprise to other parties that was supplied in financial report showed on Table 4.

Table 4. Test result of third hypothesis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>SE</th>
<th>t-test</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of Information in Sub-Group of Low Samples</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constanta</td>
<td>0.357</td>
<td>0.134</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intellectual Capital Disclosure</td>
<td>-0.191</td>
<td>0.110</td>
<td>-1.736</td>
<td>0.084*</td>
</tr>
<tr>
<td>Size of Enterprise</td>
<td>-0.002</td>
<td>0.011</td>
<td>-0.190</td>
<td>0.849</td>
</tr>
<tr>
<td>Profitability</td>
<td>-0.001</td>
<td>0.001</td>
<td>-1.078</td>
<td>0.282</td>
</tr>
<tr>
<td>Leverage</td>
<td>-0.068</td>
<td>0.077</td>
<td>-0.892</td>
<td>0.373</td>
</tr>
<tr>
<td>F-test = 1.949</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>p-value = 0.102</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adj R$^2$ = 0.012</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Cost of Information in Sub-Group of High Samples

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>SE</th>
<th>t-test</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constanta</td>
<td>0.194</td>
<td>0.096</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intellectual Capital Disclosure</td>
<td>-0.031</td>
<td>0.075</td>
<td>-0.420</td>
<td>0.675</td>
</tr>
<tr>
<td>Size of Enterprise</td>
<td>-0.002</td>
<td>0.007</td>
<td>-0.310</td>
<td>0.756</td>
</tr>
<tr>
<td>Profitability</td>
<td>-0.001</td>
<td>0.000</td>
<td>-1.768</td>
<td>0.078*</td>
</tr>
<tr>
<td>Leverage</td>
<td>-0.010</td>
<td>0.048</td>
<td>-0.216</td>
<td>0.829</td>
</tr>
<tr>
<td>F-test = 0.985</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>p-value = 0.416</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adj R$^2$ = 0.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*** significant 1%; ** significant 5%; * significant 10%

Based on analysis results it was known that intellectual capital disclosure in sub-group of low and high samples did not have significant effect in the cost of equity. If it was seen from the results, it could be known that cost of information could not strengthen the effect of the intellectual capital disclosure on cost of equity. It was strengthened by the analysis result of test
of comparing coefficients across regressions, that was cost of information could not strengthen the effect of intellectual capital disclosure on cost of equity.

The analysis results showed that the negative effect of intellectual capital disclosure on cost of equity in sub-group of samples of low cost of information was greater than in sub-group of samples of high cost of information was not supported. Result of fourth hypothesis showed on Table 5.

Table 5. Test result of fourth hypothesis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>SE</th>
<th>t-test</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relevance of Information in Sub-Group of Low Samples</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constanta</td>
<td>0.233</td>
<td>0.123</td>
<td></td>
<td>0.133</td>
</tr>
<tr>
<td>Intellectual Capital Disclosure</td>
<td>-0.171</td>
<td>0.113</td>
<td>-1.507</td>
<td>0.133</td>
</tr>
<tr>
<td>Size of Enterprise</td>
<td>0.005</td>
<td>0.010</td>
<td>0.545</td>
<td>0.586</td>
</tr>
<tr>
<td>Profitability</td>
<td>-0.001</td>
<td>0.001</td>
<td>-1.502</td>
<td>0.134</td>
</tr>
<tr>
<td>Leverage</td>
<td>-0.086</td>
<td>0.074</td>
<td>-1.162</td>
<td>0.246</td>
</tr>
<tr>
<td><strong>F-count</strong> = 1.551</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>p-value</strong> = 0.188</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adj <strong>R^2</strong> = 0.008</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relevance of Information in Sub-Group of High Samples</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constanta</td>
<td>0.379</td>
<td>0.118</td>
<td></td>
<td>0.382</td>
</tr>
<tr>
<td>Intellectual Capital Disclosure</td>
<td>-0.073</td>
<td>0.083</td>
<td>-0.876</td>
<td>0.382</td>
</tr>
<tr>
<td>Size of Enterprise</td>
<td>-0.013</td>
<td>0.009</td>
<td>-1.537</td>
<td>0.125</td>
</tr>
<tr>
<td>Profitability</td>
<td>-0.001</td>
<td>0.001</td>
<td>-0.953</td>
<td>0.341</td>
</tr>
<tr>
<td>Leverage</td>
<td>0.017</td>
<td>0.058</td>
<td>0.286</td>
<td>0.775</td>
</tr>
<tr>
<td><strong>F-test</strong> = 1.687</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>p-value</strong> = 0.153</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adj <strong>R^2</strong> = 0.009</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*** significant 1%; ** significant 5%; * significant 10%

Based on analysis result Table 5, it was known that the intellectual capital disclosure in sub-group of low and high samples did not have significant effect on cost of equity. If it was seen from the result, it could be known that the relevance of information could not strengthen the effect of intellectual capital disclosure on cost of equity. It was strengthened by analysis result of test of comparing coefficients across regressions that was conducted that the relevance of information could not strengthen the effect of the intellectual capital disclosure on cost of equity. The analysis result showed that hypothesis that the negative effect of the intellectual capital disclosure on cost of equity in sub-group of samples of high relevance of information was greater than low relevance of information was not supported.

3.2 Sensitivity analysis

The next analysis was analysis of dummy, that analyzed the kind of industry of sampled enterprises and the period of years that was used in research as variable of control. Based on Table 6, it was known that from some kinds of enterprise industry that became samples had significant value of smaller than 0.05. The kinds of industry were Basic Industry and Chemicals (I3) with significance of 0.036 (<0.05), Miscellaneous Industry (I4) with significance of 0.006 (<0.05), and Infrastructure, Utilities and Transportation (I7) with significance of 0.000 (<0.05). Whereas in the period of years, there was not significant period in cost of equity.
Table 6. Test Result of Dummy Based on Kind of Industry and Period of Years

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coef</th>
<th>SE</th>
<th>t-count</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0.289</td>
<td>0.091</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intellectual Capital Disclosure</td>
<td>-0.078</td>
<td>0.073</td>
<td>-1.063</td>
<td>0.288</td>
</tr>
<tr>
<td>Size of Enterprise</td>
<td>-0.007</td>
<td>0.007</td>
<td>-1.108</td>
<td>0.268</td>
</tr>
<tr>
<td>Profitability</td>
<td>-0.001</td>
<td>0.001</td>
<td>-1.265</td>
<td>0.207</td>
</tr>
<tr>
<td>Leverage</td>
<td>-0.055</td>
<td>0.046</td>
<td>-1.205</td>
<td>0.229</td>
</tr>
<tr>
<td>Agriculture (I1)</td>
<td>0.046</td>
<td>0.049</td>
<td>0.952</td>
<td>0.341</td>
</tr>
<tr>
<td>Mining (I2)</td>
<td>0.095</td>
<td>0.053</td>
<td>1.794</td>
<td>0.073*</td>
</tr>
<tr>
<td>Basic Industry and Chemicals (I3)</td>
<td>0.060</td>
<td>0.029</td>
<td>2.107</td>
<td>0.036**</td>
</tr>
<tr>
<td>Miscellaneous Industry (I4)</td>
<td>0.102</td>
<td>0.037</td>
<td>2.760</td>
<td>0.006***</td>
</tr>
<tr>
<td>Consumer Goods Industry (I5)</td>
<td>0.009</td>
<td>0.037</td>
<td>0.254</td>
<td>0.800</td>
</tr>
<tr>
<td>Property. Real Estate and Building Construction (I6)</td>
<td>0.019</td>
<td>0.027</td>
<td>0.692</td>
<td>0.489</td>
</tr>
<tr>
<td>Infrastructure, Utilities and Transportation (I7)</td>
<td>0.193</td>
<td>0.042</td>
<td>4.583</td>
<td>0.000***</td>
</tr>
</tbody>
</table>

Year of 2013 (T1) | 0.028 | 0.030 | 0.940   | 0.347   |
Year of 2014 (T2) | 0.024 | 0.030 | 0.806   | 0.421   |
Year of 2015 (T3) | -0.021 | 0.030 | -0.701  | 0.484   |
Year of 2016 (T4) | -0.010 | 0.030 | -0.347  | 0.729   |

F-count = 2.974  
Significanse = 0.000**  
Adj R² = 0.050

*** significant 1%; ** significant 5%; * significant 10%

Analysis of interaction was performed to know the factor from which proprietary cost (proprietary cost, cost of information, and relevance of information) that could strengthen the negative effect of the intellectual capital disclosure on cost of equity. The test result of interaction could be seen in Table 7, Table 8, and Table 9.

Table 7. Test Result of Interaction of Intellectual Capital Disclosure with Proprietary Cost

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coef</th>
<th>SE</th>
<th>t-count</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0.318</td>
<td>0.085</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intellectual Capital Disclosure</td>
<td>-0.159</td>
<td>0.076</td>
<td>-2.078</td>
<td>0.038</td>
</tr>
<tr>
<td>Size of Enterprise</td>
<td>-0.003</td>
<td>0.007</td>
<td>-0.382</td>
<td>0.702</td>
</tr>
<tr>
<td>Profitability</td>
<td>-0.001</td>
<td>0.001</td>
<td>-1.541</td>
<td>0.124</td>
</tr>
<tr>
<td>Leverage</td>
<td>-0.037</td>
<td>0.047</td>
<td>-0.790</td>
<td>0.430</td>
</tr>
<tr>
<td>Proprietary Cost</td>
<td>-0.018</td>
<td>0.014</td>
<td>-1.278</td>
<td>0.202</td>
</tr>
<tr>
<td>Interaction of ICD*Proprietary Cost</td>
<td>0.022</td>
<td>0.018</td>
<td>1.265</td>
<td>0.206</td>
</tr>
</tbody>
</table>

F hitung = 2.057  
p value = 0.057*  
Adj R² = 0.011

*** significant 1%; ** significant 5%; * significant 10%

Based on Table 7, it was known that from the value of significance that was derived from interaction between the intellectual capital disclosure (ICD) with proprietary cost was 0.206. The value was greater than 0.05, it meant that influencing not significantly. It showed that proprietary cost in this research was not good moderator variable, that meant that proprietary cost could not strengthen the negative effect of intellectual capital disclosure on cost of equity.
Table 8. Test Result of Interaction of Intellectual Capital Disclosure with Cost of Information

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>SE</th>
<th>t-count</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constanta</td>
<td>0.355</td>
<td>0.109</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intellectual Capital Disclosure</td>
<td>-0.192</td>
<td>0.114</td>
<td>-1.682</td>
<td>0.093</td>
</tr>
<tr>
<td>Size of Enterprise</td>
<td>-0.004</td>
<td>0.007</td>
<td>-0.599</td>
<td>0.549</td>
</tr>
<tr>
<td>Profitability</td>
<td>-0.001</td>
<td>0.001</td>
<td>-1.755</td>
<td>0.080</td>
</tr>
<tr>
<td>Leverage</td>
<td>-0.034</td>
<td>0.046</td>
<td>-0.723</td>
<td>0.470</td>
</tr>
<tr>
<td>Cost of Information</td>
<td>-0.129</td>
<td>0.181</td>
<td>-0.714</td>
<td>0.476</td>
</tr>
<tr>
<td>Interaction of ICD*Cost of Information</td>
<td>0.184</td>
<td>0.226</td>
<td>0.816</td>
<td>0.415</td>
</tr>
</tbody>
</table>

F-cound = 1.921  
p-value = 0.075*  
Adj R2 = 0.010

*** significant 1%; ** significant 5%; * significant 10%

Based on Table 8, it was known from value of significance that was derived from interaction of intellectual capital disclosure (ICD) with cost of information was 0.415. The value was higher than 0.05, it meant not influencing significantly. It showed that cost of information in this research was not good moderator variable, it meant cost of information could not strengthen the negative effect of intellectual capital disclosure on cost of equity.

Table 9. Test Result of Interaction of Intellectual Capital Disclosure with Relevance of Information

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>SE</th>
<th>t-count</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constanta</td>
<td>0.300</td>
<td>0.084</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intellectual Capital Disclosure</td>
<td>-0.119</td>
<td>0.069</td>
<td>-1.733</td>
<td>0.084</td>
</tr>
<tr>
<td>Size of Enterprise</td>
<td>-0.003</td>
<td>0.007</td>
<td>-0.521</td>
<td>0.602</td>
</tr>
<tr>
<td>Profitabilitas</td>
<td>-0.001</td>
<td>0.001</td>
<td>-1.794</td>
<td>0.073</td>
</tr>
<tr>
<td>Leverage</td>
<td>-0.035</td>
<td>0.046</td>
<td>-0.760</td>
<td>0.448</td>
</tr>
<tr>
<td>Interaction of ICD*Relevance of Information</td>
<td>-0.001</td>
<td>0.001</td>
<td>-0.733</td>
<td>0.464</td>
</tr>
</tbody>
</table>

F hitung = 2.249  
p value = 0.048**  
Adj R2 = 0.011

*** significant 1%; ** significant 5%; * significant 10%

Based on Table 9, it was known that from value of significance that derived from interaction of intellectual capital disclosure (ICD) with the relevance of information of 0.464. The value was greater than 0.05, it meant not influencing significantly. It showed that the relevance of information in this research was not good moderator variable, that meant this relevance of information could not strengthen the negative effect of intellectual capital disclosure on cost of equity.

3.3 Discussion

Cost of equity was measurement at the level of discount where the market could apply to the cash flow of the future that was expected by enterprise to decide the current stock price [33]. Cost of equity was used to make decision that could be made to enterprise interest. The high cost of equity could make the enterprise to increase the performance, because the fund could be used to enterprise operational or product development, used to cover the costing fund of equity
supply. [38] explained that financial disclosure was related negatively with cost of equity. The containing information in financial report could decrease the loaded cost of equity, because in the financial report contained important informations that could increase value of enterprise compared the competitor enterprises. [12] have tested empirically the effect of intellectual capital disclosure on cost of equity. Intellectual capital disclosure was important private information [1], so that it could be used as basic of investment decision, decreasing estimation risks, achieve the right stockprice, and decreasing cost of equity.

The test results empirically showed that the more complete capital disclosure could decrease cost of equity of enterprise. It was appropriate with the statement of [16], that the increase of public information disclosure could decrease cost of equity of enterprise. The test result in this research was not appropriate with the research conducted by [31], where the research found that the historical intellectual capital disclosure gave positive effect on cost of equity. The historical information made reference to information related to project or program conducted by enterprise and has been listed in the enterprise policy and strategy to compete with other enterprises, so that this information was need to be voluntary disclosure to increase the quality of disclosure in annual report of the enterprise.

Nevertheless, the empirical test result in this research was also in line with some previous results the research [9][10][35][44][12][29][32][33]. The research results have found that intellectual capital disclosure with the disclosure completeness could decrease cost of equity. The conducted intellectual capital disclosure could show that enterprise had capability to manage and develop the enterprise.

Proprietary cost theory [47] explained the importance of proprietary cost existence. The proprietary cost has become a cause of decreasing information quality that was disclosed by enterprise. The higher proprietary cost, the lower the accuracy of information that was disclosed [2]. It meant that proprietary cost influenced the relationship of information disclosure [39], because the amount of issued cost showed the amount of disclosure that was conducted by enterprise.

The empirical result in this research showed that low proprietary cost could make negative effect of intellectual capital disclosure on cost of equity to be greater. The research result was in line with the research conducted by [25], showed that proprietary cost could give negative effect to voluntary disclosure conducted by management, it meant that through low proprietary cost the enterprise could increase voluntary disclosure in financial report.

However, the empirical test result in this research has failed to prove that low cost of information could make negative effect given by intellectual capital disclosure on cost of equity to be greater. Many disclosed information impacted on great cost to disclosure the information. Nevertheless, the great cost was not directly impact on cost of equity. Quality of disclosure related to cost and benefit of information was similar to the quality in proprietary cost theory [45]. The qualified information disclosure needed the professional persons, whereas to get the professional persons needed additional cost. It could be possible if the enterprise did not consider information cost that was the responsibility in intellectual capital disclosure [25][30], but rather the impact caused by intellectual capital disclosure in the owned low cost of equity.

Nevertheless, this empirical test result has failed to prove the proprietary cost theory, that was in relevance of information that showed that high relevance of information could not make negative effect of intellectual capital disclosure on cost of equity to be greater. It could be caused of the relevance of an information in intellectual capital disclosure in some enterprises were not main factor to be considered in increasing value of enterprise, but more to information with value that could increase the value of enterprise. [13] has mentioned that asymmetry of information in supplied annual report could be caused by trading volume, stock price, and
volatility of stock return. The asymmetry of information could make problem, because of the different understanding of financial report [3]. The difference to understand the report could give effect in different assessment by external with internal parties to the supplied report, so the assessment to enterprise performance could also differ according to the understanding of the party that interpreted the financial report.

4 Conclusion

Based on the empirical test result, the first hypothesis (H1) explained that intellectual capital disclosure influenced negatively on cost of equity. The test result of second hypothesis (H2) showed that the low proprietary cost could make negative effect of intellectual capital disclosure on cost of equity to be greater compared than high proprietary cost. The test result of third hypothesis (H3) showed that both in sub-group of high and low samples could not strengthen the negative effect of intellectual capital disclosure on cost of equity that meant reject H3. The test result of fourth hypothesis (H4) showed that both in sub-group of high and low samples could not strengthen the negative effect of intellectual capital disclosure on cost of equity, then meant reject H4.

Based on the conclusion, the theoretical implication of this research strengthened the existing theory of signaling, that was the intellectual capital disclosure influenced negatively on cost of equity, that meant the more complete the intellectual capital disclosure could surprise the cost of equity. In addition, this study results also proven that proprietary cost theory, that was low proprietary cost, could strengthen negative effect given by intellectual capital disclosure on cost of equity, it meant that enterprise with low proprietary cost tended to disclose the intellectual capital more completely, and it could suppress cost of equity. Practical implication of this study could be used as matter of consideration for enterprise management to suppress cost of equity. This research result showed that increasing the intellectual capital disclosure voluntarily could decrease cost of equity. Nevertheless, management was also need to classify and consider which information that could increase the quality of financial report. The performed intellectual capital disclosure was certainly based on information that was assumed to be important and could give benefit for enterprise, such as the used system of information and the owned resources and make differ from other enterprises, so that it could decrease cost of equity, and analyzing the risks that could be experienced and deciding the follow-up as anticipation with the performed disclosure. In addition, the research results also showed that proprietary cost could strengthen the effect of intellectual capital disclosure on decreasing cost of equity. Therefore, management could suppress the proprietary cost in order to intellectual capital could be disclosed in financial report, so that it could impact on decreasing cost of equity.

This study has limitation in the period of analysis, that is limited to the number of enterprises. The enterprise samples in this research were consisted of multiple sectors of industry, such as manufacture, mining, agriculture, basic and chemical industry, multiple industries, industry of consumption goods, property and infrastructure, so that it is possible to experience bias from the derived results. Therefore, this research could not see the role of signaling theory and proprietary cost theory in effects of intellectual capital disclosure for each sector of industry.
References


The Role of CSR and Partnership Strategy in Improving Loyalty of PT Telkom Foster Partners in Indonesia

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Universitas Sangga Buana YPKP, Bandung, Indonesia²

Abstract. This study aims to look into the impact of CSR and partnership strategy on PT Telkom promote partner loyalty. The quantitative research approach employed is causality research, which will be based on the study objectives. Small and Medium Enterprises (UKM) that have received PT's Corporate Social Responsibility (CSR) program are the unit of analysis. Indonesian telecommunications company Telkom. Meanwhile, the owners and managers of the UKM company are the units of observation. In Indonesia, the population is made up entirely of SMEs whom PT Telkom helps. Therefore, SMEs that PT has directed are the prerequisites to be used as example units. Telkom has a two-year minimum contract. A total of 200 SMEs were randomly selected and distributed over seven regions, with proportional allocation based on the population of each region (Simple Random Sampling). Using Structural Equation Modeling, this analysis will address the research objectives (SEM). The findings of this study show that CSR and partnership strategy impact PT Telkom cultivating partners' loyalty. The partnership strategy more dominantly forms partner loyalty than CSR. Based on this result, it is recommended to manage PT Telkom, who manages the partnership program to develop a partnership strategy: trust, independence, agreement, commitment, and coordination. Besides, it is also necessary to develop CSR in development, utilization, distribution, and impact.

Keywords: CSR, partnership strategy, partner loyalty

1 Introduction

Small business is one of the businesses that are starting to be a great interest to people in Indonesia. Small business products vary widely, ranging from handicrafts, food, beverages, fashions, beauty tools, and many others. Every year the number of these business actors is increasing and scattered in various parts of the country. Small businesses also contribute to economic growth in Indonesia, with a value of up to 60%. In addition, this small business sector has a major contribution to the circulation of money in society because the amount is quite large, namely IDR 55.2 million.

PT Telkom Indonesia is concerned about and committed to improving the community's quality of life, both economically and socially, by using monies from the company's profit share to enhance the economic and social conditions of the community surrounding the company's active region.
The Partnership Fund of PT Telkom to Foster Partners from 2001 to 2016 reached IDR3,073,728,342,000.00. These funds are issued through CSR programs and partnership funds. The targets are businesses as Foster Partners, totaling 127,796 SMEs throughout Indonesia. The biggest partnership fund is channeled in the trade sector followed by the service and industry sector. This shows that most of PT Telkom's partnership funds are channeled to businesses in these sectors.

It is vital to have partner loyalty to use PT Telkom Indonesia's products to reach PT Telkom's promoted program. PT Telkom is Indonesia's largest telecommunications firm. Telkom has had a huge subscriber base in the past, which was initially dominated by PSTN services. Telkom's business must change in tandem with technological advancements in order to maintain its position. One service is targeted exclusively to the small company sector, which has a sizable population. Telecommunication infrastructure that is sufficiently established and suitable allows PT Telkom to offer its products and services to this potentially lucrative market. Because of technological advancements, small firms must keep up with business development trends such as e-commerce, which makes transactions more convenient regardless of time or location.

However, data from PT Telkom (2017) shows that the growth of the number of SMEs of PT Telkom fostered partners in the 2012-2016 period has fluctuated. In 2012, there were 9,346 SMEs assisted, decreased to 3,975 in 2013. Then increased again to 12,163 SMEs in 2014. Then decreased to 11,981 in 2015, and 10,956 in 2016.

In addition, in the 2012-2016 period there was also a fluctuation in the total amount of PT Telkom funds channeled to 8 sectors, namely industry, trade, agriculture, livestock, plantations, fisheries, services. The total fund channeled by PT Telkom during this period for the 8 sectors amounted to IDR 1,560,365,000,000.00. However, the numbers have fluctuated. In 2012, disbursed amounting to IDR 343,872 million, decreased to IDR 118,190 million in 2013. Increased to IDR 396,423 million in 2014, IDR 340,958 million in 2015, and to IDR 360,922 million in 2016.

The conditions above indicate the problem of partner loyalty that is not yet high. Meanwhile, loyalty is an aspect that will add to the company's trademark value as a securitization asset [1]. This condition is assumed to be linked to PT Telkom's execution of a partnership strategy. The notion of partnership refers to an endeavor to collaborate with stakeholders, encompassing both vertical and horizontal partnerships, such as those with suppliers and customers and [2]. Meanwhile, the results of Telkom's survey relating to the PT Telkom partnership program (2017) show that the level of effectiveness of the Partnership Program is 69.30. Thus, the Partnership Program implemented by Telkom has not been effective enough to improve the performance of Foster Partners because it has an index below 75. The National Partnership Program Effectiveness Index in 2017 has decreased compared to 2016, which was 76.01.

There are other aspects that are thought to be related to the above phenomena, namely the implementation of CSR. CSR is a framework that involves an ongoing evaluation of corporate influence and relationships with stakeholders and the environment, as well as identifying and responding to developing strategic opportunities and challenges while advancing company goals [3].

In implementing the CSR program, PT Telkom refers to 3 pillars, namely the Economic Sector, the Social Sector, and the Environmental Sector. The target of economic activities is to prioritize adding value to stakeholders (customers, suppliers, shareholders, government, employees and their families, communities, partners), as well as supporting the improvement of the economy of creative and productive small business communities. Meanwhile, according to
PT TELKOM's PKBL Opinion Survey Report and CSR Index, 2017, it was found that the national TELKOM Partnership Program CSR Index in 2017 decreased compared to 2016. Based on the research background, this study aims to examine the effect of CSR and partnership strategy on the loyalty of small business partners under the guidance of PT Telkom throughout Indonesia.

2 Method

2.1 Corporate social responsibility (CSR)

CSR is an alignment of company activities with social values that integrate the interests of those who are influenced by company activities according to company policies and actions [4]. CSR aims to make the company’s activities and culture sustainable in three aspects, namely: Economic aspects, social aspects, and Environmental and Ecological aspects [5].

CSR is a framework that involves an ongoing evaluation of the company’s influence and relationships with stakeholders and the environment, as well as identifying and responding to develops strategic opportunities and challenges while advancing company goals [3]. CSR is a situation where companies integrate social, economic and environmental concerns in their business operations and in their interactions with their stakeholders on a voluntary basis [6].

The authors have the same thoughts in defining CSR, such as Herrera [3] and Cegarra-Navarro et al. [6] have similarities in the dimensions of relationships with stakeholders and the environment. [7], [8], [6], and [4] have similarities on social concerns. So that CSR is a situation where companies integrate social concerns ([6], [7], [8]); relationships with stakeholders ([3], [6]), and the relationship with the economy and the environment ([3], [6]).

Based on the study of the various dimensions of CSR above, where CSR is related to various patterns of relationships with stakeholders, social, ecological, environmental, and sustainable development, hence the dimensions of CSR in this study consist of distribution, utilization, return and impact of assistance.

2.2 Partnership strategy

Customer satisfaction, trust, and positive word of mouth are all positively influenced by social issues. Furthermore, the length of a customer-company connection buffers the impact of societal issues on customer satisfaction and trust [9]. As a result of this research, it is clear that customer and social interactions have an impact on consumer trust and happiness, [10] explained, on the other side, that collaborating parties employ trust as a foundation and a paradigm of interdependent assistance, referred to as "Partnerships."

The measurement and assessment of the actual achievement of partner management based on the partnership's programs and objectives is referred to as partnership performance, [11] define the components of the relationship in terms of measurement, which include: Interaction with partners; when firms collaborate to obtain access to resources and lessen environmental risk. Partner commitment is defined as the willingness of both parties to work together to manage the relationship, construct a stable connection, and maintain partnerships at a low cost and build trust in the relationship's stability. Partner coordination or efforts to harmonize channel members' operations within the organization; and Partner trust, or one party's willingness to rely on the other.
Based on a study of the various dimensions of the partnership, which includes many aspects such as the parties involved in the partnership and their attitudes or characteristics, the dimensions of partnership strategy in this study are: dealing, commitment, coordination, trust, and independence.

2.3 Partner loyalty

According to Griffin [12], customer loyalty is defined as non-random purchases expressed from time to time by several decision-making units, and loyal customers will exhibit purchasing behavior, which is defined as non-random purchases expressed from time to time by several decision-making units. Repeat purchases, purchases across product lines, referrals, and immunity are all characteristics of loyal customers.

Loyalty shows customer repurchase behavior [12-14], for a product or service and immune from other companies' products [12], and shows customers' willingness to recommend products to others [12]. Meanwhile, [15] suggest marketing activities to increase customer loyalty.

The dimensions of repeat purchase measure customer loyalty in this study, defend the company, close to competitive product or service, and recommend the company product, based on a comparison of the dimensions of customer loyalty and according to the research analysis unit.

2.4 Hypothesis development

Previous research has shown that CSR has a positive effect on customer loyalty [16]. Customer identification with the company, the emotions it generates, and satisfaction are all positively influenced by CSR. Customer happiness determines loyalty behavior, and identification influences the emotions elicited by service performance [17]. Therefore, it can be said that CSR affects loyalty. Based on those findings of previous research, the following hypothesis is formulated:

H1: CSR and partnership strategy affect partner loyalty

Lian and Yoong [18] in relationship marketing, customer pleasure, trust, control mutuality, and communication are examined as relationship quality and client loyalty factors. Customer loyalty was found to be highly influenced by the quality of the relationship. Based on those findings of previous research, the following hypothesis is formulated:

H2: partnership strategy affects partner loyalty

2.5 Research methods

Based on the research objective, the quantitative research method that will be used is causality research. “Causality research is used to obtain evidence of caused-and effect (causal) relationship” [19]. The observation was conducted in the time horizon that is cross section / one shot, in year 2020. "Unit of analysis refers to the aggregation of the data collected during the subsequent data analysis stage" [20]. In this study, the unit of analysis is Small and Medium Enterprises (SMEs) that have participated in PT's Corporate Social Responsibility (CSR) program. Indonesian telecommunications company Telkom. The owners and managers of SMEs are the observational unit.

The population of this study is comprised of all PT Telkom-built Small and Medium Businesses (SME) in Indonesia. SMEs that have become the guidance of PT are the sample unit in terms of SMEs. Telkom's minimum commitment is 2 (two) years, with the expectation that
the program will have a major impact on customer loyalty to Telkom Indonesia's PT products.

Cluster Random Sampling (CRS) is a technique for determining the sample location that involves the following steps:

- Creating a sampling frame, which includes a list of SME Partners Assistance PT Telkom Indonesia, which includes as much as seven regional offices across Indonesia.
- Choosing Witel Partnership SME from Region I to Regional VII to become Bidder Partners for Telkom Indonesia.
- Choosing an existing Partner in Witel-witel to serve as a test location.

According to [21], the minimum sample size should be between 100 and 150 participants. According to [22], a sample size of 100-200 observations is a sufficient minimum limit in most cases. Based on that opinion, a reference to the minimum sample requirements will be applied, and a sample of up to 200 SMEs will be taken. The sample will be distributed to seven regional locations at random, with proportional distribution depending on population in each region (Simple Random Sampling).

Using Structural Equation Modeling, this analysis will address the research objectives (SEM). SEM is used to assess the causal link model between the latent variables and the objectives, methodology, and research model (unobservable variable). SEM (Structural Equation Modeling) is a statistical technique that may directly analyze patterns of association between latent constructs and their indicators, latent constructs and each other, and measurement error. SEM enables for direct comparisons of dependent and independent variables [23].

3 Results

3.1 Goodness of fit

Statistically evaluation of the overall research model for assessing if a theory-based model fits empirical data. Structural Equation Model (SEM) as a statistical test can explain the goodness of a model with several index criteria to assess the suitability of the model showed on Table 1.

<table>
<thead>
<tr>
<th>No.</th>
<th>Degree of Fit</th>
<th>Value</th>
<th>Acceptable level</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Chi Square</td>
<td>364.75</td>
<td>p-value &gt; 0.05</td>
<td>Close Fit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P-value = 0.82549</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Goodness of Fit Index (GFI)</td>
<td>0.89</td>
<td>&gt;0.8</td>
<td>Close fit</td>
</tr>
<tr>
<td>3</td>
<td>Adjusted Goodness of Fit Index (AGFI)</td>
<td>0.87</td>
<td>&gt;0.8</td>
<td>Close fit</td>
</tr>
<tr>
<td>4</td>
<td>Root Mean Square Error of Approximation (RMSEA)</td>
<td>0.000</td>
<td>RMSEA≤ 0.08</td>
<td>Close fit</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(good fit)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>RMSEA&lt; 0.05</td>
<td>Close fit</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(close-fit)</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Parsimony Goodness of Fit Index (PGFI)</td>
<td>0.85</td>
<td>&gt;0.8</td>
<td>Close fit</td>
</tr>
</tbody>
</table>

Table 1, Chi-Square value with 364.75, and p-value = 0.82549 > 0.05. According to the acceptable level, the suitability of this research model is fit [24]. The RMSEA is 0.000 less than 0.05. Besides that, Goodness of Fit Index (GFI) = 0.89 and Adjusted Goodness of Fit Index (AGFI) = 0.87 > 0.80. In conclusion, for all of values, the research model above is fit.
3.2 Structural model

Therefore, the structural model framework in this study is as follows:

\[
\text{LOYALTY} = 0.23*\text{CSR} + 0.54*\text{Partnership} + \zeta
\]  

(1)

The following is the complete path diagram model of the research model in Figure 1.

3.3 Measurement model

The theory is represented by the measurement model, which specifies measurable variables to represent that theory. Then testing the measurement model to indicated indicators and dimensions of each variable are valid and reliable. The loading factor of the measurement model is $>0.50$, and the $t$ value of the loading factor is higher than the $t$-table at a significance of 5%.
according to [25] dimensions and indicators are valid in measuring latent variables. To determine the amount of reliability of indicators and dimensions in assessing research variables, Composite Reliability and Alpha Cronbach are used. When the Cronbach's Alpha value is better than 0.70 [26], the dimensions and indicators are considered reliable for measuring study variables. Loading factor of research variable showed on Table 2.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Dimension</th>
<th>Indicator</th>
<th>( \lambda )</th>
<th>( t )-value</th>
<th>Composite Reliability</th>
<th>Average Variance Extracted</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSR</td>
<td>Distribution</td>
<td>CSR1</td>
<td>0.77</td>
<td>8.65</td>
<td>0.93</td>
<td>0.64</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CSR2</td>
<td>0.79</td>
<td>8.92</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Utilization</td>
<td>CSR3</td>
<td>0.85</td>
<td>10.56</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>CSR4</td>
<td>0.78</td>
<td>10.22</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Development</td>
<td>CSR5</td>
<td>0.77</td>
<td>9.44</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>CSR6</td>
<td>0.81</td>
<td>9.69</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Impact</td>
<td>CSR7</td>
<td>0.77</td>
<td>8.65</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>CSR8</td>
<td>0.81</td>
<td>9.14</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dealing</td>
<td>Partner1</td>
<td>0.87</td>
<td>10.71</td>
<td>0.94</td>
<td>0.63</td>
</tr>
<tr>
<td></td>
<td>Commitment</td>
<td>Partner2</td>
<td>0.86</td>
<td>11.95</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Partner3</td>
<td>0.85</td>
<td>10.97</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Partner4</td>
<td>0.81</td>
<td>11.44</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Coordination</td>
<td>Partner5</td>
<td>0.87</td>
<td>11.45</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Partner6</td>
<td>0.79</td>
<td>11.42</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Trust</td>
<td>1</td>
<td>10.27</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Independence</td>
<td>Partner7</td>
<td>0.68</td>
<td>10.12</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Partner8</td>
<td>0.67</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loyalty</td>
<td>Repeat Purchase</td>
<td>Loy1</td>
<td>0.93</td>
<td>11.42</td>
<td>0.96</td>
<td>0.66</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Loy2</td>
<td>0.79</td>
<td>12.35</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Loy3</td>
<td>0.82</td>
<td>12.91</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Protect</td>
<td>Loy4</td>
<td>0.89</td>
<td>10.32</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Loy5</td>
<td>0.76</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Loy6</td>
<td>0.86</td>
<td>12.65</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Loy7</td>
<td>0.81</td>
<td>11.91</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Closed</td>
<td>Loy8</td>
<td>0.96</td>
<td>12.05</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Loy9</td>
<td>0.82</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Loy10</td>
<td>0.77</td>
<td>12.48</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Loy11</td>
<td>0.81</td>
<td>13.26</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Recommendation</td>
<td>Loy12</td>
<td>0.82</td>
<td>13.51</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Loy13</td>
<td>0.95</td>
<td>11.79</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 2 describes the analysis of the measurement model of the CSR, partnership and loyalty variables by dimensions and indicators. These results of indicator is valid in measuring its constructs, where the loading factor > 0.70 and the t value is greater than the t table value (1.96).

3.4. Hypothesis testing

The following Table 3 shows the results of the hypothesis testing of this study.

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>$\gamma$</th>
<th>SE($\gamma$)</th>
<th>t-value</th>
<th>$R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 CSR $\rightarrow$ Loyalty</td>
<td>0.23*</td>
<td>0.084</td>
<td>2.73</td>
<td>0.12</td>
</tr>
<tr>
<td>2 Partnership Strategy $\rightarrow$ Loyalty</td>
<td>0.54*</td>
<td>0.093</td>
<td>5.79</td>
<td>0.36</td>
</tr>
</tbody>
</table>

*sig. at 0.05 (t-table = 1.96)

- CSR and partnership strategy have positive and significant effect on Loyalty with $R^2 = 0.48$
- Partially, CSR has positive and significant on Loyalty with $R^2 = 0.12$
- Partially, Partnership strategy has a positive and significant effect on Loyalty with dominant impact ($R^2 = 0.36$)

Based on the hypothesis testing, the research model can be shown as follows Figure 2:

Fig. 2. Research Finding
4. Discussion

The results of this study support the hypothesis that CSR and the partnership strategy affect the loyalty of PT Telkom foster partners. Partner loyalty is more dominantly formed by the partnership strategy than by CSR. Trust and independence are aspects of partnership strategy that has a dominant influence with a coefficient value of 1.00, followed by dealing (0.87), and then commitment (0.85) and coordination (0.85). Meanwhile, related to CSR, development (0.85) has a more dominant effect, followed by utilization (0.84), distribution (0.77) and impact (0.77).

Trust between the parties in a cooperative relationship makes each of them fulfills its obligations towards the other party. The trust given by Telkom is used by the fostered partners to optimize their business so that they are able to fulfill their predetermined obligations. Independence shows the implementation of cooperation to gain access to resources. This has an impact on the smooth implementation of the foster partner's business activities which in turn has an impact on the achievement of the targets of the fostered partners so as to increase partner loyalty.

The cooperation agreement is carried out in accordance with the partnership contract. The implementation of partnerships supported by the clarity of partnership contracts plays a role in increasing partner loyalty. Commitment shows the willingness of the parties working together to manage the relationship and willingness at low cost. Both things contribute to increase loyalty. Coordination shows efforts to harmonize activities of members within the company and efforts to harmonize activities between company parties. Alignment guarantees the implementation of the business activities of the fostered partners according to what has been determined in an effort to achieve the goals so that the partners are able to fulfill their obligations to Telkom and the impact is increased partner loyalty. After joining Telkom, the fostered partners received a lot of benefits, thus increasing loyalty to Telkom. All fostered partners strongly defend Telkom for profit, so the partnership strategy has an influence on partner loyalty. The results of this hypothesis testing are in accordance with the finding of [18] that customer loyalty is significantly influenced by the quality of the partnership.

In terms of CSR, one of the problems faced by PT. Telkom is the inaccurate target of revolving fund distribution so that it can cause bad credit at the loan repayment stage. Utilization shows the level of compatibility between the use of working capital and investment capital. The formation of partner loyalty is also supported by the extent to which CSR funds are used, namely the level of suitability of the use of working capital and investment capital.

Distribution and impact have the same influence in forming partner loyalty. Distribution is measured by the timeliness of the channel and the suitability of the channel values. The impact is measured by the increased productivity and skills. The results of hypothesis testing show that time distribution and in accordance with the value of the channel, as well as the increased productivity and behavioral skills of small businesses make an equal contribution in forming partner loyalty.

The results of hypothesis testing, which indicate the influence of CSR on loyalty, provide support for the research results; [16] that CSR positively has a greater impact on customer loyalty, as well as [17] Customer identification with the company, the emotions generated by the company, and satisfaction are all positively affected by CSR. Customer happiness determines loyalty behavior, and identification influences the emotions elicited by service performance.
Based on these results, it is hoped that this research will benefit the management of PT Telkom in an effort to increase the loyalty of small business partners under the guidance of PT Telkom through the development of a partnership strategy and CSR.

5 Conclusion

The results of this study support the hypothesis that CSR and partnership strategy affect the loyalty of PT Telkom foster partners. Partner loyalty is more dominantly formed by partnership strategy than by CSR. The results showed that partnership strategy has a more dominant effect in increasing partner loyalty, so that the management of PT Telkom is advised to make improvements in terms of: trust, independence, agreement, commitment, and coordination. The results also show that CSR has an effect on increasing partner loyalty, so that PT Telkom management is advised to prioritize improvements in terms of: development, utilization, distribution, and impact.

References


Analysis of Panic Buying Behavior from Fear of Covid-19 and Citizen Trust

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Abstract. Early in 2020 China, Japan, and dozens of other countries were busy with a terrible and deadly disease outbreak, Novel Coronavirus Diseases (COVID-19). Then, the spread of this virus is very concerned about it because of its very rapid spread through air media or fluids from the respiratory tract. This phenomenon has a significant impact on life globally. Anxiety, panic, and public fear of the virus create a new lifestyle that must be controlled by oneself. The health, economic, educational, political, social, and psychological impacts are felt by all people in all countries. The obvious psychological impact is panic buying, self-control, trust in the government, and fear of COVID19. This study aims to determine the role of fear of COVID19 and citizen trust to panic buying behavior. The research conducted using quantitative correlation methods, involving research respondents with a minimum sample of 536 people. The character of the research response was at least 18 years old and affected by Covid19. Data processing using Multiple regression with the help of SPSS software. The research result shows that panic buying build from fear of COVID and citizen trust. Both fears of covid-17 and citizen trust have a simultaneous role in panic buying. However, in the partial role only fear of covid which have a role to panic buying, while citizen trust has not role to panic buying.

Keywords: Citizen trust, fear of covid-19, panic buying

1 Introduction

According to the World Health Organization (WHO), Corona Virus is a virus that attacks the respiratory system which is often called COVID-19. As of October 30th, 2020 the number of confirmed cases of patients exposed to COVID-19 has reached 44,592,789. A total of 1,175,553 confirmed patients died from 219 countries or regions affected by COVID-19 [40]. According to the distribution map data issued by the Ministry of Health of the Republic of Indonesia (Kemenkes RI), on October 30th, 2020 there were 406,945 confirmed cases, and 13,782 patients were declared dead in 34 provinces in Indonesia.

The COVID-19 pandemic experienced by the world community has an impact on the instability of life. Indonesia as a country that is affected by aspects such as economy, politics, education, social, sports, and religion as well as tourism is also affected. The impact is quite large on the economy, for example, a pandemic can trigger serious disruption of global food supplies. According to Shou, Xiong & Shen [33], supply disruptions can cause by various reasons, such as natural disasters, labor strikes, terrorist attacks, and changes in government regulations, etc. The reporting of the first case in Indonesia appeared, many people invaded various kinds of staple goods. The number of supplies of masks and hand sanitizers in several
shops and pharmacies is getting scarce [1]. The Indonesian Retail Entrepreneurs Association (Aprindo) stated that there had been a surge in visitors of around 10 percent to 15 percent after the first COVID-19 news in Indonesia so that the stock of goods in several shops invaded by the public [1]. Lidyana [26] wrote that there was a surge in mask prices of up to 1400% due to the scarcity of goods with a high number of requests. All supermarkets in the Jakarta area were often attacked by residents, which resulted in almost all food products sold out. This disruption of supply occurs due to panic buying behavior in which many consumers buy products in large quantities to avoid possible shortages in the future in the face of crises such as COVID-19. According to Arafat, Kar, Marthoenis, Sharma, Apu, & Kabir [3], the perception of scarcity (the effect of perceived scarcity) is closely related to the increase in panic buying behavior and hoarding behavior if scarcity occurs in urgent needs. This scarcity also creates feelings of insecurity and activates the desired mechanism to collect goods [10].

According to Lins and Aquino [27], Panic buying occurs when there are negative feelings such as fear, panic, and uncertain feelings that underlie a person is acting to buy goods excessively. This occurs in a crisis or disturbing event. Panic buying has also been associated with feelings of insecurity that are felt in the instability of certain situations [20]. COVID-19 leaves people feeling uncertain, people unsure when disasters will end, and what can control in the face of a pandemic, giving rise to a desire to control at least something that is needed during a crisis namely, by saving necessities by buying as much as possible [3]. Yuen, Wang, Ma, and Li [41] explain several psychological factors that influence panic buying, including perception, fear of the unknown, coping behavior or coping strategies, and social psychological factors. The perceptions referred to in these factors are divided into two, namely perceptions of threats and perceptions of scarcity. Besides, social-psychological factors are also divided into two, namely, social influence and social trust.

Fear is a form of emotion that is formed because of danger or threatening situations. The response to fear in individuals is in the form of fight-or-flight where the individual behaves in the direction of running away or fighting the threatening situation [30]. Fear is also closely related to anxiety [9]. Besides, fear of individuals is not only motivated by individual traits but also influenced by the existence of certain social and cultural relationships [14]. Several things trigger fear, including objects or situations, imagined events, dangers to the real environment, and things that are not certain. Situation uncertainty and lack of information cause fear in addition to other psychological and physical problems in some populations, especially people who are constantly involved in a place or event, for example in a place of war, a place of conflict or disaster, terrorism, and others [13].

This fear also occurred during the pandemic COVID-19 around the world, especially in Indonesia. COVID-19 has entered life and changed the fabric of society, and reversed human domination on earth. The fact is that COVID-19 is a very microscopic virus, and people don't know how to control it. COVID-19 is also difficult to predict, so people become afraid of something they don't know, namely COVID-19 (Freeland, 2020). Fear is one of the aspects that emerged during the COVID-19 pandemic. Fear of COVID-19 is an unpleasant emotion felt by an individual due to a threat or unusual event, for example, an epidemic of a disease outbreak. There is a fear of being infected, losing a job, losing loved ones, and various other sides of life when COVID-19 occurs around the world [31]. Research in Canada reports that a total of 1354 adults are worried and afraid of COVID-19 (Angus Reid Institute, 2020). Besides that, Germany also conveyed the same thing. That 1242 individuals feel very afraid of COVID-19. Another study from the United States shows that people are afraid of the spread of COVID-19 rather than the influenza virus that occurs seasonally [4]. Fear of COVID-19 is a fear of health conditions. Fear of specific health conditions has also occurred in several diseases including
fear of breast cancer [7], Alzheimer's disease [12], dementia [23], and hypoglycemia [2]. When they have a specific fear, for example against COVID-19, the individual has a certain response. Changes regarding healthy living behavior in society make it better to understand that humans are susceptible to disease [15].

Sim, Chua, Vieta & Fernandez [34] explain that panic buying occurs because of a conflict that lies behind the desire to survive with the uncertainty of the duration of the pandemic. The uncertainty of the situation eventually leads the individual to be afraid and to relieve this feeling, the individual buys goods in unusual quantities. Besides, panic buying calls a coping response to fear. Harper, Satchell, Fido, & Latzman [18] also convey that fear of COVID-19 is perceived by society as a threat and motivates individuals to adopt preventive behaviors that facilitate their lives. Subsequent research on cases of the SARS virus in 2003 and Swine Flu in 2009 in Hong Kong explained that there is a role for fear and anxiety in triggering panic buying behavior [11]. When the SARS virus occurs, there is a social behavioral response, namely high anxiety [24] and panic buying [8]. However, when the Swine Flu pandemic occurred, as many as 64% of Hong Kong residents were doing their usual activities [22], and the level of fear or anxiety was relatively low. Fast et al. [11] explained that experience and preparedness to face a pandemic affect the panic response in society. Panic buying behavior during the COVID-19 pandemic occurred because of a psychological conflict in the community regarding a sense of security with the desire to live normally [6]. Also, the fear factor is closely related to feelings of insecurity [3,21].

The pandemic COVID-19 that occurred in Indonesia has become the media spotlight both at home and abroad. The relevant information has spread rapidly on various social media, from fact stories to fake reports that create panic among recipients. According to Cheng [8] the unclear information received can affect panic for individuals, besides that the more news received will also make someone think about an epidemic and cause panic. The massive amount of information related to unpleasant things can cause a panic effect on the recipient which in turn triggers panic buying behavior [32]. Information such as the increasing number of spreads, the death of medical personnel, to the scarcity of medical devices that can hinder emergency health services for COVID-19 [35]. In addition to various confusing reports regarding the development of the pandemic, media reporting the unclear government's response to COVID-19 can also cause a decrease in trust in the government. According to Wijaya [39] a factor in the occurrence of panic buying behavior, namely a lack of trust in government information and response to information developments that make consumers not get complete information.

Public trust in government is seen as important in ensuring compliance and concerted and coordinated efforts to manage and control the spread of disease. The high level of social trust which includes trust in society and the government will show that individuals will be more cooperative and consider not hoarding goods or panic buying [41]. This is also supported Mas'udi & Winanti [28] which states that when a pandemic occurs, there is a dilemma between health and economic needs. A country that has limited resources will worsen the situation if there is no good social solidarity, low trust, and public obedience to the government so that individuals tend to take their actions.

The government's role in handling the COVID-19 cases that occurred in Indonesia has drawn various criticisms over speed, effectiveness, and resilience. Starting with the government's attitude that is considered not responsive in overcoming COVID-19 in Indonesia, the government even denied through some funny jokes that COVID-19 will not enter Indonesia due to the difficulty of licensing [19]. Also, the Minister of Health asked the public to just "enjoy" dealing with this fast-spreading virus. This makes the public astonished to respond to jokes that seem relatable [17]. Chairman of the Anti-Slander Society (MAFINDO) Septiaji Eko
Nugroho regretted the government's position of continuing to provide uncertainty through denying statements. This uncertainty will provide an assessment of a situation that is overly accepted which also arises from the results of a reaction of concern so that individuals tend to find it difficult to make rational decisions [32]. As described on the page (CNN Indonesia, 2020) after the reporting of the first case on March 2, 2020, the government tends to be closed and is reluctant to open data about the distribution of COVID-19 cases because they don't want the public to panic. According to UGM Communications expert Kuskridho Ambardi, the government is also considered to have three obstacles in handling this COVID-19 case, namely unclear coordination, firmness of distribution data, and limited handling information [36]. The fragility of coordination, strategic transparency, and responsive communication to the government in managing information will slowly have an impact on weakening public trust (citizen trust) in the government [28].

Public trust defines as the belief and availability in taking action both for one's benefit and for the benefit of others based on the object of trust, identified based on the results of an assessment of ability, virtue, and integrity [25]. Citizen trust is also explained as a collective assessment of one group on another group that the group will act honestly, can fulfill its commitments, and will not harm other groups [29]. An open and responsive government is an enabling environment to strengthen trust between the government and society in both directions [29]. According to Grimmelikhuijsen & Knies [16] citizen trust in government can be seen from three dimensions. Perceived Competence, citizens perceive the government as capable, effective, capable, and professional in carrying out their duties. Perceived Benevolence the extent to which a citizen views government organizations to care about the welfare of society and is motivated to act in the public interest. Perceived Integrity how society views government organizations to be sincere, able to tell the truth and to fulfill their promises.

Based on the results of previous research belonging to Yuen et al. [41] which reviewed the factors that cause panic buying through social networks, it found that social trust factors consist of two main aspects, namely trust in society and government. Trust in government makes it clear that the government plays an important role in providing relief and recovery, maintaining order and control, and disseminating information to the public during disease outbreaks. When social trust is high, individuals will be more cooperative and do not hoard goods. When the trust of the community itself and the government is low, these individuals will tend to act individually. A high level of social trust will indicate that individuals will be more afraid of other people buying more than their share, which triggers panic buying behavior.

Researchers conducted analyze the effect of fear of covid and citizen trust on panic buying behavior. Researchers hope that this research will be able to provide benefits as a reference and serve as material for evaluating the government and the Indonesian people in response to the pandemic.

2 Method

This research is a type of correlational quantitative research. According to Azwar [5], a quantitative approach is an approach that emphasizes data in the form of numbers processed through statistical methods in the analysis process. Correlational research aims to investigate interrelated variables with each other, to obtain information on the level of relationship that occurs in two or more variables. This study uses three variables, namely the first independent variable \(x_1\) is fear of covid, the second independent variable \(x_2\) is citizen trust and the
dependent variable (y) is panic buying. This study aims to determine the role of fear of covid-19 and citizen trust in the government on panic buying behavior during the COVID-19 pandemic.

2.1 Respondents

According to Azwar [5] population is a group of subjects that will be subject to generalization. The population is all research subjects who have characteristics and qualities that have determine to be studied and researched in research [37]. The sampling method in this study was to use a purposive sampling technique. The use of this technique was chosen based on the characteristics possessed by members in the population who can provide information as needed in this study, characteristics as Indonesian citizens, aged at least 18 years, affected by the COVID-19 pandemic both economically, socially, culturally, healthily, education, and others. The number of respondents in this study was 536 participants who had the suitability of the characteristics as respondents in this study.

2.2 Instrument

This study uses three types of scales with a Likert scale. Each instrument item that uses a Likert scale will have a choice of answers from very negative to very positive, and from these answers have their respective scores [37]. The scale used in this study, based on the existing variables, there are three scales to be used, namely the Panic Buying scale, Fear of Covid-19, and Citizen Trust.

2.2.1 Panic buying scale

The Panic Buying Scale is used to measure excessive shopping behavior that occurs when a person experience concerns about the scarcity of goods when faced with a crisis or threatening situation. This study uses Wijaya's [39] Panic Buying scale. A scale of 15 items consists of four factors that affect the items answered using a 4-point Likert scale ranging from strongly disagree to strongly agree.

2.2.2 Fear scale of COVID-19

The Fear of COVID-19 scale is used by researchers to measure the fear raised by the community during the COVID-19 pandemic. This scale has a Cronbach Alpha of 0.82 which consists of 7 favorable items, which means that it supports the dimensions or theory and is answered using a 4-point Likert scale ranging from strongly disagree to strongly agree. This scale was developed by Ahorsu et al. (2020) which has a positive correlation and concurrent validity with Motazeri's (2003) Hospital Anxiety and Depression Scale (HADS) and Ahmadzadeh's Perceived Vulnerability to Disease Scale (PVDS) (2013).

2.2.3 Citizen trust scale

The Citizen Trust scale used by researchers to measure people's trust in the government in the COVID-19 pandemic conditions using the Citizen Trust in Government Organization (CTGO) scale, developed by Grimmelikhuijsen and Knies [16] which has been adapted by Wahyudi, Milla, & Muluk [38] in his latest research using theoretical references [25]. This scale
has a Cronbach Alpha of 0.930 consisting of 12 items that answered using a 4-point Likert scale ranging from strongly disagree to strongly agree. At this scale, it consists of three dimensions, consisting of Perceived Competence - the perception of citizens that the government is capable, effective, capable, and professional in carrying out its duties, Perceived Benevolence - the perception of citizens who view government organizations to care about the welfare of society and are motivated to act for the public interest, Perceived Integrity - society's perception of a government organization to be sincere, able to tell the truth and to fulfill its promises.

Based on Table 1, it is known that the three measuring instruments are in the high-reliability category, with the Citizen Trust Scale, the Cronbach's Alpha value is 0.949, the fear of covid is 0.82, and the Panic Buying Scale has a Cronbach's Alpha value of 0.945.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Reliability</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citizen Trust</td>
<td>0.949</td>
<td>12</td>
</tr>
<tr>
<td>Fear of Covid-19</td>
<td>0.82</td>
<td>7</td>
</tr>
<tr>
<td>Panic Buying</td>
<td>0.945</td>
<td>15</td>
</tr>
</tbody>
</table>

2.3 Data analysis

This study aims to analyze the simultaneous and partial role of fear of covid-19 and citizen trust in panic buying using multiple linear regression with the help of SPSS software.

3 Results and Discussion

This study was analyzed through two tests, namely assumption testing and hypothesis testing. The results showed that there was a partial and simultaneous role between fear of covid and citizen trust in panic buying.

3.1 Classic assumption test

3.1.1 Normality test

The normality test was carried out by researchers to determine whether or not a data distribution was normal in the study using a simple regression analysis. The normality test was tested using the Kolmogorov-Smirnov (K-S) statistical test with the following values.

Based on Table 2, it is known that the asym value. Sig (2-tailed) of 0.070, which means greater than 0.05, it can be concluded that the normality test shows that the data is normally distributed. Also, data normality can be seen from Figure 1 which shows the data is normally distributed because it follows a diagonal line.
Table 2. One-sample kolmogorov-smirnov test

<table>
<thead>
<tr>
<th>Normal Parameters\textsuperscript{ab}</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>536</td>
<td></td>
</tr>
<tr>
<td>Most Extreme Differences</td>
<td>Absolute</td>
<td>.037</td>
</tr>
<tr>
<td></td>
<td>Positive</td>
<td>.037</td>
</tr>
<tr>
<td></td>
<td>Negative</td>
<td>-.033</td>
</tr>
<tr>
<td>Test Statistic</td>
<td></td>
<td>.037</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td></td>
<td>.070\textsuperscript{c}</td>
</tr>
</tbody>
</table>

\textsuperscript{a} Test distribution is normal.
\textsuperscript{b} Calculated from data.
\textsuperscript{c} Lilliefors significance correction.

Fig. 1. Normality distribution

3.1.2 Linearity test

A linearity test was conducted to determine whether the data from this study, each variable can be linearly related following a straight line or not [37]. The linearity test results are shown by looking at the Deviation from Linearity value and the linearity value. The linearity test results are said to have a linear relationship if it is above the significance level of < 0.05 (less than 0.05). The results of the data in Table 3 show a Linearity value of 0.000 <0.05, it can conclude that there is a significant linear relationship between the independent variable and the dependent variable.

Table 3. Linearity table

<table>
<thead>
<tr>
<th>Variable</th>
<th>Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fear of covid*</td>
<td>Linearity</td>
</tr>
<tr>
<td>Citizen Trust*</td>
<td>Panic</td>
</tr>
<tr>
<td>Buying</td>
<td></td>
</tr>
</tbody>
</table>
3.1.3 Multicollinearity test

Based on Table 4, it is known that there are no symptoms of multicollinearity. Both fears of covid and citizen have a tolerance value of more than 0.100 and a VIF value of less than ten so that it can conclude that there are no symptoms of multicollinearity in the two independent variables.

<table>
<thead>
<tr>
<th>Model</th>
<th>Collinearity Statistics</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tolerance</td>
<td>VIF</td>
</tr>
<tr>
<td>(Constant)</td>
<td>.993</td>
<td>1.007</td>
</tr>
<tr>
<td>Fear of Covid (X1)</td>
<td>.993</td>
<td>1.007</td>
</tr>
<tr>
<td>Citizen Trust (X2)</td>
<td>.993</td>
<td>1.007</td>
</tr>
</tbody>
</table>

a. Dependent variable: panic buying (Y)

3.1.4 Heteroscedasticity test

Based on Figure 2, it shows that there are no symptoms of heteroscedasticity because the dots do not show a clear pattern such as not wavy, not widening, or not narrowing (Ghazali, 2011). The dots spread above and below the 0 on the Y-axis.

3.2 Hypothesis test

3.2.1 Simultaneous role between fear of covid and citizen trust to panic buying

The first hypothesis of this study aims to prove the simultaneous role of fear of covid and citizen trust in panic buying. The results of this study indicate that there is a role simultaneously
between fear of covid and citizen trust in panic buying, this can be seen from the results of the F test. Multiple linear regression by looking at the simultaneous role based on the F test, namely the meaning of the role of variable X together with variable Y occurs when the significance value is less than 0.05. Based on the Table 5, it can conclude that fear of covid and citizen trust together play a role in panic buying by looking at the significance value of less than 0.05 (0.000). The role size has seen from the R square value, namely 0.095 or 9.5%.

<table>
<thead>
<tr>
<th>Table 5. Simultaneous role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>a. Predictors: (constant), Citizen trust (X2), Fear of covid (X1)</td>
</tr>
<tr>
<td>b. Dependent variable: Panic buying (Y)</td>
</tr>
</tbody>
</table>

3.2.2 t-test

The partial role of each independent variable on the dependent variable through the t-test by looking at the significance value shown in Table 6, it is seen that the significance value of the fear of the covid variable is 0.00, while citizen trust has a value of 0.94. It can conclude that partially only the fear of covid variable has a partial role in panic buying, while citizen's trust does not partially play a role in panic buying.

<table>
<thead>
<tr>
<th>Table 6. t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>1 (Constant)</td>
</tr>
<tr>
<td>Fear of Covid (X1)</td>
</tr>
<tr>
<td>Citizen Trust (X2)</td>
</tr>
<tr>
<td>a. Dependent variable: Panic buying (Y)</td>
</tr>
</tbody>
</table>

3.3 Discussion

This study aims to determine the simultaneous and partial between fear of COVID-19 and citizen trust in panic buying behavior during the COVID-19 pandemic in Indonesia. This study involved 536 respondents who were Indonesian citizens (WNI) who were at least 18 years old and were affected by the pandemic both socially, economically, educationally, and others.

The results of this study indicate that there is a simultaneous role between fear of COVID-19 and citizen trust in panic buying behavior during the COVID-19 pandemic in Indonesia with significant results. Referring to Shadiqi et al. [32] which explains the psychological factors in the occurrence of panic buying, that there are four things behind this behavior, namely consumer behavior, fear and anxiety, uncertainty, and media exposure. Panic buying behavior is a manifestation of fear and anxiety that occurs in individuals about threats. Jinqiu and Wilson et al explain that this behavior is a survival mechanism or instinct of individuals that makes people afraid of death, which they do to defend themselves.

The pandemic COVID-19 in Indonesia has triggered social behavioral responses such as anxiety and fear. The fear of this with the public and the government that is not ready yet has an impact on panic buying behavior. The fear that occurs in the wider community causes psychological conflict so that there is a sense of being safe with the desire to survive normally.
Fear is closely related to perceived security during the COVID-19 pandemic [3],[21]. A pandemic outbreak is considered a worrying threat, triggering feelings of anxiety and fear about the future, and one reason is the uncertainty of whether there will be enough food and supplies during this period. Panic buying can be a response to perceptions of a lack of control regarding the future and social demands [34], and this sense of loss of control has a major impact on stress levels. In this sense, people can deliberately engage in certain types of buying behavior as a reaction to emotional distress. Therefore, buying more than usual can be seen as a way to deal with feelings of uncertainty, and as an act of self-defense. High levels of anxiety or fear also indicate that individuals will be more prone to feeling insecure and behave to reduce their anxiety and fear resulting in excessive buying and hoarding behavior. Meanwhile, if individuals have a low level of anxiety or fear, they will be calmer to act and be more cooperative in dealing with the COVID-19 pandemic.

The fear of COVID-19 in society during this pandemic has a small role in panic buying behavior. Fear of COVID-19 explains the effect of 13% on panic buying behavior during the pandemic period in Indonesia, this is because many factors influence individuals to take panic buying actions or behavior. Shadiqi et al. [32] explained that in their research, some other variables and theories can explain factors that can increase panic buying behavior in a pandemic/crisis that is not explained in this study. Factors such as consumer behavior, media exposure, uncertainty, and social cognitive theory can explain the dynamics of panic buying behavior. Besides, Yuen et al. [41] also explain several factors that can increase panic buying behavior during a pandemic, including individual perceptions of health or other events that can trigger panic buying behavior, perceived threats and rarities, uncertainty, coping behavior, and psychological factors. social influences such as social influence and social trust. Naeem (2020) also explained in his research that panic over COVID-19 that triggers panic buying is grouped with factors from negative to positive, including ignorance, paranoia, sadness, fear of transmission of viruses, government blaming, relating to past pandemics, dissemination of information, calm in the face of crises, compliance, optimism, and health consciousness.

Other factors that influence other panic buying behavior are explained in proprietary research [39] which discusses the factors that shape panic buying behavior due to COVID-19 in Indonesia. This research was conducted using an exploratory study of several people who behave panic buying in areas affected by COVID-19. The first factor is information on the scarcity of an item or a diminishing stock in the market, lack of clarity on the availability of goods and food security, lack of accurate and valid information received by the public which results in panic. Second, panic buying behavior is defined as a form of protection for family members by fulfilling their daily needs to avoid a lack of supply of foodstuffs, medical devices, and also medicines. Third, includes the influence of other people's behavior and the condition of the shopping center. Finally, the factor of concern for restricting access is a form of security and tranquility. This factor occurs as a form of avoiding the risk of uncertainty about when this outbreak will end and also as a way to prevent a decrease in immunity due to not meeting daily needs. The explanation of other factors or variables above assumes that the fear of COVID-19 in the community in causing panic buying behavior during the COVID-19 pandemic in Indonesia is a small part of other things that can explain or influence the occurrence of panic buying behavior.
4 Conclusion

The study of 536 Indonesian citizens affected by the Covid-19 pandemic shows that simultaneously fear of covid and citizen trust plays a role in panic buying. Meanwhile, partially citizen trust is not enough to encourage panic buying behavior, but fear of covid has a role in panic buying behavior.

References


The Effect of Local Revenue on Local Expenditures in East Kalimantan Province, Indonesia

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Abstract. This research aim is to know, test, and analyzing the effect of local revenue and matching grant (general allocation fund, special allocation fund, and profit-sharing fund) on local expenditure at districts/cities in East Kalimantan province. This research uses quantitative methods with documentary data from the realization of district/city APBD in East Kalimantan Province. The analytical tool is the Multiple Linear Regression. The study's findings indicate that local revenue has a positive and statistically significant effect on local expenditure, that general allocation funds have a positive and statistically significant effect on local expenditure, that special allocation funds have no effect on local expenditure, and that revenue sharing funds have a positive and statistically significant effect on local expenditure. Local Revenue (PAD), General Allocation Fund (DAU), Special Allocation Fund (DAK), and Profit-Sharing Fund (DBH) simultaneously have a positive and significant effect on local expenditure at Districts / Cities in East Kalimantan Province for 2014-2018 period. The result indicates that R² is 0.905 or 90.5%, it means the effect on local expenditure is 90.5%, while the remaining 9.5% is affected by other variables outside this study.

Keywords: Local revenue, general allocation fund, special allocation fund, profit sharing fund, local expenditure

1 Introduction

This research is interested to examine some districts in East Kalimantan Province that do not receive the General Allocation Fund. One of them is Kutai Kartanegara district. This is a sign that the district is rich. However, in reality, the construction of road infrastructure is very worrying, because there are still many roads full of holes. This is something that contrary to reality [1]. This condition strengthens the demands for transparency and accountability aspects [2]. These two aspects are important in management of state and regional finances. It becomes the trigger for the transition process from a deconcentration system to a decentralization system called autonomy [3].

The state revenue from profit-sharing funds is set at 90%, with the share if 16.2% for the province and 64.8% for the districts/cities. The collection fee of 9% and 10% is allocated to all regencies and cities, while the land and building tax is classified as 90% for regions [4].
2 Literature Review

Law Number 33 of 2004 [5] on the Financial Balance of the Central Government and Local Governments stated that local revenue was collected by regions pursuant to Regional Regulations. Meanwhile, local revenue recognizes local government rights as an addition to asset value. The government has the right to obtain regional revenue as an addition to funds equity in the appropriate fiscal year.

2.1 Dependent variable (Y)

The dependent variable is influenced by the independent variable [6]. Local expenditure is the dependent variable in this research. Domestic Affairs Minister Regulation No. 13 of 2011 [7] on Regional Financial Management mentioned that local expenditures comprise all expenditures from regional general treasury accounts that diminish fund equity, regional liabilities in a fiscal year, and payment was not reclaimed by regions [8].

2.2 Local revenue (PAD) = X1

Local revenue is defined in Law Number 23 of 2014 [5] as funds collected by a region in line with regional laws and statutory requirements [9].

2.3 General allocation fund (DAU) = X2

Government Regulation no. 55 the year 2005 [4] on General Allocation Fund (DAU) stated that General Allocation Fund is a fund from APBN which is allocated with the aim to equalize inter-regional finance to finance expenditure needs in the context of decentralization implementation [10].

2.4 Special Allocation Fund (DAK) = X3

According to Law No. 23 of 2014 [5], the Special Allocation Fund (DAK) is a fund derived from APBN earnings distributed to certain areas with the purpose of facilitating the fund's use for special activities such as regional affairs and national priorities [11].

2.5 Profit-sharing fund (DBH) = X4

Article 1 paragraph 49 of Law Number 23 of 2014 [5] [12] on Local Government stated that the Profit-Sharing Fund, hereinafter abbreviated as DBH, is funds derived from certain APBN revenues that are allocated to region contributors based on a certain percentage with the purpose of reducing financial capacity imbalances between the Central and Local Governments. Article 1 paragraph 47 of 2004's Law No. 33 on Local Government stated that DBH is supported by APBN, which are provided with the goal of balancing interregional financing in order to pay spending demands associated with decentralization implementation [13]. The distribution of the DBH money is shown in Table 1.
Table 1. Distribution of tax sharing funds

<table>
<thead>
<tr>
<th>No</th>
<th>Type</th>
<th>DBH Tax</th>
<th>DBH Proportion of Local Tax</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Government</td>
<td>Local</td>
</tr>
<tr>
<td>1</td>
<td>PBB</td>
<td>10%</td>
<td>90%</td>
</tr>
<tr>
<td>2</td>
<td>BPHTP</td>
<td>20%</td>
<td>80%</td>
</tr>
<tr>
<td>3</td>
<td>PPH</td>
<td>80%</td>
<td>20%</td>
</tr>
</tbody>
</table>

Source: Government regulation no. 55 the year 2005

DBH from taxes is the local portion derived from land and building tax revenue. It consists of Cost of Land Acquisition and Building Rights, Income Tax in Article 25 and Article 29 Domestic Individual Taxpayer, and Income Tax in Article 21. Distribution of Oil and Gas Balancing Funds to regions is done by the basic assumption that the price of petroleum does not exceed 130% of stipulations in the current year of APBN [14], [15]. The difference in state revenue from oil and natural gas as a result of excess is allocated using the DAU formula. Based on this explanation, the research framework for the relationship between independent and dependent variables are shown in Figure 1.

![Research Conceptual Framework](image)

2.6 Hypothesis

Based on the description of the theory, the research hypothesis can be formulated as General Allocation Fund (DAU), Local Revenue (PAD), Profit Sharing Fund (DBH), Special Allocation Fund (DAK), which all have a positive and significant effect on Local expenditure.
3 Method

The operational definition is a phrase that serves to explain the variables under investigation. The purpose of this study is to ascertain the impact of DAD, DAU, DAK, DBH on local spending in Samarinda City. The population is defined as a segment of the population made up of objects/subjects with specific features and attributes chosen by the researcher for the purpose of data collection. [4]. This study enrolled residents of all districts and cities in East Kalimantan Province.

The documentation is used to compile data for this investigation. This approach is used to collect data on PAD, DAU, DAK, and DBH in East Kalimantan. The following data analysis approaches were used in this investigation. To gain an overview of the study sample, descriptive statistical analysis is utilized. It contains the mean, mode, maximum, median, and lowest values for each variable in the research model [16]. Many linear regression is a statistical approach for examining the connection between multiple independent variables and a single dependent variable. The following are the equation models for multiple regression analysis.

\[ Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + e \] (1)

Description:
- \( Y \) = Local expenditure
- \( a \) = Constant
- \( b_1 \) = Regression coefficient of local revenue (PAD)
- \( X_1 \) = Local revenue (PAD)
- \( b_2 \) = Regression coefficient of general allocation fund (DAU)
- \( X_2 \) = General allocation fund (DAU)
- \( b_3 \) = Regression coefficient of special allocation fund (DAK)
- \( X_3 \) = Special allocation fund (DAK)
- \( b_4 \) = Regression coefficient of profit-sharing fund (DBH)
- \( X_4 \) = Profit sharing fund (DBH) [6]

4 Results and Discussion

Topographic circumstances have a significant impact on a commodity's cultivation prospects, water potential and availability, hydrological dynamics, and susceptibility to erosion. According to the topography, the majority of the land area (43.35 percent) is within the 40% slope, while 43.22 percent is located between 100 and 1000 meters above sea level. As a result, land use in East Kalimantan Province must take into account the land's peculiarities. East Kalimantan Province is divided into ten districts/cities: (1) Berau, (2) West Kutai, (3) Kutai Kartanegara, (4) East Kutai, (5) Paser, (6) North Penajam Paser, (7) Mahakam Ulu, (8) Balikpapan, (9) Bontang, and (10) Samarinda. Local expenditure is the dependent variable, whereas PAD, DAU, DAK, DBH are the independent variables. Table 2 summarizes the data.
Table 2. Descriptive statistics results

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Range</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAD</td>
<td>50</td>
<td>1334713</td>
<td>3723</td>
<td>1338436</td>
<td>262109.26</td>
<td>242819.478</td>
<td>58961298700</td>
</tr>
<tr>
<td>DAU</td>
<td>50</td>
<td>560467</td>
<td>104683</td>
<td>665150</td>
<td>389625.66</td>
<td>242819.478</td>
<td>58961298700</td>
</tr>
<tr>
<td>DAK</td>
<td>50</td>
<td>365009</td>
<td>1575</td>
<td>366584</td>
<td>366584</td>
<td>1575</td>
<td>366584</td>
</tr>
<tr>
<td>DBH</td>
<td>50</td>
<td>4819975</td>
<td>252167</td>
<td>104627.76</td>
<td>922720.762</td>
<td>851413604300</td>
<td>58961298700</td>
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<tr>
<td>BD</td>
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<td>6289590</td>
<td>485783</td>
<td>6775373</td>
<td>2271950.02</td>
<td>1222828.633</td>
<td>851413604300</td>
</tr>
</tbody>
</table>

Valid N 50

Source: Secondary data processed, 2020

Table 2 shows that Local expenditure variable (Y) has the lowest value of 485,783, highest value of 6,775,373, range value of 6,289,590, average value of 2,271,950.02 and standard deviation value of 1,222,828,633. The Local revenue variable (X1) has the lowest value of 3,723, highest value of 1,338,436, range value of 1,334,713, average value of 262,109.26 and standard deviation value is 242,819,478. The General Allocation Fund (X2) variable has the lowest value of 104,627.76 and the standard deviation value of 922,720.762. The Special Allocation Fund (X3) variable has the lowest value of 1,575, highest value of 366,584. range value of 365,009, average value of 97,540.72 and standard deviation value of 85,594,247.

4.1 Classic assumption test

Normality, Multicollinearity, Heteroskedasticity, and Autocorrelation are all forms of classical assumption tests. To begin, the Kolmogorov-Smirnov Normality Test is included in the classical hypothesis test. The normality test indicates that the data in this study have a normal distribution. The dots that encircle the diagonal lines up and down indicate this. Additionally, the Kolmogorov-Smirnov test value is 0.20>0.05, indicating a substantial difference. It is well established that the residual value follows a normal distribution. Furthermore, the Multicollinearity test is used to determine the relationship between independent variables. No connection exists between the dependent and independent variables in a good regression model. Table 3 summarizes the findings of the multicollinearity test on the research variables.

Table 3. Multicollinearity test results

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized B</th>
<th>Std. Error</th>
<th>Standardized Beta</th>
<th>Collinearity t</th>
<th>Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>-28644.968</td>
<td>178263.150</td>
<td>-.161</td>
<td>.873</td>
</tr>
<tr>
<td>PAD</td>
<td>.743</td>
<td>.224</td>
<td>.148</td>
<td>3.314</td>
<td>.002</td>
</tr>
<tr>
<td>DAU</td>
<td>1.937</td>
<td>.335</td>
<td>.274</td>
<td>5.773</td>
<td>.000</td>
</tr>
<tr>
<td>DAK</td>
<td>-2.08</td>
<td>.644</td>
<td>-.015</td>
<td>-3.24</td>
<td>.748</td>
</tr>
<tr>
<td>DBH</td>
<td>1.311</td>
<td>.063</td>
<td>.989</td>
<td>20.810</td>
<td>.000</td>
</tr>
</tbody>
</table>

a. Dependent variable: Local expenditure

Third, Table 3 shows that tolerance value for Local Revenue (X1) is 0.980> 0.10, General Allocation Fund (X2) is 0.865> 0.10, Special Allocation Fund (X3) is 0.956> 0.10, and Fund...
Profit Sharing (X4) is 0.860 > 0.10. It can be seen that all the tolerance values of each variable are not more than 0.10 so that there is no indication of any multicollinearity symptoms. The VIF value of Local Own Revenue (X1) is 1.020 < 10, General Allocation Fund (X2) is 1.156 < 10, Special Allocation Fund (X3) is 1.046 < 10, and Profit-Sharing Fund (X4) is 1.163 < 10. It can be seen that all the VIF values of each variable are less than 10 so that there is no multicollinearity symptom. Fourth, the autocorrelation test is used to assess whether or not the multiple linear regression model has a confounding error in period t that is related to an error in the prior t period. The Durbin-Watson test is employed in Table 4 to determine autocorrelation.

Table 4. Durbin-Watson autocorrelation test results

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std.Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.955a</td>
<td>0.923</td>
<td>0.905</td>
<td>377265.513</td>
<td>1.213</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), DBH, PAD, DAK, DAU
b. Dependent Variable: Local Expenditure

Table 4 shows that Durbin Watson value is 1.213, which means that Durbin Watson value (DW) > -2 and DW value <2. It means that autocorrelation does not occur [16].

Heteroscedasticity Test. The heteroscedasticity test is done with Glesjser heteroscedasticity test between the research variables, as shown in Table 5.

Table 5. Glesjser heteroscedasticity test results.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std.Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>.973</td>
<td>.585</td>
<td></td>
<td>1.663</td>
</tr>
<tr>
<td>PAD</td>
<td>.010</td>
<td>.015</td>
<td>.107</td>
<td>.656</td>
</tr>
<tr>
<td>DAU</td>
<td>-.043</td>
<td>.030</td>
<td>-.220</td>
<td>1.422</td>
</tr>
<tr>
<td>DAK</td>
<td>.008</td>
<td>.012</td>
<td>.100</td>
<td>.660</td>
</tr>
<tr>
<td>DBH</td>
<td>-.036</td>
<td>.027</td>
<td>-.211</td>
<td>1.303</td>
</tr>
</tbody>
</table>

a. Dependent variable: abs_res
Source: Secondary data processed, 2020

Table 5 shows Local Revenue has a significant value of 0.515, General Allocation Fund has a significant value of 0.162, Special Allocation Fund has a significant value of 0.513, and Profit-Sharing Fund has a substantial value of 0.199, which is more than the 0.05 threshold. It can be concluded that the regression model used to examine the influence of PAD, DAU, DAK, DBH on local expenditure does not exhibit issues with heteroscedasticity.

4.2 Multiple regression test

The coefficient of determination (R2) is used to assess a model's capacity to account for variance in independent variables. The small value of R2 indicates that the independent variable's capacity to influence the dependent variable is quite restricted. R2's shortcoming is that it is skewed toward the number of independent variables in the model [17]. As a result, it is advised to utilize the Adjusted R2 value for determining the optimal regression model. Adjusted
R2 (determination coefficient) equals 0.913. This indicates that the independent variables (X) have a 91.3 percent influence on the dependent variable (Y). Meanwhile, the remaining 8.7 percent was influenced by characteristics not included in the research. The t-test was used to determine the independent factors' partial impact on the dependent variable. The following approach may be used to locate the t table: The number of variables X (k) equals four, and the amount of data / response / sample (n) equals fifty. Significance level (sig) two sides = 0.05 = 5% = because two sides equal 0.025. Degrees of freedom (df = n-k-1) are equal to 50-4-1=45. The t table is equal to 2.01410 (seen from T table). Table 6 summarizes the findings of statistical calculations on the partial test.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>-28644.968</td>
</tr>
<tr>
<td></td>
<td>PAD</td>
<td>.743</td>
</tr>
<tr>
<td></td>
<td>DAU</td>
<td>1.937</td>
</tr>
<tr>
<td></td>
<td>DAK</td>
<td>-.208</td>
</tr>
<tr>
<td></td>
<td>DBH</td>
<td>1.311</td>
</tr>
</tbody>
</table>

Table 6. Partial test results (T Test)

Local Revenue. As can be seen in Table 6, t count = 3.314 and t table (df = n-k-1) = 2.01410, the t count t table is statistically significant at 0.002, implying that PAD has a positive and substantial influence on local expenditure, fund for General Allocation. As shown in Table 7, t count = 5.773 and t table (df = n-k-1) = 2.01410, the t count T table has a substantial influence on local spending of 0.000, indicating that DAU have a positive and significant effect on local expenditure.

Simultaneous Examination (Test F). The F test is used to assess the influence of many independent factors on the dependent variable concurrently. If sig value 0.05 or F count> F table, the F-test is significant, indicating that independent factors have a concurrent influence on the Y variable. If the sig value is more than 0.05 or the F count is greater than the F table, then there is no concurrent impact dependent variable. Table 7 summarizes the findings of the F test.

<table>
<thead>
<tr>
<th>Model</th>
<th>ANOVAa</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sum of Squares</td>
</tr>
<tr>
<td>1</td>
<td>Regression</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
</tr>
</tbody>
</table>

Table 7. Simultaneous significant test results (Test F)

F count = 117.448 f table of 2.57 and a significance level of 0.000 0.05 are shown in Table 7. This indicates that the independent variables of local PAD, DAU, DAK, DBH all have a substantial positive influence on local expenditure.
4.3. Discussion

4.3.1 Local revenue's impact on local expenditure

According to the study's findings, local revenue has a coefficient of 3.314 and a significance level of 0.002, 0.05. This exemplifies that, between 2014 and 2018, local revenue has a significant beneficial effect on local expenditure. The findings of this study confirm those of previous research [5], [13], which found that PAD has a substantial beneficial influence on local expenditure with a significance value of 0.000, which is less than 0.05 [8].

4.3.2 The impact of DAU on local expenditure

The coefficient value of general allocation funds in this study is 5.773, with a significance level of 0.000, 0.05. It demonstrates that DAU have a considerable beneficial influence on local expenditure from 2014 to 2018. These findings are corroborated by studies [5] and [13], which concluded that monies for DAU have a positive and substantial influence on local expenditure, with a significance value of 0.000 being less than 0.05 [8].

4.3.3 The effect of DAK funds on local expenditure

According to this study, DAK have a coefficient of -0.324 and a significance level of 0.748, >0.05. It demonstrates that DAK have no discernible influence on local expenditure between 2014-2018. This is consistent with earlier studies done by [6] and [15], which concluded that DAK had no discernible influence on local expenditure when the significance value of 0.58 is larger than 0.05 [8].

4.3.4 The effect of profit-sharing funds on local expenditure

Profit-sharing funds are found to have a coefficient of 20,810 and a significant value of 0,000, 0.05. It demonstrates that profit-sharing funds have a favorable and considerable influence on local expenditure between 2014-2018. The findings of this study confirm those of [5] and [13], which claimed that profit-sharing funds have a positive and substantial effect on local expenditure when the substantial value is less than 0.000 [8], [15].

4.3.5 The effect of local revenue, general allocation fund, special allocation fund and profit-sharing fund on local expenditure

According to the F test, all PAD, DAU, DAK, DBH have a positive coefficient value of 117.448 and a significance level of 0.000, 0.05. Also, have a positive and significant impact on local expenditure between 2014 and 2018.

5. Conclusion

This research's result may be summarized as follows. For the years 2014-2018, PAD, DAU, and DBH have a positive and significant influence on local expenditure in districts/cities across
East Kalimantan Province. Then, from 2014 to 2018, DAK has had no discernible influence on local expenditure in districts/cities throughout East Kalimantan province.

References


Factors Affecting Taxpayer Compliance in Paying Pajak Bumi dan Bangunan (PBB P2) in Kutai Kartanegara

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Politeknik Negeri Samarinda, Samarinda¹,²,³

Abstract. This study purpose to determine the effect of tax knowledge, awareness of taxpayers, the level of trust in the government, and tax sanctions on compliance with PBB P2 taxpayers in Kota Bangun Sub-district of Kutai Kartanegara District. The population in this study is the PBB P2 taxpayer in Kota Bangun Sub-district of Kutai Kartanegara District. The sampling technique uses accidental sampling, the number of samples is 100 respondents. The data collection method used was a questionnaire. The study used an analytical tool in the form of an instrument test, a classic assumption test, multiple linear regression analysis. The results showed that tax knowledge and the level of trust in the government had a positive and significant effect on compliance with PBB P2 taxpayers, while awareness of taxpayers and tax sanctions had a positive and not significant effect on compliance with taxpayers.

Keywords: Taxpayer compliance, taxation knowledge, taxpayer awareness, level of trust in the government, and tax sanctions

1 Introduction

Taxes as one of the largest sources of funding in the implementation and enhancement of national development in the context of increasing the prosperity and welfare of the people. The construction of facilities and infrastructure is carried out with the aim of being able to boost economic growth and job opportunities, so that equitable development can be achieved [12]. Taxes are considered very important, so the Indonesian government needs to take various efforts in collecting and managing these taxes properly so that the targeted tax revenue can be achieved optimally and even exceed the targets set by the government.

Taxes can be divided into 2 (two) types, namely Central Taxes and Regional Taxes. There are various kinds of Regional Taxes that have been set by the government, one of which is Pajak Bumi dan Bangunan (PBB-P2). Judging from the current implementation of tax collection by local governments, it is not uncommon for the realization of rural and urban land and building tax revenues not to reach the predetermined tax targets. Based on an informal report from the source https://nasional.kontan.co.id states that throughout the 2015-2019 period, PBB revenue decreased with an average growth of -10.4% per year. It could be that one of the reasons why this condition occurs is due to the non-compliance of the taxpayer in carrying out its obligations.

Rahayu [10] states that taxation conditions that require the active participation of taxpayers in carrying out their taxation require high taxpayer compliance, namely compliance in fulfilling
tax obligations. Based on data obtained from the Regional Revenue Agency of Kutai Kartanegara Regency, the realization of revenue from Rural and Urban Land and Building Taxes in Kota Bangun District in 2019 is Rp. 156,258,546.00, while the revenue target that has been set is Rp. 559,141,361.00. This indicates that the Kota Bangun District actually has great potential for regional income from PBB-P2, in fact the revenue target is still very far to be achieved. This field fact is interesting to study, namely what factors affect the non-compliance of P2 PBB taxpayers, so that later the Kutai Kartanegara Regency government can make a new strategy to increase PBB-P2 revenue in the following year.

The formulation of the research problem is as follows:

1. Does knowledge of taxation have a positive and significant effect on taxpayer compliance in paying PBB P2 Taxes in Kota Bangun District, Kutai Kartanegara Regency?
2. Does taxpayer awareness have a positive and significant effect on taxpayer compliance in paying PBB P2 Taxes in Kota Bangun District, Kutai Kartanegara Regency?
3. Does the level of trust in the government have a positive and significant effect on taxpayer compliance in paying PBB P2 Taxes in Kota Bangun District, Kutai Kartanegara Regency?
4. Does the tax sanction have a positive and significant effect on taxpayer compliance in paying PBB P2 Tax in Kota Bangun District, Kutai Kartanegara Regency?
5. Do tax knowledge, taxpayer awareness, level of trust in the government, and tax sanctions together have a positive and significant effect on taxpayer compliance in paying PBB P2 Tax in Kota Bangun District, Kutai Kartanegara Regency?

2 Method

This research is quantitative research. The type of data used in this study is primary data. The data source of this research uses data from the distribution of questionnaires filled out by PBB P2 taxpayers in Kota Bangun District. The population in this study were all PBB P2 taxpayers in Kota Bangun District. The sampling technique used accidental sampling technique with a sample size of 100 people. The data analysis tools used instrument test (validity test and reliability test), classical assumption test (normality test, heteroscedasticity test, and multicollinearity test), multiple linear regression analysis, and hypothesis testing (t statistical test, F statistical test, correlation coefficient, and the coefficient of determination).

3 Results and Discussion

3.1 Validity test

Based on the validity test Table 1, it can be seen that all statement items used in this research questionnaire are valid. This is evidenced by the fact that all statement items have $r_{count}$ values that are greater than the $r_{table}$ value and are positive.
Table 1. Validity test

<table>
<thead>
<tr>
<th>Variable</th>
<th>Item</th>
<th>r_{count}</th>
<th>r_{table}</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax Knowledge (X1)</td>
<td>X1.1</td>
<td>0.671</td>
<td>0.165</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>X1.2</td>
<td>0.655</td>
<td>0.165</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>X1.3</td>
<td>0.574</td>
<td>0.165</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>X1.4</td>
<td>0.613</td>
<td>0.165</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>X1.5</td>
<td>0.704</td>
<td>0.165</td>
<td>Valid</td>
</tr>
<tr>
<td>Taxpayer Awareness (X2)</td>
<td>X2.1</td>
<td>0.859</td>
<td>0.165</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>X2.2</td>
<td>0.839</td>
<td>0.165</td>
<td>Valid</td>
</tr>
<tr>
<td>Level of Trust in Government (X3)</td>
<td>X3.1</td>
<td>0.672</td>
<td>0.165</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>X3.2</td>
<td>0.731</td>
<td>0.165</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>X3.3</td>
<td>0.721</td>
<td>0.165</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>X3.4</td>
<td>0.659</td>
<td>0.165</td>
<td>Valid</td>
</tr>
<tr>
<td>Tax Sanctions (X4)</td>
<td>X4.1</td>
<td>0.723</td>
<td>0.165</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>X4.2</td>
<td>0.669</td>
<td>0.165</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>X4.3</td>
<td>0.593</td>
<td>0.165</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>X4.4</td>
<td>0.618</td>
<td>0.165</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>X4.5</td>
<td>0.572</td>
<td>0.165</td>
<td>Valid</td>
</tr>
<tr>
<td>Taxpayer Compliance (Y)</td>
<td>Y.1</td>
<td>0.720</td>
<td>0.165</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Y.2</td>
<td>0.765</td>
<td>0.165</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>Y.3</td>
<td>0.798</td>
<td>0.165</td>
<td>Valid</td>
</tr>
</tbody>
</table>

3.2 Reliability test

Based on the reliability test Table 2, it can be seen that all variables used in this research questionnaire are reliable. Therefore, the statement items on each of the research variables are feasible to be used as a measuring tool.

Table 2. Reliability test

<table>
<thead>
<tr>
<th>No</th>
<th>Variable</th>
<th>Cronbach Alpha</th>
<th>Standard</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Tax Knowledge (X1)</td>
<td>0.648</td>
<td>0.60</td>
<td>Reliable</td>
</tr>
<tr>
<td>2.</td>
<td>Taxpayer Awareness (X2)</td>
<td>0.612</td>
<td>0.60</td>
<td>Reliable</td>
</tr>
<tr>
<td>3.</td>
<td>Level of Trust in Government (X3)</td>
<td>0.644</td>
<td>0.60</td>
<td>Reliable</td>
</tr>
<tr>
<td>4.</td>
<td>Tax Sanctions (X4)</td>
<td>0.628</td>
<td>0.60</td>
<td>Reliable</td>
</tr>
<tr>
<td>5.</td>
<td>Taxpayer Compliance (Y)</td>
<td>0.625</td>
<td>0.60</td>
<td>Reliable</td>
</tr>
</tbody>
</table>

3.3 Normality test

Based on the results of the normality test using the One-Sample Kolmogorov-Smirnov Test above, it can be seen that the Kolmogorov-Smirnov value is 0.072 and significant at 0.200 (Table 3). This means 0.200 > 0.05, so it can be concluded that the residual data is normally distributed.
### Table 3. Normality test

<table>
<thead>
<tr>
<th>Variable</th>
<th>Test Statistic</th>
<th>Asymp. Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Influence of Taxation Knowledge (X1), Taxpayer Awareness (X2), Level of Trust in Government (X3), and Tax Sanctions (X4) on Taxpayer Compliance (Y)</td>
<td>0.072</td>
<td>0.200</td>
</tr>
</tbody>
</table>

### 3.4 Heteroskedasticity test

Based on the Table 4 of heteroscedasticity test results above, it can be seen that the significance value of all independent variables is above 0.05. This shows that the regression model does not occur heteroscedasticity.

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>t_count</th>
<th>Sig.</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax Knowledge (X1)</td>
<td>0.008</td>
<td>0.993</td>
<td>Heteroscedasticity does not occur</td>
</tr>
<tr>
<td>Taxpayer Awareness (X2)</td>
<td>1.080</td>
<td>0.283</td>
<td>Heteroscedasticity does not occur</td>
</tr>
<tr>
<td>Level of Trust in Government (X3)</td>
<td>-1.791</td>
<td>0.077</td>
<td>Heteroscedasticity does not occur</td>
</tr>
<tr>
<td>Tax Sanctions (X4)</td>
<td>-1.034</td>
<td>0.304</td>
<td>Heteroscedasticity does not occur</td>
</tr>
</tbody>
</table>

### 3.5 Multicollinearity test

Based on the multicollinearity test results Table 5, it can be seen that all independent variables have a tolerance value of more than 0.10. In addition, all independent variables when viewed from the VIF value also have a value less than 10. Thus, it can be concluded that the regression model in this study does not occur multicollinearity.

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Tolerance</th>
<th>VIF</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax Knowledge (X1)</td>
<td>0.758</td>
<td>1.319</td>
<td>Multicollinearity does not occur</td>
</tr>
<tr>
<td>Taxpayer Awareness (X2)</td>
<td>0.871</td>
<td>1.148</td>
<td>Multicollinearity does not occur</td>
</tr>
<tr>
<td>Level of Trust in Government (X3)</td>
<td>0.735</td>
<td>1.361</td>
<td>Multicollinearity does not occur</td>
</tr>
<tr>
<td>Tax Sanctions (X4)</td>
<td>0.755</td>
<td>1.324</td>
<td>Multicollinearity does not occur</td>
</tr>
</tbody>
</table>

### 3.6 Multiple Linear Regression Analysis

Based on multiple linear regression analysis showed on Table 6.

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Coefficient Regression</th>
<th>t_hitung</th>
<th>Sig.</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>3.162</td>
<td>2.143</td>
<td>0.035</td>
<td>H1 be accepted</td>
</tr>
<tr>
<td>Tax Knowledge (X1)</td>
<td>0.225</td>
<td>3.349</td>
<td>0.001</td>
<td>H2 not accepted</td>
</tr>
<tr>
<td>Taxpayer Awareness (X2)</td>
<td>0.013</td>
<td>0.106</td>
<td>0.916</td>
<td>H2 not accepted</td>
</tr>
<tr>
<td>Level of Trust in Government (X3)</td>
<td>0.223</td>
<td>2.724</td>
<td>0.008</td>
<td>H3 be accepted</td>
</tr>
<tr>
<td>Tax Sanctions (X4)</td>
<td>0.076</td>
<td>1.086</td>
<td>0.280</td>
<td>H4 not accepted</td>
</tr>
<tr>
<td>F_hitung</td>
<td>11.075</td>
<td>0.000</td>
<td></td>
<td>H5 be accepted</td>
</tr>
<tr>
<td>R</td>
<td>0.564</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R Square</td>
<td>0.318</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted R Square</td>
<td>0.289</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Based on the multiple linear regression analysis table above, the regression model equation in this study is obtained as follows:

\[ Y = 3.162 + 0.225X_1 + 0.013X_2 + 0.223X_3 + 0.076X_4 \]

Based on table 6 above, it can be interpreted as follows:

a. The tax knowledge variable has a t-count of 3.349 with a significance of 0.001. The value of tcount 3.349 > ttable value of 1.985 and a significance of 0.001 < 0.05, so it can be concluded that partially the tax knowledge variable has a significant effect on taxpayer compliance in Kota Bangun District, Kutai Kartanegara Regency. Thus, H1 is accepted.

b. Taxpayer awareness variable has a t-count value of 0.116 with a significance of 0.906. The tcount value 0.116 < ttable value 1.985 and significance 0.906 > 0.05, so it can be concluded that partially the taxpayer awareness variable does not significantly influence taxpayer compliance in Kota Bangun District, Kutai Kartanegara Regency. Thus, H2 was rejected. This can happen because there are other variables that are not explained in more detail in this study.

c. The variable level of trust in the government has a tcount of 2.724 with a significance of 0.008. The value of tcount 2.724 > ttable value of 1.985 and a significance of 0.008 < 0.05, so it can be concluded that partially the variable level of trust in the government has a significant effect on taxpayer compliance in Kota Bangun District, Kutai Kartanegara Regency. Thus, H3 is accepted.

d. The tax sanction variable has a tcount of 1.086 with a significance of 0.280. The tcount value is 1.086 < ttable value 1.985 and the significance is 0.280 > 0.05, so it can be concluded that partially the tax sanction variable has no significant effect on taxpayer compliance in Kota Bangun District, Kutai Kartanegara Regency. Thus, H4 was rejected. This can happen because there are other variables that are not explained in more detail in this study.

Based on the data from the results of table 6 above, it can be seen that the Fcount value is 11.075 with a significance level of 0.000. This shows that the Fcount value of 11.075 is greater than the Ftable value of 2.467 and the significance level of 0.000 is less than 0.05. Thus, it can be concluded that H5 is accepted. This shows that tax knowledge, taxpayer awareness, level of trust in the government, and tax sanctions have a positive and significant effect simultaneously on the compliance of PBB P2 taxpayers in Kota Bangun District, Kutai Kartanegara Regency.

Based on table 6 above, it can be seen that the independent variable has a correlation coefficient (R) of 0.564 or 56.4%. This shows that the independent variable has a level of relationship that is in the category of correlation value 0.50 ≤ r ≤ 0.79, meaning that the level of the relationship of the independent variable can be said to be moderate positively to influence the dependent variable in this study.

Based on table 6 above, it can be seen that the coefficient of determination (R2) of the independent variable is 0.289 or 28.9%. Thus, it can be concluded that tax knowledge, taxpayer awareness, level of trust in the government, and tax sanctions affect the compliance of PBB P2 taxpayers in Kota Bangun District, Kutai Kartanegara Regency, only 28.9%. Meanwhile, the remaining 71.1% is influenced by other variables outside the model that were not examined in this study.
3.7 Discussion

3.7.1 The influence of tax knowledge on taxpayer compliance of PBB P2 in Kota Bangun District, Kutai Kartanegara Regency.

Based on the results of data processing in the t statistical test table, it can be seen that the previously proposed hypothesis was accepted. The positive effect indicates that taxation knowledge is directly proportional or unidirectional to taxpayer compliance, while the significant effect indicates that the P2 PBB taxpayer in Kota Bangun District, Kutai Kartanegara Regency has good tax knowledge to contribute to increasing compliance with paying PBB-P2.

This can happen because the P2 PBB Taxpayer in Kota Bangun District, Kutai Kartanegara Regency already knows the flow of registering to become a Taxpayer, the basis for imposition of taxes, matters relating to Tax Returns Payable (SPPT), tax rates that must be paid and how to pay it, how important the tax they pay will be used for the benefit of the government in building facilities and infrastructure for the progress of the country's development, to the applicable tax regulations and other knowledge.

This result means that the higher the level of tax knowledge possessed by the taxpayer, the higher the level of taxpayer compliance. The results of this study which state that taxation knowledge has a positive and significant effect on taxpayer compliance in paying PBB-P2 is in line with previous research conducted by Dewi [3], Setiono [11], and Ernawati & Afifi [4].

3.7.2 The influence of taxpayer awareness on taxpayer compliance with PBB P2 in Kota Bangun District, Kutai Kartanegara Regency.

Based on the results of data processing in the t statistical test table, it can be seen that the previously proposed hypothesis was rejected. The positive effect indicates that the taxpayer's awareness is directly proportional or unidirectional to the taxpayer's compliance, while the insignificant effect indicates that the low level of self-awareness of the PBB P2 taxpayer in Kota Bangun Subdistrict, Kutai Kartanegara Regency which results in non-compliance taxpayers to pay PBB P2.

This can happen because many PBB P2 taxpayers in Kota Bangun Subdistrict, Kutai Kartanegara Regency are still reluctant to pay taxes on time, even in arrears for years. Taxpayers assume that in making payments they often face difficulties due to long trips that even cost a lot of money. This condition underlies the low compliance of PBB P2 taxpayer in Kota Bangun District, Kutai Kartanegara Regency.

This result means that if the level of taxpayer awareness is still low, the level of tax compliance is also low. The results of this study are in line with the results of research by Harlina [7] and Dewi [3]. However, the results of this study contradict the results of research by Alam [1] that taxpayer awareness has a positive and significant effect on taxpayer compliance.

3.7.3 The influence of the level of trust in the government on the compliance of PBB P2 taxpayers in Kota Bangun District, Kutai Kartanegara Regency.

Based on the results of data processing in the t statistical test table, it can be seen that the previously proposed hypothesis was accepted. The positive effect indicates that the level of trust in the government is directly proportional to or unidirectional to taxpayer compliance, while the significant effect indicates that the P2 Taxpayers in Kota Bangun District, Kutai Kartanegara...
Regency pay taxes because they give confidence to the government to manage the amount of taxes paid.

This can happen because the P2 PBB Taxpayer in Kota Bangun District, Kutai Kartanegara Regency has the belief that the existing government and law are running well. Taxpayers pay taxes because they trust politicians and people's representatives who have carried out their functions and authorities properly. In addition, the belief that tax collection will be reallocated to the people is also a consideration for taxpayers to pay their obligations.

This result means that if the level of trust in the government provided by the taxpayer is higher, the higher the level of compliance of the P2 PBB Taxpayer for discipline to pay the tax payable. Thus, taxpayers would want the government not to commit acts that would disappoint the public and lose confidence in the government. The results of this study are in line with previous research conducted by Setiono [11] and Yuliansyah, et al. [16]. However, Wijayanti & Sasongko [14] state the results of the research are otherwise.

3.7.4 The effect of tax sanctions on pbb p2 taxpayer compliance in kota bangun district, kutai kartanegara regency.

Based on the results of data processing in the t statistical test table, it can be seen that the previously proposed hypothesis was rejected. The positive effect indicates that tax sanctions are directly proportional to or unidirectional to taxpayer compliance, while the insignificant effect indicates that tax sanctions are not burdensome and do not become a threat to taxpayers not to carry out their tax obligations.

This can happen because the P2 PBB Taxpayer in Kota Bangun Subdistrict, Kutai Kartanegara Regency feels that the tax sanctions applied are not burdensome and the application of these tax sanctions is deemed not carried out firmly by the tax officials. This is because taxpayers consider tax sanctions to be limited to formality and written regulations, so that there is no deterrent effect for taxpayers who commit violations or negligence.

This result means that the lower the tax sanctions given, the lower the level of tax compliance. This results in no tools or guarantees to increase tax revenue effectively. The results of this study are in line with the results of research conducted by Ernawati & Afifi [4], Yuliansyah et al. [16], and Harlina [7].

3.7.5 The Influence of Tax Knowledge, Taxpayer Awareness, Trust Level in Government, and Tax Sanctions on PBB P2 Taxpayer Compliance in Kota Bangun District, Kutai Kartanegara Regency.

Based on the results of data processing in the F statistical test table, it can be seen that the previously proposed hypothesis was accepted. This result means that if tax knowledge, taxpayer awareness, level of trust in the government, and tax sanctions are simultaneously increasing, the compliance of PBB P2 taxpayers in Kota Bangun District, Kutai Kartanegara Regency will increase as well.

4 Conclusion

Based on the results of the tests and discussions that have been carried out, several conclusions can be drawn as follows:
a. Tax Knowledge Variable (X1) has a positive and significant effect on PBB P2 Taxpayer compliance in Kota Bangun District, Kutai Kartanegara Regency. This result means that the higher the level of tax knowledge possessed by the taxpayer, the higher the level of taxpayer compliance.

b. Taxpayer Awareness (X2) has a positive and insignificant effect on the compliance of PBB P2 taxpayers in Kota Bangun District, Kutai Kartanegara Regency. This result means that if the level of taxpayer awareness is still low, the level of tax compliance is also low.

c. The level of trust in the government variable (X3) has a positive and significant effect on the compliance of PBB P2 taxpayers in Kota Bangun District, Kutai Kartanegara Regency. This result means that if the level of trust in the government provided by the taxpayer is higher, the higher the level of compliance of the P2 PBB Taxpayer for discipline to pay the tax payable.

d. Tax Sanctions Variable (X4) has a positive and insignificant effect on the compliance of PBB P2 taxpayers in Kota Bangun District, Kutai Kartanegara Regency. This result means that the lower the tax sanctions given, the lower the level of tax compliance.

e. Taxation Knowledge Variable (X1), Taxpayer Awareness (X2), Level of Trust in Government (X3), and Tax Sanctions (X4) together have a positive and significant effect on PBB P2 Taxpayer compliance in Kota Bangun District, Kutai Kartanegara Regency. This result means that if tax knowledge, taxpayer awareness, level of trust in the government, and tax sanctions are simultaneously increasing, the compliance of PBB P2 taxpayers in Kota Bangun District, Kutai Kartanegara Regency will increase as well.

References


The Determinants of Purchase Decision on Cinema by Intervening Variable of Attitude and Purchase Intention

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Abstract. Business cannot be separated from good service to make customer satisfaction. Thus, the objective of this study is to identify the effect of Service Quality, Social Influence, and social media, as well as Hedonic Value on Purchase Decision through Attitude and Purchase Intention on the Cinema XXI visitors of Big mall Samarinda. This study uses a quantitative approach using path analysis processed with SPSS and Structural Equation Modeling (SEM). The sample of 133 respondents was taken from society in Samarinda. The measurement scale uses a Likert scale with a score of 1 - 5. This study also tested the validity and reliability test, then carried out a further test of estimation and structural fit model test. The results are shown that social media and Hedonic Value having a significant impact on attitude and social media. Moreover, Attitude has a significant impact on Purchase Intention; Service Quality. Furthermore, Attitude and Purchase Intention has statistically significantly on Purchase Decision. However, Service Quality has no significant effect on Attitude; Service Quality, Social Influence. Additionally, Hedonic Value has no significant effect on Purchase Intention; Social Influence. Moreover, Hedonic Value has no significant effect on Purchase Decision.

Keywords: Service quality, social influence, social media, hedonic value, attitude, purchase intention, purchase decision, cinema XXI

1 Introduction

The development for entertainment with all facilities and infrastructure has increased quite rapidly. It is means entertainment services are currently a tool that is needed for every human being because this service is very useful on entertainment to avoid of fatigue experienced from the various activities carried out. Along with the increasing phenomenon of community activity, one of the most popular entertainments is watching movies. There are also various entertainment facilities that exist to entertain yourself, one of which is the cinema or sometimes it is also called the cinema. The problems are: 1) Does Service Quality have a significant effect on Attitude on Cinema XXI?; 2) Does Service Quality have a significant effect on Purchase Intention on Cinema XXI?; 3) Does Service Quality have a significant effect on Purchase Decision for Cinema XXI?; 4) Does Social Influence have a significant effect on Attitude for Cinema XXI?; 5) Does Social Influence have a significant effect on Purchase Intention for Cinema XXI?; 6) Does Social Influence have a significant effect on Purchase Decision for Cinema XXI?; 7) Does Social Media have a significant effect on Attitude for Cinema XXI?; 8) Does Social Media have a
significant effect on Purchase Intention for Cinema XXI?

9) Does Social Media have a significant effect on Purchase Decision for Cinema XXI?

10) Does Hedonic Value have a significant effect on Attitude on Cinema XXI?

11) Does Hedonic Value have a significant effect on Purchase Intention on Cinema XXI?

12) Does Hedonic Value have a significant effect on Purchase Decision on Cinema XXI?

13) Does Attitude have a significant effect on Purchase Intention on Cinema XXI?

14) Does Attitude have a significant effect on Purchase Decision on Cinema XXI?

15) Does Purchase Intention have a significant effect on Purchase Decision on Cinema XXI?

Kotler and Keller [2] Marketing is no longer a departmental firm that is burdened with a limited number of tasks, it is a company-wide job. It drives the company's vision, mission and strategic planning. Marketing includes decisions such as who the company wants as its customer, which needs to be met, what products and services to offer, what prices to charge, what communications to send and receive, what distribution channels to use and what partnerships to develop.

The service industry is currently a very large economic sector and its growth is very fast. This growth was not only caused by the growth of pre-existing services, but also by the emergence of new types of services, as a result of the demands and developments of the times. The rapid growth of the service business between countries is indicated by the increasing intensity of cross-border marketing and the occurrence of alliances of various service providers in the world. Personal characteristics that influence buyer's decisions include age and stage in the life cycle, occupation and economic circumstances, personality and self-concept as well as lifestyle and values [4].

Service quality refer to the degree of difference between customer expectations and their perceptions or desires. Service quality is defined as the difference between customer expectations and perceptions of the service offered. Crosby, et al. argued that trust and satisfaction as the indicator for the quality of service. Social influence is considered as how other people influence consumers' judgment and decision-making processes. Social influence is defined as a change in an individual's thoughts, feelings, attitudes or behavior that results from communication with other individuals or groups. The term social influence is used here to refer to this phenomenon, that is, extended family members from the reference group influence each other's behavior and experience social pressure to perform certain behaviors.

Attitude is the extent to which a person has favorable or unfavorable evaluations or assessments of the behavior in question. Attitudes represent feelings of liking or disliking someone towards an object. Attitudes as evaluations, emotional feelings, and tendencies of favorable (beneficial) and opposite (unfavorable) actions, and last a long time from a person to an object or idea [1]. Attitude includes observed consequences related to behavior. Attitudes are psychological emotions that are routed through consumer evaluations and, if positive, behavioral intentions tend to be more positive.

Purchase Intention is the tendency of a customer to buy a brand or take action related to a purchase as measured by the likelihood of making a purchase. Purchase interest is a stage that is carried out by consumers before planning to buy a product [1]. Schiffman and Kanuk state that buying interest is a model of a person's attitude towards a particular product, service or brand, in other words it can assess the likelihood of consumers buying a product, and the higher the buying interest, the higher the consumer's desire to buy a product.

The stage in the buyer's decision-making process where consumers actually buy [1]. A decision involves a choice between two or more alternative actions or behaviors, so that a purchase decision is an action taken by consumers in purchasing a product to get the desired
product through alternative choices regarding product choices, supplier choices, choices, brand, and timing options, leading to a buying decision.

2 Method

The data were collected from customers through a questionnaire. The structure of this study was developed using a measurement scale adopted from previous studies. All of them approved to use a Likert scale of 1-5 with criteria 1 = strongly disagree, 5 = strongly agree. Data were collected from customer cinema XXI in Samarinda through a questionnaire with 150 samples. The number of variables is 7 variables consisting of 4 exogenous variables, 2 intervening variables, and 1 endogenous variable with 30 indicators.

3 Results and Discussion

The test results of goodness of fit shown that six fit criteria and three criteria not fit from the total of nine criteria as shown in Table 1. This indicated that the model in this research was good and qualified to the hypothesis.

Table 1. The test results of Goodness of fit Overall model

<table>
<thead>
<tr>
<th>Goodness of Fit index</th>
<th>Cut of Value</th>
<th>Results</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-square</td>
<td>small</td>
<td>434.281</td>
<td>Not Fit</td>
</tr>
<tr>
<td>Significance Probability</td>
<td>≥ 0.05</td>
<td>0.060</td>
<td>Fit</td>
</tr>
<tr>
<td>RMR</td>
<td>≤ 0.10</td>
<td>0.075</td>
<td>Fit</td>
</tr>
<tr>
<td>RMSEA</td>
<td>≤ 0.08</td>
<td>0.029</td>
<td>Fit</td>
</tr>
<tr>
<td>GFI</td>
<td>≥ 0.90</td>
<td>0.820</td>
<td>Not fit</td>
</tr>
<tr>
<td>AGFI</td>
<td>≥ 0.90</td>
<td>0.785</td>
<td>Not fit</td>
</tr>
<tr>
<td>CMIN/ DF</td>
<td>≤ 2.00</td>
<td>1.114</td>
<td>Fit</td>
</tr>
<tr>
<td>TLI</td>
<td>≥ 0.90</td>
<td>0.962</td>
<td>Fit</td>
</tr>
<tr>
<td>CFI</td>
<td>≥ 0.95</td>
<td>0.966</td>
<td>Fit</td>
</tr>
</tbody>
</table>

The hypothesis test results using the AMOS program shown in Table 2. It is shown that the overall 15 hypotheses have different result. Eight variables are significant and seven variables are not significant.

Table 1. The hypothesis result test

<table>
<thead>
<tr>
<th>Variables</th>
<th>Standardised coefficient</th>
<th>C.R (Critical Ratio)</th>
<th>Probability</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQ → Att</td>
<td>0.107</td>
<td>1.121</td>
<td>0.262</td>
<td>Not Significant</td>
</tr>
<tr>
<td>SQ → PI</td>
<td>-0.069</td>
<td>-0.629</td>
<td>0.529</td>
<td>Not Significant</td>
</tr>
<tr>
<td>SQ → PD</td>
<td>-0.194</td>
<td>-2.089</td>
<td>0.037</td>
<td>Significant</td>
</tr>
<tr>
<td>SI → Att</td>
<td>0.215</td>
<td>2.076</td>
<td>0.038</td>
<td>Significant</td>
</tr>
<tr>
<td>SI → PI</td>
<td>-0.057</td>
<td>-0.533</td>
<td>0.594</td>
<td>Not Significant</td>
</tr>
<tr>
<td>SI → PD</td>
<td>0.016</td>
<td>0.196</td>
<td>0.845</td>
<td>Not Significant</td>
</tr>
<tr>
<td>SM → Att</td>
<td>0.282</td>
<td>2.076</td>
<td>0.045</td>
<td>Significant</td>
</tr>
<tr>
<td>SM → PI</td>
<td>0.376</td>
<td>2.161</td>
<td>0.031</td>
<td>Significant</td>
</tr>
</tbody>
</table>
The hypothesis test using AMOS, the analysis results part as shown in Figure 1. Based on the results of the calculation of the path coefficient between Service Quality and Purchase Intention, it shows an insignificant influence with a negative direction of -0.069, which means that the level of closeness or strength of the relationship between Service Quality and Purchase Intention variables is 7%. Based on the statistical test results, the value of the Critical Ratio (CR) variable of Service Quality to Purc...
The biggest loading factor value of the Service Quality variable is the Reliability indicator with a value or weight of 0.728 greater than the error term value, namely 0.5, which means that the Service Quality variable is reflected in the Reliability indicator. It shows that the Reliability indicator has a level of truth as a measure of the Service Quality variable of 73% and the affected variable is the Purchase Intention variable which is reflected in the Will Buy indicator with a value or weight of 0.754 greater than the error term value of 0.5. It shows that the Will Buy indicator has a level of truth as a measure of the Purchase Intention variable by 75%. Service Quality variable which is reflected in the Reliability indicator does not have a significant effect on the Purchase Intention variable which is reflected in the Will Buy indicator. This means that the quality of service for employee consistency in providing services to Cinema XXI visitors cannot affect visitors' willingness to watch at Cinema XXI.

Based on the results of the calculation of the path coefficient between Service Quality and Purchase Decision, it shows a significant effect with a negative direction of -0.194, which means that the level of closeness or strength of the relationship between Service Quality and Purchase Decision variables is 19%. Based on the results of the statistical test, the value of the Critical Ratio (CR) variable of Service Quality to Purchase Intention is -2.089, which is greater than the critical value of ± 1.96 which is determined from the t table if a study uses more than 100 respondents. Significant results can also be seen from the probability value (p-value) of 0.037 which is smaller than the error rate (α) which is set at 5% and 0.05. This shows that Service Quality has a significant negative effect on Purchase Decision for Cinema XXI. This means that the higher the quality of service provided by Cinema XXI, the less impact it will have on the decision to watch Cinema XXI.

The biggest loading factor value of the Service Quality variable is the Reliability indicator with a value or weight of 0.728 greater than the error term value, namely 0.5, which means that the Service Quality variable is reflected in the Reliability indicator. It shows that the Reliability indicator has a level of truth as a measure of the Service Quality variable by 73% and the affected variable is the Purchase Decision variable which is reflected in the Post Purchase Behavior indicator with a value or weight of 0.767 greater than the error term value, namely 0.5. It shows that the Post Purchase Behavior indicator has a level of truth as a measure of the Purchase Decision variable by 77%. Service Quality variable which is reflected in the Reliability indicator has a significant effect on the Purchase Decision variable which is reflected in the Post Purchase Behavior indicator. This means that the quality of service for the consistency of employees in providing services to Cinema XXI visitors can influence a person's decision to be able to watch again at Cinema XXI.

Social Influence on Attitude shows a significant influence with a positive direction of 0.215, which means that the level of closeness or the relationship between the Social Influence variable on Attitude is 12%. Based on the results of the statistical test the value of the Critical Ratio (CR) of the Social Influence variable on Attitude is 2.076, which is greater than the critical value of ± 1.96 which is determined from the t table if a study uses more than 100 respondents. Significant results can also be seen from the probability value (p-value) of 0.038 which is greater than the error rate (α) which is set at 5% and 0.05. This shows that Social Influence has a significant positive effect on the Attitude at XXI Cinemas.

Social influence on Purchase Intention shows an insignificant influence with a negative direction of -0.057, which means that the level of closeness or strength of the relationship between the Social Influence variable on Purchase Intention is 6%. Based on the results of the statistical test the value of the Critical Ratio (CR) of the Social Influence variable on Purchase Intention is -0.533 smaller than the critical value ± 1.96 which is determined from the t table if uses more than 100 respondents. The insignificant results can also be seen from the probability
value. (p-value) of 0.594 which is greater than the error rate (α) which is set at 5% and 0.05. This shows that Social Influence has a negative and insignificant effect on Purchase Intention for Cinema XXI. It is means that someone's social influence because they often consult friends or family has little influence on someone to raise the intention to be willing to watch Cinema XXI.

Based on the results of the calculation of the path coefficient between social influence on Purchase Decision, it shows an insignificant influence with a positive direction of 0.016, which means that the level of closeness or strength of the relationship between the Social Influence variable on Purchase Decision is 2%. Based on the results of the statistical test, the Critical Ratio (CR) value of the Social Influence variable on Purchase Decision is 0.196 smaller than the critical value ± 1.96 which is determined from the t table if a study uses more than 100 respondents. The insignificant results can also be seen from the probability value (p-value) of 0.845 which is greater than the error rate (α) which is set at 5% and 0.05. This shows that Social Influence has a positive and insignificant effect on the Purchase Decision variable for Cinema XXI visitors.

Strength of the relationship between the Social Media variable to Attitude is 28%. Based on the results of the statistical test, the value of the Critical Ratio (CR) of the Social Media variable to the Attitude variable is 2.076, greater than the critical value ± 1.96, which is determined from the t table if a study uses the number of respondents more than 100. Significant results can also be seen from the probability value (p-value) of 0.045 which is greater than the error rate (α) which is determined at 5% and 0.05. This shows that the Social Media variable has a significant positive effect on the Attitude variable.

Based on the results of the calculation of the path coefficient between social media and Purchase Intention, it shows a significant influence with a positive direction of 0.376, which means the level of closeness or strength of the relationship between Social Media variables on Purchase Intention is 38%. Based on the results of the statistical test, the Social Media variable's Critical Ratio (CR) value to the Purchase Intention variable is 2.161, which is greater than the critical value ± 1.96. which is determined from the t table if a study uses the number of respondents more than 100. Significant results can also be seen from the probability value (p-value) of 0.031 which is greater than the error rate (α) which is determined at 5% and 0.05. This shows that the Social Media variable has a significant positive effect on the Purchase Intention variable.

Based on the results of the calculation of the path coefficient between social media and Purchase Decision, it shows an insignificant influence with a negative direction of -0.025, which means the level of closeness or strength of the relationship between Social Media variables to Purchase Decision is 2%. Based on the results of the statistical test the value of the Critical Ratio (CR) of the Social Media variable to the Purchase Decision variable is -0.190, smaller than the critical value of ± 1.96. which is determined from the t table if a study uses the number of respondents more than 100. The insignificant results can also be seen from the probability value (p-value) of 0.849 which is greater than the error rate (α) which is determined at 5% and 0.05. This shows that the Social Media variable has a negative and insignificant effect on the Purchase Decision.

The results of the calculation of the path coefficient between the Hedonic Value on Attitude, it shows a significant effect with a positive direction of 0.428, which means that the level of closeness or strength of the relationship between the Hedonic Value and Attitude variables is 49%. Based on the statistical test results, the value of the Critical Ratio (CR) of the Hedonic Value variable to the Attitude variable is 3.311, which is greater than the critical value of ± 1.96. which is determined from the t table if a study uses the number of respondents more than
The insignificant results can also be seen from the probability value (p-value) of \( * * * (0.000) \) which is smaller than the error rate (\( \alpha \)) which is determined by 5% and 0.05. This shows that the Hedonic Value variable has a significant positive effect on the Attitude variable. It means that the visitor's decision to watch Cinema XXI is influenced by the hedonic. This confirms the theory put forward by Lombardi et. al. [3] which states that there is a significant relationship between the Hedonic Value variable and the Attitude variable.

Based on the results of the calculation of the path coefficient between Hedonic Value and Purchase Decision, it shows an insignificant influence with a positive direction of 0.102, which means the level of closeness or strength of the relationship between the Hedonic Value variable to Purchase Intention is 1%. Based on the statistical test results, the value of the Critical Ratio (CR) of the Hedonic Value variable on the Purchase Decision variable is 0.729, smaller than the critical value of \( \pm 1.96 \) which is determined from the t table if a study uses the number of respondents more than 100. The insignificant results can also be seen from the probability value (p-value) of 0.466 which is greater than the error rate (\( \alpha \)) which is determined at 5% and 0.05. This shows that the Hedonic Value variable has a positive and insignificant effect on the Purchase Intention variable. This means that a respondent's interest in visiting Cinema XXI is not influenced by the respondent's hedonic value.

Based on the results of the calculation of the path coefficient between Hedonic Value and Purchase Decision, it shows an insignificant effect in a negative direction with a value of -0.099, which means the level of closeness or strength of the relationship between the Hedonic Value variable to Purchase Decision is 1%. Based on the results of the statistical test, the value of the Critical Ratio (CR) variable Hedonic Value to the Purchase Decision variable is -0.927 smaller than the critical value of \( \pm 1.96 \) which is determined from the t table if a study uses more than 100 respondents. The insignificant results can also be seen from the value probability (p-value) of 0.354 which is greater than the error rate (\( \alpha \)) which is set at 5% and 0.05. This shows that Hedonic Value has a negative and insignificant effect on Purchase Decision for Cinema XXI. This means that the respondent's decision to watch Cinema XXI is not influenced by the hedonic value of visiting Cinema XXI.

Based on the results of the calculation of the path coefficient between Attitude and Purchase Intention, it shows a significant effect with a positive direction of 0.767, which means that the level of closeness or strength of the relationship between Attitude and Purchase Intention variables is 77%. Based on the statistical test results, the value of the Critical Ratio (CR) of the Attitude variable against the Purchase Intention variable is 2.349, which is greater than the critical value of \( \pm 1.96 \) which is determined from the t table if a study uses the number of respondents more than 100. Significant results can also be seen from the probability value (p-value) of 0.019 which is smaller than the error rate (\( \alpha \)) which is determined at 5% and 0.05. This shows that the Attitude variable has a significant positive effect on the Purchase Intention variable. Which means that someone's interest in visiting Cinema XXI, is influenced by the attitude of visitors watching at Cinema XXI.

The loading factor value of the Attitude variable is the Better Choice indicator with a value or weight of 0.711 which is greater than the error term, namely 0.5, which means that the Attitude variable is reflected in the Better Choice indicator. It shows that the Better Choice indicator has a level of truth as a measure of the Attitude variable of 71%, and the variable affected is the Purchase Intention variable which is reflected in the Will Buy indicator with a value or weight of 0.754 greater than the error term value of 0.5. It shows that the Will Buy indicator has a level of truth as a measure of the Purchase Intention variable by 75%.

Based on the calculation of the path coefficient between Attitude and Purchase Decision, it shows a significant effect in a positive direction with a coefficient value of 0.685, which means
that the level of closeness or strength of the relationship between Attitude and Purchase Decision variables is 69%. Based on the statistical test results, the value of the Critical Ratio (CR) variable Attitude to Purchase Decision is 2.031, greater than the critical value of ± 1.96 and a significant probability (p) of 0.042 is obtained which is smaller than the error rate (α) which is determined at 0.05. This shows that Attitude has a significant positive effect on Purchase Decision for visitors to Cinema XXI. This means that the higher one's interest in watching Cinema XXI, it will affect one's decision to watch Cinema XXI.

The calculation of the path coefficient between Purchase Intention and Purchase Decision, it shows a significant effect with a positive direction of 0.496, which means that the level of closeness or strength of the relationship between Purchase Intention and Purchase Decision variables is 50%. Based on the statistical test results, the Critical Ratio (CR) value of the Purchase Intention variable to the Purchase Decision variable is 2,365, greater than the critical value of ± 1.96. Significant results can also be seen from the probability value (p-value) of 0.018 which is smaller than the error rate (α) which is set at 5% and 0.05. This shows that the Purchase Intention variable has a significant positive effect on the Purchase Decision variable. Which means that a person's decision to visit Cinema XXI, is influenced by one's interest in visiting Cinema XXI.

References

The Mediating Role of Purchase Intention Toward Purchase Decision of Xiaomi Mobile

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Abstract. The purpose of this study is to analyze and prove the effect of Perceived Value on Purchase Intention on Xiaomi Mobile. The data were obtained from 145 Xiaomi mobile users in Indonesia. This research uses the sampling technique of Accidental Sampling. Data from respondents were tabulated and tested using statistical methods. Data has been tested for their level of validity and reliability. Results of the test instruments of the research questions were declared valid and reliable. Based on the results that have been done, it can be concluded that Perceived Value, country of origin, product quality, have a significant effect on Purchase Intention on Xiaomi Mobile. Meanwhile, price and product quality have no significant effect on purchase intention on Xiaomi Mobile. Perceived value has no significant impact on the purchase decision on Xiaomi mobile. Price, country of origin, and product quality have the significant impact on purchase decision on Xiaomi mobile.

Keywords: Perceived value, price, brand image, country of origin, purchase intention

1 Introduction

The development of digital technology is making lifestyle changes. Communication tools are essential such as mobile phone. Indonesia Smartphone users have increased every year. Several cellphone brands competing in this business in Indonesia include: Samsung, Apple, Huawei, Xiaomi, Lenovo and many more. This situation causes intense competition among competitors in the telecommunications sector. The Xiaomi brand has been known to the Chinese public since 2011, began to be known to the Indonesian public in 2013 and began to be attracted to the market in 2014. Xiaomi phones use an Android operating system that users are familiar with with various features. Xiaomi is sold at low prices and luxurious specifications thus, that it becomes a consumer attraction.

The problems are: 1) Does Perceived Value have a significant effect on Purchase Intention on Xiaomi mobile phone? 2) Does Perceived Value have a significant effect on Purchase Intention on Xiaomi mobile 3) Does Brand Image have a significant effect on Purchase Intention on Xiaomi mobile? 4) Does the Country of Origin have a significant effect on Purchase Intention on Xiaomi mobile phone? 5) Does Product Quality have a significant effect on Purchase Intention on Xiaomi mobile? 6) Does Perceived Value have a significant effect on Purchase Decision on Xiaomi mobile phone? 7) Does Price have a significant effect on Purchase Decision on Xiaomi mobile phone? 8) Does Brand Image have a significant effect on Purchase Decision on Xiaomi mobile?
on Xiaomi mobile phone? 9) Does the Country of Origin have a significant effect on Purchase Decision on Xiaomi mobile phone? 10) Does Product Quality have a significant effect on Purchase Decision on Xiaomi Brand mobile phone? 11) Does Purchase Intention have a significant effect on Purchase Decision on Xiaomi mobile phone?

2 Theoretical Background

Dodds et al. [1] suggest that perceived value relate to the perception of customers on value in the trade off among the perceived quality which is relate to the perceived sacrifice from the paying of price. Zeithaml [6] stated that perceived value describes the utilities of the product when the customer has benefit for paying of the cost. Kotler [2], price refer to advantage of product or service by the customers when the pay of money. Swastha & Irawan describe of price is the amount of money to receive some products or when the customer has service. Price refer to the customer to get some product or service have to pay with amount of money. Kotler and Keller [4] define brand image as the reflection of the product by the customer. It relates to the memories by the customer on product. Then, country-of-origin relate to the where the product come from and brand of product. Moreover, country of origin as describe the product on the country as image before the customer buy or use some product. Kotler and Keller [4] added that product quality refer to facilities of the product including of the feature and characteristic as the capabilities of expectation by the customers.

Purchase Intention relate to the implementation of purchasing decisions from customers related to purchasing decisions. Schiffman and Kanuk [5] stated that purchase intention as the motivation of customer to get something to buy. Kotler and Armstrong [3] argue that the consumer buying decision process is a systematic way of looking at how a consumer makes the decision to purchase a product (any product) in a product category. Zaichowsky understands involvement as “A person’s perceived relevance of the object based on inherent needs, values and interests.

3 Methods

Data were collected from the accidental sampling method with a sample size of 168 respondents. Spread a list of questions in the form of statements with a Likert scale. Sugiyono (2010: 132) with five levels of answers, which is a scale of ordinal types from 1 (one) which shows strongly disagree to 5 (five) which indicates strongly agree.

4 Results and Discussion

Based on the results of statistical tests using AMOS software, the p-value or probability value between the Perceived Value variable and the Purchase Intention variable is 0.009, which means it is smaller than the specified error rate of 0.050. Or the Critical Ratio (C.R.) value is greater than 1.96 which is determined from the t table if the research data uses a number of respondents more than 100. Critical Ratio (C.R.) variable Perceived Value to the Purchase
Intention variable is 2,600 it indicates the value of C.R. greater than the critical value is 1.96. This shows that the Perceived Value has a significant positive effect on the Purchase Intention. The strongest of Perceived Value indicator is Quality with a Loading Factor value of 0.643, while the Purchase Intention variable, has an indicator of referential interest with loading factor is 0.792, greater than the error term value of 0.5. The Perceived Value has a significant positive effect on the Purchase Intention. It is reflected in the Reference Interest indicator for Xiaomi mobile phone users. This means that the value of a person's profit will arise because of the qualities possessed by users of Xiaomi mobile phone. Thus, respondents will look for references about Xiaomi mobile that appear because of a sense of intention to buy using Xiaomi mobile. Conceptual framework showed on Figure 1.

The result of the coefficient between Price and Purchase Intention shows a positive direction with a value of 0.555 it means the level of closeness of the relationship between the Brand Image and Purchase Intention. Based on the results p-value or probability value between the Price variable and the Purchase Intention variable is 0.555, which means that it is greater than the specified error rate of 0.050. Or the Critical Ratio (C.R.) value is less than 1.96 which is determined from the t table if the research data uses more than 100 respondents. The Critical Ratio (C.R.) of the Brand Image variable to the Purchase Intention variable is -0.591 which means the value of C.R. smaller than the critical value which is equal to 1.96. This shows that the Price variable has a positive and insignificant effect on the Purchase Intention variable.

The indicator the strongest Price variable is the reasonable indicator with a loading factor value of 0.823, greater than the error term, which is 0.5. It indicates that r as appropriate a measure of Price. While the Purchase Intention, has an indicator of referential interest as a reflection of the Purchase Intention variable, this is because the Referential Interest indicator has the greatest Loading Factor value than the other indicators, which is 0.792, greater than the error term value of 0.5.

Fig. 1. Conceptual framework
The Price variable which is reflected in the Reasonable indicator does not have a significant effect on the Purchase Intention. It is reflected in the Reference Interest indicator for Xiaomi mobile phone users. This means that user judges the price level of Xiaomi mobile phone because of have good price compared to other brands. It means that the price level has little influence on user responses when choosing Xiaomi mobile is the right choice.

Based on the results, the p-value or probability value between the Brand Image variable and the Purchase Intention variable is 0.048, it is smaller than the specified error rate of 0.050. Or the Critical Ratio (C.R.) value is greater than 1.96 which is determined from the t table if the research data uses more than 100 respondents. Critical Ratio (C.R.) variable Perceived Value to the Purchase Intention variable is -1.974 which means the value of C.R. greater than the critical value which is equal to 1.96. This shows that the Perceived Value has a significant positive effect on the Purchase Intention.

The strongest status of the Brand Image variable is the indicator with a Loading Factor value of 0.954, greater than the error term, which is 0.5. While the affected variable, namely the Purchase Intention variable, has an indicator of Referential Interest as a reflection of the Purchase Intention variable, because the Referential Interest indicator has the greatest Loading Factor value than the other indicators, which is 0.792, greater than the error term value of 0.5.

The Brand Image is reflected in the Reference Interest indicator has a significant effect on the Purchase Intention. This means that the value of the brand image will emerge because the Xiaomi mobile is a good brand. User respondents know that the Xiaomi mobile is not with a good image but with sufficient quality, the capacity needed at a price that is not too expensive. The user will look for references about the Xiaomi mobile then a sense of intention to buy Xiaomi mobile.

Based on the results the p-value or probability value between the Country-of-Origin variable and the Purchase Intention variable is 0.047 which means it is smaller than the specified error rate of 0.050. Or the Critical Ratio (C.R.) value is greater than 1.96 which is determined from the t table if the research data uses more than 100 respondents. The Critical Ratio (C.R.) of the Country of Origin variable to the Purchase Intention variable is 1.990 which means the value of C.R. greater than the critical value which is equal to 1.96. Country of Origin variable has a significant positive effect on the Purchase Intention variable.

The strongest indicator from the Country of Origin is the Excellent indicator with a Loading Factor value of 0.776, greater than the error term, which is 0.5. Excellent indicator has a level of truth as a measure of the Country-of-Origin variable, it means that the Country Of Origin is reflected in the Excellent indicator. While the affected variable, namely the Purchase Intention variable, has an indicator of Referential Interest as a reflection of the Purchase Intention variable, this is because the Referential Interest indicator has the greatest Loading Factor value than the other indicators, which is 0.792, greater than the error term value of 0.5. Country of Origin has a significant effect on the Purchase Intention. It means customer perception that the country of origin for the production of Xiaomi mobile is a good product.

Product Quality and Purchase Intention shows a positive direction with a value of 0.360 which means the level of closeness of the relationship between the Product Quality variable to Purchase Intention. Based on the results, the p-value or probability value between the Product Quality variable and the Purchase Intention variable is 0.360, which means it is greater than the specified error rate of 0.050. Or the Critical Ratio (C.R.) value is less than 1.96 which is determined from the t table if the research data uses more than 100 respondents. The Critical Ratio (C.R.) of the Product Quality variable to the Purchase Intention variable is 0.915 which means the value of C.R. smaller than the critical value which is equal to 1.96. This shows that the Price variable has no significant effect on the Purchase Intention variable.
The strongest indicator is Product Quality with a loading factor value of 0.812, greater than the error term, which is 0.5. While the affected variable, namely the Purchase Intention variable, has an indicator of Referential Interest as a reflection of the Purchase Intention variable, this is because the Referential Interest indicator has the greatest Loading Factor value than the other indicators, which is 0.792, greater than the error term value of 0.5. The Product Quality variable which is reflected in the Features indicator has no significant effect on the Purchase Intention variable which is reflected in the Reference Interest indicator for Xiaomi mobile. This means the quality of Xiaomi mobile products because of good features compared to other product. This indicates the company's image has little effect on one's satisfaction to the customer.

The relationship between Perceived Value and Purchase decision is a positive with a value of 0.571, it is greater than the specified error rate of 0.050. Or the Critical Ratio (C.R.) value is less than 1.96 which is determined from the t table if the research data uses more than 100 respondents. Critical Ratio (C.R.) variable Perceived Value to the Purchase Decision variable is -0.566 which means the value of C.R. smaller than the critical value which is equal to 1.96. This shows that the perceived value variable has a positive and insignificant effect on the Purchase decision variable.

The indicator that has the strongest status from the Perceived Value variable is the Quality Functional indicator with a Loading Factor value of 0.643, greater than the error term, which is 0.5. This shows that the Quality Functional indicator has a level of truth as a measure of the Perceived Value variable, which means that the Perceived Value variable is reflected in the Quality Functional indicator. While the variable that is influenced, namely the Purchase Decision variable has a Product Quality indicator as a reflection of the Purchase Decision variable, this is because the Product Quality indicator has the largest Loading Factor value than the other indicators, which is 0.540, which is greater than the error term value of 0.5. It indicates that perceived value will be influence to the customer on purchase decision.

The parameter coefficient between Price and Purchase decision is a positive with P value of 0.452. It is greater than the specified error rate of 0.050. The Critical Ratio (C.R.) of the Price variable to the Purchase decision variable is 0.753 which means the value of C.R. smaller than the critical value which is equal to 1.96. This shows that the Price variable has no significant positive effect on the Purchase Decision variable.

The indicator that has the strongest status of the Price variable is the Reasonable indicator with a Loading Factor value of 0.823, greater than the error term, which is 0.5. This shows that the Reasonable indicator has a level of truth as a measure of the Price variable, which means that the Price variable is reflected in the Reasonable indicator. While the variable that is influenced, namely the Purchase Decision variable has a Product Quality indicator as a reflection of the Purchase Decision variable, this is because the Product Quality indicator has the largest Loading Factor value than the other indicators, which is 0.540, which is greater than the error term value of 0.5.

Brand Image variable and the Purchase Intention variable has p value is 0.045, it is smaller than the specified error rate of 0.050. Or the Critical Ratio (C.R.) value is greater than 1.96 which is determined from the t table if the research data uses the number of respondents more than 100. Critical Ratio (C.R.) variable Perceived value to the purchase intention variable is 2.006 which means the value of C.R. greater than the critical value which is equal to 1.96. It is shown the brand Image has a significant positive effect on the Purchase decision.

The indicator that has the strongest status of the Brand Image variable is the Nice indicator with a Loading Factor value of 0.954, greater than the error term, which is 0.5. This shows that the Nice indicator has a level of truth as a measure of the Brand Image variable by 75%, which means that the brand Image variable is reflected in the Nice indicator. While the variable that is
influenced, namely the Purchase Decision variable, has a Product selection indicator as a reflection of the Purchase Decision variable, this is because the Product Selection indicator has the largest Loading Factor value than the other indicators, which is 0.540, which is greater than the error term value of 0.5.

Based on the results, the p-value between the Country of Origin and the Purchase Decision is 0.036 and it is smaller than the specified error rate of 0.050. Or the Critical Ratio (C.R.) value is greater than 1.96 which is determined from the t table if the research data uses the number of respondents more than 100. Critical Ratio (C.R.) of the Country-of-Origin variable to the Purchase Decision variable is -2.102 which means the value of C.R. greater than the critical value which is equal to 1.96. This shows that the country-of-origin variable has a significant positive effect on the Purchase Decision variable.

The indicator strongest status from the Country-of-Origin variable is the Excellent indicator with a Loading Factor value of 0.776, greater than the error term, which is 0.5. This shows that the excellent indicator has a level of truth as a measure of the Country-of-Origin variable. Country Of Origin variable is reflected in the Excellent indicator. While the variable that is influenced, namely the Purchase Decision variable has a Product Quality indicator as a reflection of the Purchase Decision variable, this is because the Product Quality indicator has the largest Loading Factor value than the other indicators, which is 0.540, which is greater than the error term value of 0.5. The country-of-origin variable which is reflected in the excellent indicator has a significant positive effect on the Purchase decision as reflected in the Product selection indicator for Xiaomi mobile.

The indicator strongest status from the Purchase Decision variable is the referential interest indicator as a reflection of the Purchase Decision variable, this is because the referential interest indicator has the greatest Loading Factor value than the other indicators, which is 0.792, greater than the error term value of 0.5. While the variable that is influenced, namely the Purchase Decision variable has a Product Quality indicator as a reflection of the Purchase Decision variable, this is because the Product Quality indicator has the largest Loading Factor value than the other indicators, which is 0.540, which is greater than the error term value of 0.5.
The Purchase Intention variable which is reflected in the Referential Interest indicator has a significant positive effect on the Purchase Decision variable which is reflected in the Product Selection indicator for Xiaomi brand cellphone users in Samarinda city. This means that an interest in buying someone that arises because of a sense of someone looking for references about Xiaomi mobile phone, will further increase one's strong intention to generate interest in buying in the future using Xiaomi mobile phone and user responses to choosing Xiaomi mobile are the right choice. In other words, the higher the interest in buying someone by looking for references about the Xiaomi mobile, the greater the influence of one's buying decision.

The results of this study indicate that the indirect effect of the variable Perceived Value on Purchase Decision through Purchase Intention has a coefficient value of 0.264. When compared with the direct effect between the Perceived Value variable on Purchase Intention with the relationship path coefficient value of 0.093, the indirect effect value is greater than the direct effect. This means that the value of the profits that exist in the Xiaomi mobile phone has a greater influence on the purchase decision if it is through the intention to buy first, compared to the direct effect on the purchase decision.

The results of this study indicate that the indirect effect of the variable Price on Purchase Decision through Purchase Intention has a coefficient value of 0.036. When compared with the direct influence between the variable Price on Purchase Intention with the path coefficient value of 0.094, the value of the indirect effect is greater than the direct effect. This means that the price value that exists on Xiaomi mobile has a greater direct influence on purchasing decisions on Xiaomi mobile in the community compared to the effect on purchasing decisions if through the intention of buying first.

The results of this study indicate that the indirect effect of the Brand Image variable on Purchase Decision through Purchase Intention has a coefficient value of 0.089. When compared with the direct effect between the Brand Image variable on Purchase Intention with a relationship path coefficient value of 0.296, the value of the indirect effect is greater than the direct effect. This means that the value of the brand image on Xiaomi mobile has a greater direct effect on decisions.

The results of this study indicate that the indirect effect of the Country Of Origin variable on Purchase Decision through Purchase Intention has a coefficient value of -0.096. When compared with the direct effect between the Country of Origin variable on Purchase Intention with the path coefficient value of -0.297, the value of the indirect effect is greater than the direct effect. This means that the price value that exists on Xiaomi mobile has a greater direct influence on purchasing decisions on Xiaomi mobile in the community.

The results of this study indicate that the indirect effect of the Product Quality variable on Purchase Decision through Purchase Intention has a coefficient value of 0.204. When compared with the direct influence between the Perceived Value variable on Purchase Intention with the relationship path coefficient value of 0.113, the value of the indirect effect is greater when compared to the direct effect. This means that the product quality on Xiaomi mobile has a greater influence on purchasing decisions if through the intention to buy first, rather than its direct influence on purchasing decisions on Xiaomi mobile.

The total effect of the Perceived Value variable on Purchase Decision through Purchase Intention was 5.28 and previously 0.264 which was obtained from the sum of the direct effect value of -0.093 with an indirect effect value of 0.358. When viewed in terms of the total effect obtained, the value of the indirect effect is greater than the value of the direct effect. This means that buying interest in Xiaomi mobile users will be increase.

Furthermore, the total influence of the price variable on Purchase Decision through Purchase Intention is 5.26 and previously 0.036 which is obtained from the sum of the direct
effect value which is 0.094 with an indirect effect value of 0.058. When viewed in terms of the total effect obtained, the value of the direct effect is greater than the value of the indirect effect. This means that buying interest in Xiaomi mobile users is greatly influenced by the fairness of the price.

The magnitude of the total influence of the Brand Image variable on Purchase Decision through Purchase Intention is listed in table 5.26 and previously 0.089 which is obtained from the sum of the direct effect value, which is 0.296 with an indirect effect value of 0.207. When viewed in terms of the total effect obtained, the value of the direct effect is greater than the value of the indirect effect. This means that buying interest in Xiaomi mobile users is greatly influenced by the fairness of the price.

The total influence of the Country-of-Origin variable on Purchase Decision through Purchase Intention was 5.26 and previously 0.096 which was obtained from the sum of the direct effect value which was -0.297 with an indirect effect value of 0.201. When viewed in terms of the total effect obtained, the value of the indirect effect is greater than the value of the direct effect. This means that buying interest in Xiaomi mobile is greatly influenced by how well the Xiaomi mobile product is in the country of production.

The total influence of the Product Quality variable on Purchase Decision through Purchase intention was 5.26 and previously it was 0.204 which was obtained from the sum of the direct effect value which was 0.113 with an indirect effect value of 0.091. When viewed in terms of the total effect obtained, the value of the indirect effect is greater than the value of the direct effect. This means that buying interest in Xiaomi mobile users is greatly influenced by the features offered.

References

Integrating ICT Learning Model and the Use of AI to Enhance Students’ Writing Quality

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Abstract. ICT literacy is essential since digital tools are used almost in every aspect of life, especially in this era where people count on the tools to make them stay at home but still interconnected with people. These tools are various, yet not all students have used them to support their academic needs. This study is aimed at improving students’ writing quality by integrating ICT learning model and the use of AI in the writing class. A learning model usually implemented for teaching ICT constructed by UNESCO is employed. It is also completed by the last step which is proofreading. The proofreading step is done by using the help of artificial intelligence. The method employed is Research and Development. The study is started by identifying instructional goals, conducting a goal analysis, identifying entry behavior characteristics, formulating performance objective, developing criteria-referenced test items, developing instructional strategy, developing and selecting instructional materials, designing and conducting formative evaluation, and doing revision. It is found that the learning model of ICT and the use of AI significantly help the students enhance their essay writing quality, which can be seen from the result of their writing score in the formative tests. It can be seen that students’ writing skill is improved by the help of ICT learning model and the use of AI.

Keywords: ICT learning model, Essay Writing, Artificial Intelligence

1 Introduction

One of the main functions of writing pedagogy in an academic context is to facilitate students to be able to produce written works through the acquisition of contemporary practices in the domain of academic literacy [1], [2]. To improve the quality of writing produced by students, it is necessary to think of effective ways to teach them how to write well. This is very important because it has been proven that there is a very strong relationship between teaching methods in class and the quality of students’ writing [3]. Some lecturers who teach writing in the observations of researchers, still provide writing theories in class to teach writing English essays instead of asking students to keep practicing writing.

Giving writing theory to students was not directly proportional to the expected results. Students still have difficulty getting ideas to put into writing. When they get ideas to be written as material, the writing they write is not critical, whereas in 21st century learning, students are required to be able to think critically and creatively, be able to collaborate, and communicate their work [1]. Writing well and critically is indeed not easy because writing is a high-level skill that can continue to develop through the interaction between student's skills and cognitive abilities, instructional contexts, and the demands of writing tasks [4]. Cognitive abilities,
instructional context, and writing assignments must be considered carefully by lecturers in higher education to help students have good and critical writing skills.

Good and critical writing skills are needed in order to form graduates who have high competitiveness. This is in accordance with the curriculum run in the English Language Education study program, at a university in West Java, Indonesia. The curriculum used is the Indonesian National Qualifications Framework (KKNI) curriculum, one of which focuses on the formation of highly competitive alumni [5]. In the KKNI curriculum, the formulation of a course syllabus is based on the competencies that must be achieved by students which are synchronized with the profiles of graduates from the study program [6]. In the English Language Education where researchers conducted the research, the alumni profiles include: 1) educators in English; 2) textbook author; 3) developer of assessment tools; 4) developer of English learning programs; 5) developer of English learning programs for children; 6) translators; 7) English researchers; and 8) English service providers.

When viewed from the alumni profile, writing skills are indispensable for the formation of highly competitive alumni. Therefore, writing is taught from the first semester to the sixth, which begins with a discussion of how to write correct sentences to the level of writing various types of essays and academic writing. In this study, researchers focused on essay writing lectures. The aim of the essay writing course is to gain knowledge, insight, and writing skills. However, the course objectives were not easy to achieve. In the lecture process, many problems were found. The problems include difficulty finding ideas, difficulty expressing ideas, language errors both in terms of word choice and grammar, and lack of student motivation. If these difficulties are not resolved immediately, they will result in ongoing obstacles in the lecture process [7]. Among the various types of writing taught, one type that is considered difficult and still has low learning outcomes is essay writing. Moreover, they have difficulty putting together ideas and presenting solid evidence to make a well-organized essay [2]. Even though essay writing is an important component in teaching and learning English as a second language (English as a second language / ESL), especially in universities [8] as well as what happens in general in Indonesia, English is a language first foreigner taught in school, not a second language. In particular, this condition also occurs in an English Language Education Study Program, in a university, which is used by the researchers to conduct the research.

From the results of preliminary observations made by researchers, there were three lecturers who taught essay writing courses in the fourth semester. The three lecturers teach in four different classes so that there are two classes taught by the same lecturer. In the classroom, two lecturers teach essay writing by providing theory about essay writing while another lecturer uses critical discourse analysis at the pre-writing stage. In addition to making classroom observations, the researchers also looked at documents which were student essays that were submitted to lecturers as final semester assignments.

Meanwhile, from the online questionnaire that the researchers distributed to the students who had taken writing courses in the fourth semester, they stated that writing essays was difficult due to their lack of insight, lack of vocabulary they had, and teaching techniques of lecturers in the classroom. The next question is why writing an essay is considered difficult. The majority of students answered because of their lack of insight. Figure 1 is a recapitulation of student answers regarding the reasons for writing essays that are considered difficult.
Students consider that writing essays is difficult, especially because of their lack of insight, even though the ability to write essays is very important for students to master to articulate their ideas in an academically feasible pattern [9]. For this reason, it is necessary to improve the way lecturers teach in class because it could be that teaching methods are another factor that causes students to not succeed in mastering essay writing skills [7]. And indeed, students also confirm this (it can be seen in the graph) that the second cause is the lack of vocabulary and the third is the teaching methods of the lecturers.

Unfortunately, information about the methods used by lecturers as an approach to teaching writing is still limited. Until now, only a few systematic studies have discussed how lecturers teach writing [3]. One of them is a research conducted by [2] which explains the success of a lecturer in teaching argumentative essay writing in Thailand. The methods are as follows: (1) using various inputs and activities in the classroom to motivate students to become active learners, including working in pairs, group discussions, giving explanations, providing illustrations and implementing debate techniques; (2) analyzing sample texts and present or present their understanding in class; and (3) understanding their students’ learning styles and provide them with what they need to develop their writing skills.

Another writing skill development strategy described by Sukmawan et. al. [10] which states that the use of literature to teach argumentative writing skills also shows significant results. Besides being able to provide writing ideas to students, literature can also improve their critical thinking skills. Another learning strategy is to use Mind Mapping. Mind Mapping is proven to improve students' ability to write argumentative essays that are coherent and coherent, as was done by Roslaini [11].

After studying the results of previous research regarding learning essay writing skills, in this study, the researcher wanted to develop an essay writing learning model that is adopted from the learning model of ICT which is integrated with the use of artificial intelligence. The steps of the ICT learning model is taught to be suitable to be applied in teaching essay writing. Though, the steps are added by one other step which is proofreading done by an AI. The ICT learning model is defined by UNESCO in A Global Framework of Reference on Digital Literacy Skills for Indicator 4.4.2. The learning model of ICT is mentioned to develop students’ digital literacy. Digital literacy is the ability to access, manage, understand, integrate, communicate, evaluate, and create information safely and appropriately through digital technology for
employment, decent work and entrepreneurship. This includes various competencies referred to as computer literacy, ICT literacy, information literacy and media literacy [12].

In this research, the learning model of ICT defined by UNESCO is also integrated with the use of artificial intelligence. This is because the last step of ICT learning model is “to create” while in writing process approach, there are pre writing, writing, and post writing [13]. “To create” is only until the writing step. What to do in post writing can be various. One of them is proofreading. Proofreading is a beneficial thing to do but unfortunately, when it is done by peer, some revision might be less appropriate [14]. That is why the use of artificial intelligence is taught to be helpful. Hence, the use of artificial intelligence in education is quite dramatic [15].

There are many kinds of artificial intelligence that can be used in education. To teach writing, Grammarly, Essaybot, and SAS writing reviser are the examples. In this research, I would like to focus on the use of Grammarly. Therefore, after carrying out the steps offered by ICT learning model, the last step is checking the students’ writing by copying it and pasting it onto Grammarly. From the artificial intelligence, it is expected that the writing of the students can have better quality. Table 1 is the activities of the students and the lecturer when the ICT learning model plus the use of artificial intelligence is applied:

<table>
<thead>
<tr>
<th>No</th>
<th>The Steps</th>
<th>Lecturer’s Activities</th>
<th>Students’ Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Accessing</td>
<td>Mentioning a topic and asking students to find related articles from the internet</td>
<td>Searching articles from the internet and read them</td>
</tr>
<tr>
<td>2</td>
<td>Understanding</td>
<td>Giving time for the students to understand what they read</td>
<td>Trying to understand what they read</td>
</tr>
<tr>
<td>3</td>
<td>Processing</td>
<td>Asking the students to process the information they have gained. Which information they will use and which one is not.</td>
<td>Processing the information and deciding which information to be used in their writing.</td>
</tr>
<tr>
<td>4</td>
<td>Integrating</td>
<td>Instructing the students to integrate their own idea with the information they have gained.</td>
<td>Integrating their own idea with the information they have already gained.</td>
</tr>
<tr>
<td>5</td>
<td>Communicating</td>
<td>Asking the students to communicate their ideas with their friends in a group.</td>
<td>Communicating their ideas with their friend to get new insight.</td>
</tr>
<tr>
<td>6</td>
<td>Creating</td>
<td>Instructing the students to write the idea they have gained from the information they gained.</td>
<td>Start writing their idea to be an essay.</td>
</tr>
<tr>
<td>7</td>
<td>Proofreading</td>
<td>Asking students to copy and paste their writing onto Grammarly</td>
<td>Copying and pasting their writing onto Grammarly.</td>
</tr>
</tbody>
</table>
2 Method

From the previous research and survey that has been conducted to the students, it can be inferred that the solution for the students’ writing problems is a teaching technique that can guide them to gain the ideas to be written, help them perfect their grammar, and assist them correct wrong punctuation. After studying the literature, the writer made a plan for implementing the learning model of ICT and the use of artificial intelligence to make the quality of the students’ writing better. However, in this research, the writer adds one additional step from the steps of UNESCO which is “proofreading”. This step is conducted by using the help of artificial intelligence, in this case is Grammarly.

The research employs research and development method. The study is started by identifying instructional goals, conducting a goal analysis, identifying entry behavior characteristics, formulating performance objective, developing criteria-referenced test items, developing instructional strategy, developing and selecting instructional materials, designing and conducting formative evaluation, and doing revision

3 Results and Discussion

3.1 Results

This section will be written according to the steps of research and development method of Dick and Carey.

Identifying instructional goals

The research is started by seeing the potential owned by the students. They have good ICT literacy but still need some help in their writing skill. However, the curriculum implemented in the study program which is Indonesian National Qualification Framework, which links the alumni profile and the students’ competency require them to master writing since many of the alumni profiles have strong relation with writing such as a teacher, a material developer, a writer, a researcher, etc. Hence, they have to be trained to master the skill well.

a. Conducting a goal analysis

To conduct a goal analysis, the writer did some efforts such as doing an interview and classroom observation

- Interview.
  The data gained from the lecturers and the students are: 1) it is expected that the students are able to write well, especially an essay; and 2) it is expected that the lecturer uses interesting teaching technique to teach essay writing.

- Classroom Observation.
  Classroom observation was conducted to find out problems that arise when the lecturers teach the students essay writing. The field note from the observation can be seen in table 2.
  Based on the results of observation and interviews, it can be inferred that the students need to master writing skill which is one of the requirements in the curriculum used and for their future job. Besides that, they also need to be taught using interesting teaching technique. On the other hand, the teaching techniques used by the lecturers
are quite various. From the result of the observation was presented in Table 2, it is clear that the students learn better when they are provided texts to be read as examples prior to writing their own essay.

Table 2. Observation Notes

<table>
<thead>
<tr>
<th>Aspects being observed</th>
<th>Lecturer 1</th>
<th>Lecturer 2</th>
<th>Lecturer 3</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching technique</td>
<td>Reading activity prior to writing</td>
<td>Giving the topic and asking students to create outline prior to writing</td>
<td>Explaining theories related to writing</td>
<td>The most enthusiastic students observed were those taught by lecturer 1</td>
</tr>
<tr>
<td>Students' Activities</td>
<td>Having adequate ideas and starting to write</td>
<td>The writing is started the following week since the day was used to make an outline</td>
<td>Some students looked confused and some others looked for examples of the essay taught through the internet</td>
<td>Students who started writing immediately were those taught by lecturer 1</td>
</tr>
</tbody>
</table>

b. Identifying entry behavior characteristics

The characteristics of the students were traced by using questionnaire. From the result of the questionnaire filled out by the students, it is found that the students are still weak in their writing skill especially essay writing. However, they are good in using digital media which means that their digital literacy is good.

c. Formulating performance objective

From the curriculum of Indonesian National Qualification Framework, it is found that the students are expected to meet the competencies which are obtained from analyzing the profiles of the alumni. Most of the skill required is writing skill since the alumni profiles are among others: a teacher, a lecturer, a writer, a material developer, a translator, etc. Since the skill required is writing, the performance objective is the ability to write especially an essay with various kinds, among others are: descriptive, narrative, argumentative, and personal recount.

d. Developing Criteria-Referenced Test Items

The test item is in the form of writing. Hence, the students are asked to write both before and after the implementation of the learning model. This writing test is assessed using a standardized scoring rubric as can be seen from the figure 1.

e. Developing Instructional Strategy

The strategy developed is called as the implementation of ICT learning model which is integrated with the use of artificial intelligence. The ICT learning model here is taken from the concept developed by UNESCO. In the concept, the steps of ICT Learning model involve the steps of: accessing, understanding, processing, integrating, communicating, evaluating, and creating. In this research, the steps are added by one last step which is proofreading.

f. Developing and Selecting Instructional Materials.

The materials selected are essay writing including descriptive, narrative, personal recount, and argumentative.

g. Designing and Conducting formative Evaluation

Since the materials are related to writing, the formative evaluation is also creating an essay. The formative evaluation is divided into three steps namely: one to one evaluation, small group
evaluation and larger group evaluation. From all of the tests, it can be seen that the null hypothesis which says that the implementation of ICT learning model and the use of artificial intelligence does not affect the students; writing quality is rejected. Figure 1 shows the scoring rubric of essay writing.

### RUBRICS FOR ESSAY

<table>
<thead>
<tr>
<th>Focus</th>
<th>Content</th>
<th>Organization</th>
<th>Style</th>
<th>Conventions</th>
</tr>
</thead>
<tbody>
<tr>
<td>The single-crediting rubric about a specific task.</td>
<td>The presence of ideas developed through facts, examples, anecdotes, stories, opinions, statistics, meanings, and/or implications.</td>
<td>The manner in which ideas are organized and presented within a well-structured paragraph using transitional choices and including explanation and conclusion.</td>
<td>The choice, use, and arrangement of words and sentence structure that create flow and coherence.</td>
<td>Grammar, mechanics, spelling, usage, and sentence formation.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Score</th>
<th>Rubric</th>
<th>Rubric</th>
<th>Evaluation</th>
<th>Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Substantial, specific, and/or fluctuations exist demonstrating gaining development and sophisticated ideas.</td>
<td>Sophisticated arrangement of central ideas and supporting ideas.</td>
<td>Poetic, illustrative use of a variety of words and sentence structures to create cohesive writer's voice and tone appropriate to audience.</td>
<td>Evidence of control of grammar, mechanics, spelling, usage, and sentence formation.</td>
</tr>
<tr>
<td>3</td>
<td>Sufficiently developed content with adequate elaboration or explanation.</td>
<td>Functional arrangement of content that sustains a logical order with some evidence of transitions.</td>
<td>General use of a variety of words and sentence structures that may or may not create writer's voice and tone appropriate to audience.</td>
<td>Sufficient control of grammar, mechanics, spelling, usage, and sentence formation.</td>
</tr>
<tr>
<td>2</td>
<td>Limited content with inadequate elaboration or explanation.</td>
<td>Confused or inconsistent arrangement of control with or without attempts at transition.</td>
<td>Limited word choice and control of sentence structures that inhibit voice and tone.</td>
<td>Limited control of grammar, mechanics, spelling, usage, and sentence formation.</td>
</tr>
<tr>
<td>1</td>
<td>Minimal presence of a topic.</td>
<td>Minimal control of content arrangement.</td>
<td>Minimal variety in word choice and minimal control of sentence structures.</td>
<td>Minimal control of grammar, mechanics, spelling, usage, and sentence formation.</td>
</tr>
</tbody>
</table>

Fig. 1. The scoring rubric of essay writing

### 3.2 Discussion

This research employs research and development method aiming at producing a learning model to be used in teaching essay writing, developing students’ skill on writing an essay and testing the effectiveness of the model. The study is started by identifying instructional goals, conducting a goal analysis, identifying entry behavior characteristics, formulating performance objective, developing criteria-referenced test items, developing instructional strategy, developing and selecting instructional materials, designing and conducting formative evaluation, and doing revision.

### The Learning Need

At the beginning of the study, the learning needs are identified. The students need to master writing skill especially essay writing but their skill is observed to be low. The teaching techniques employed by the lecturers have not been able to help them solve the problem. After reading several literatures, the writers finally develop a learning model which integrates the students’ digital literacy which steps are taken from the statements of UNESCO and their writing skill.

### The Model Developed

The learning model developed is the integration of ICT learning model and the use of artificial intelligence to teach essay writing. Hence, the steps are: accessing, understanding, processing, integrating, communicating, evaluating, creating and proofreading. Actually, the
model offered by UNESCO is only until “creating” yet the writers add one step which is “proofreading”. This is due to the need of the students to get some help related to the dictions, grammar, and mechanics. The digital literacy steps from UNESCO help them in constructing the idea and guide them from getting the idea to write until it becomes an essay.

4 Conclusion

There are two inferences resulted from the research. First, the research and development produce a learning model which is the integration of ICT learning model and the use of artificial intelligence to teach essay writing. The steps that have been carried out include: identifying instructional goals, conducting a goal analysis, identifying entry behavior characteristics, formulating performance objective, developing criteria-referenced test items, developing instructional strategy, developing and selecting instructional materials, designing and conducting formative evaluation, and doing revision. While the learning model has the steps as follows: accessing, understanding, processing, integrating, communicating, evaluating, and creating. Second, based on the validation from experts, it is known that the score reaches 3.61 for the materials which means good and the expert on learning model gives score of 3.71. The result of interview and questionnaire show that the learning model is effective.

Acknowledgement

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References


Readiness and Sustainability of the Learning System E-Learning in Indonesia

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Abstract. This study aims to analyze the readiness and sustainability of learning systems with e-learning in Indonesia. The data technique is carried out by studying literature by searching national and international research journals related to online learning, policies and regulations related to online learning, and conditions that occur in the field through the official website. Analysis using Milles and Hubermen which includes data reduction, data presentation and conclusions. The results show that Indonesia is not ready for online learning because of some internet network conditions that are not available in some areas, parents as learning companions from home do not have the skills that match or coincide with working hours, not all parents have economic capacity in providing facilities and targets for online learning, and the ability or skills of educators to use technology and information in online learning. The conclusion in this study is that online learning in Indonesia does not yet have complete readiness. Since “Learning from Home” was rolled out to date, there are still a lot of schools going on, especially internet networks and skills in the use of communication and information technology to support online learning. Online learning can be evaluated continuously to support the sustainability of education in Indonesia.

Keywords: E-learning, learning, distance learning, education, covid-19

1 Introduction

Education is one of the main fundamental factors that contribute to the development and growth of a country [1]. Education in Indonesia gets the full attention of the government, as evidenced by the fact that it is stated in the 1945 Constitution in article 31 which consists of 5 paragraphs, namely "Every citizen has the right to education" (paragraph 1), "Every citizen is obliged to follow basic education and the government is obliged to finance it" (paragraph 2), "The government shall endeavor and implement a national education system, which increases faith and piety as well as noble morals in the context of the intellectual life of the nation, which is regulated by law" (paragraph 3), "The state prioritizes the education budget at least twenty percent of the regional budget and expenditure income to meet the needs of the provision of national education" (paragraph 4), and "The government advances science and technology by upholding religious values and national unity for the advancement of civilization and the welfare of mankind" (paragraph 5).

The government issued Law No. 20 of 2003 concerning the National Education System to carry out the mandate of the 1945 Constitution, with the consideration that the national education system must be able to ensure equitable educational opportunities, quality improvement, and the relevance and efficiency of education management to face challenges in...
In accordance with the problems of changing local, national, and international conditions. In Indonesia, education has been implemented through face-to-face learning between teachers and students based on the applicable curriculum. The 2013 curriculum used in schools is known as K13.

The case of the Covid-19 pandemic, which was officially released in March 2020, demands policy changes to support the spread of the virus through physical access and maintaining distance, including policies in the sphere of education. The Ministry of Education and Culture officially calls on “Learning from Home” by issuing two circular letters, namely Circular Number 2 of 2020 concerning Prevention and Handling of Covid-19 in the Ministry of Education and Culture and Circular Number 3 of 2020 concerning Prevention of Covid-19 in the Education Unit. The “Learn from Home” policy for all levels of education, from elementary school, middle school, to university is a new thing so that there is a lot of unpreparedness in its implementation, such as technology failure and difficulty understanding the material presented online, especially for the elementary school level, so it still requires assistance from parents, educators are still skilled and experienced in packaging and delivering e-learning material, limited facilities owned by educators or students such as laptops and cellphones, internet costs that cannot be achieved by educators or students, and so on.

The learning system that is currently carried out online or known as e-learning. E-learning refers to the use of information and communication technology to enable access to online learning/running resources [2]. It is estimated that the provision of the Covid-19 pandemic is still taking a very long time, so distance learning will still be carried out on an ongoing basis. This requires the interaction of government and school management in preparing appropriate online learning so that it can be applied in the long term. This study aims to analyze learning with an e-learning system that can be applied in Indonesia so that education in Indonesia still meets the criteria amid the Covid-19 pandemic.

2 Literature Review

According to Gros & Pealvo, E-learning has become a more essential mode of learning and care in recent decades and has been acknowledged as a cost-effective and efficient learning approach [3]. E-learning uses information and communication technology to provide access to online learning/processing materials and to teach and study using digital tools that allow students to learn at any time and from any location. [2]. E-learning facilitates and enhances learning based on computer and communication technology. E-learning means sharing knowledge using technology, computers, and network-supported and knowledge transfer skills [4]. The use of internet technology to improve knowledge and performance is known as e-learning [5]. E-learning has been around for quite some time. Since the 1960s, electronic learning (e-Learning) has existed as computer-assisted learning. [6]. Although computers were still scarce, they could be used as an instructor-led training medium in the early 1980s. Multimedia that progressed from about 1985 to 1995 Windows 3.1, Macintosh, CD ROM and PowerPoint, and CDs so that training can be repeated even without the presence of an instructor. Email, web browsers, HTML, media players, simple audio/video files, and basic Java apps were unbeatable in the mid-1990s when the World Wide Web (www) was only being started. From CD-ROM to USB, low web bandwidth to high web bandwidth, computers and the web rapidly evolved around the twentieth century. Computers can be accessed more quickly, and coaches/instructors
can now have real-time web discussions with students, and larger data can be transmitted through USB or viewed via the web. Smartphones and other internet-enabled gadgets grew in popularity over time, dramatically altering how individuals search for information. The phrase e-learning is also gaining popularity. With the rise in popularity of mobile devices and internet connectivity, e-learning has expanded to the point that information or knowledge is only a click away. The e-learning process has progressed significantly from instructor-led instruction to being held in one's palm [7]. M-learning refers to e-learning that takes place on mobile devices such as PDAs (Personal Digital Assistants), smartphones, and cell phones, as opposed to e-learning on computers or laptops [4].

Based on their conditions, schools must balance two types of learning and courage-building that as: synchronous (occurs collectively with a group of online learners and usually a teacher) and asynchronous (occurs independently) (occurs anytime, not necessarily in groups, but with teacher feedback) [8].

E-learning plays a vital role in the growth of any country's education. It also offers opportunities for developing countries to improve their educational development [4]. This opportunity is also supported by the rapid development of technology (hardware and software) supported by an adequate internet. The benefits of the e-learning system are also very much time-saving, environmentally friendly and pollution reduction, interactive [4][9], students receive information together and communicate directly with other students, for example through teleconference (audio, video, or excess), internet chat forums, instant messages [5], flexible and providing the latest information and materials [10][7][2], providing rich and unlimited resources, encouraging less reading, and helping active students to be more active [10], as well as being cost-effective (paper costs, infrastructure costs, electricity costs, training costs, stationery costs, travel costs, food costs, etc.) [11][7][12][9].

Challenges also need attention in e-learning, such as failing and boring multimedia systems due to a lack of interactivity and supply due to a passive and unstructured way of presenting instructional content, less than networks and the internet [13], decreased social interaction and communication [10][7]. Slow internet access or connection, a lack of real or direct teacher feedback, the possibility of plagiarism and cheating [10], limitations for students with special needs, such as the blind [7 and use of the internet for purposes other than education, such as accessing social media sites or downloading music and videos [14].

The use of e-learning has become a critical component of education. It increases pedagogical resources, aids students in their learning, enhances learners' abilities, motivation, and knowledge, and prepares them to be productive in today's society's workplace [15]. Learning theory provides general principles for constructing specific learning procedures, where the pedagogical approach comes from. A pedagogical approach is a technique for connecting theory to practice through instructional strategies, which instructors or instructional designers devise to help students learn more effectively [3].

3 Method and Theory

This research is a type of qualitative research with a descriptive approach (descriptive qualitative), namely research that describes or describes a condition or event regarding learning with the e-learning system during the Covid-19 pandemic.

The data collection technique is carried out by studying literature including research journals, policies and regulations related to online learning which are officially released by the
Ministry of Education through the website www.kemdikbud.go.id during the Covid-19 pandemic, and realities in the field through the valid news website. Data from various sources were then analyzed by Miles and Huberman’s analysis which included data reduction, data display, and conclusion/verification.

3.1 Data reduction

Data reduction means sorting and selecting basic data and in accordance with the research objectives. In obtaining research results, for example, not all of the contents of the journal are important to be included in the report. Therefore, data reduction needs to be done to provide data limits that need to be analyzed.

3.2 Data display

Data presentation is a step to interpret the data that has been obtained according to the data selected during the data reduction process. The data display in qualitative research is in the form of a narrative which generally consists of the elaboration of the research results and discussions related to the theory.

3.3 Conclusions

The conclusions in qualitative research are new findings that have never existed before. This finding is the answer to the research objectives. In this study, the conclusions can be answered about the readiness and sustainability of the e-learning system in Indonesia.

4 Results and Discussion

Online learning in Indonesia is still not ready to be implemented. This is shown by the Covid-19 pandemic, the government is still busy formulating various policies to support the implementation of distance learning. The Ministry of Education and Culture's first step is to issue two circular letters, Circular Number 2 of 2020 concerning Prevention and Handling of Covid-19 within the Ministry of Education and Culture and Circular Number 3 of 2020 concerning Prevention of Covid-19 in the Education Unit. The Ministry of Education and Culture is to officially appeal to “Learn from Home” The next step is to adjust the funding of BOS funds that were originally allocated for traditional teaching and learning (direct contact between teachers and students) but were diverted to online learning by revising Minister of Education and Culture Regulation Number 8 of 2020 concerning Regular BOS Guidelines by Minister of Education and Culture imposing Number 19 of 2020 ; Changes to the Technical Guidelines for BOP PAUD and Equality Education. In addition to policies, the Ministry of Education also facilitates e-learning by providing several portals used for online learning, including the website www.belajar.kemdikbud.go.id, Radio Edukasi (application), and TV Edukasi (tve.kemdikbud.go.id), and learning from home through TVRI broadcasts which has been scheduled.

In fact, these steps have not been able to support online learning. This is due to factors outside the government that do not support online learning readiness. Some of the obstacles experienced in implementing online learning include:
a. Some students cannot participate in online learning because the internet network signal is not strong enough in their area.
b. Most parents whose financial circumstances are inadequate or non-existent cannot equip their children with smartphones for online learning.
c. Some teachers are compelled to innovate by altering and disseminating instructional materials on state-owned television directly to students.
d. Whether parents like it or not, the learning process at home necessitates direct parental oversight even though parents must divide their time between employment, housekeeping, and assisting their children in their studies [16].

From a survey via google form conducted by Public Policy Expert at Universitas Gadjah Mada Yogyakarta, Agustinus Subarsono, the most important obstacle is the internet network. This research was conducted on 1,304 respondents including teachers, students and parents at the junior and senior high school levels in five districts in Yogyakarta. As a result, more than 50 percent of respondents complained about the internet network, especially in the Kulonprogo and Gunung Kidul areas. Another obstacle is the ability and skills of parents in assisting children, especially in the use of information and communication technology. In addition, it was found that online learning was more difficult than conventional learning, even material for online learning was more difficult than face-to-face learning [17].

Currently, the government has issued a policy to provide free quotas for students and educators for early childhood education, primary and secondary education, as well as lecturers and students [18]. However, this is not an absolute solution in overcoming problems in online learning because without the support of infrastructure such as laptops or smartphones and a strong network, online learning still has problems. In addition, the educational curriculum for online learning needs to be formulated because the achievement indicators for face-to-face and online can be different, including evaluation of student abilities from learning outcomes.

Based on various conditions that occur in the field, online learning in Indonesia is still appropriate for the middle level, especially high school students and students. This is because it does not require full parental assistance and can use information technology. For online learning for early childhood education and basic education, it is necessary to have policies and technical instructions from the Ministry of Education and Culture so that students can achieve their educational goals.

5 Conclusion

Based on the results of the description above, online learning in Indonesia is not yet fully prepared. Since "Learning from Home" was rolled out to date, there are still a lot of things going on in schools, especially internet networks and skills in the use of information and communication technology to support online learning. Online learning can be evaluated continuously so that it supports the continuity of education in Indonesia.

References

The Power of Incumbency: Abdul Gani Kasuba’s Strategy to Win the Voice of the Makean Ethnic Group in South Halmahera in the 2018 Noth Maluku Governor Election

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Abstract. Sociological factors that base ethnic identity in each political context in the region, elections for governors, mayors, and regents have always been vital in political struggles at the electoral level. Likewise, in the political tradition in North Maluku Province, the ethnic sentiment is an instrument used to get electoral support. In the 2018 gubernatorial election in Kayoa District South Halmahera, ethnic instrumentation did not work because the incumbent Governor, who had a Tobelo-Galela ethnic background, managed to win votes. The Makean-Kayoa ethnic group surpassed the other candidates with the Makean-Kayoa ethnic background. Thus, the research question is how the incumbent Governor's political strategy won the Makean ethnic group's vote. This study uses qualitative methods, with data collection techniques through in-depth interviews by interviewers to respondents. The result found; Strategic Program Campaign, Utilizing AGK Popularity as Ulama, Party Machine Power, and Politics of the Kasuba Clan.

Keywords: Incumbent, political strategy, ethnic identity

1 Introduction

In general, the incumbent has its advantages in each political context because it has specific political resources that other candidates do not have. Kenichi Ariga's research shows how political parties benefit from obtaining votes at the local level by nominating incumbents [1]. Hans JG Hassell's research, how demographic factors such as race influence local voting behavior in America [2], Research from Todd K. Hartman, act., How local party competition in England responds to new information from survey results shows their racial superiority to allocating political resources [3]. Furthermore, Dalston G. Ward and Margit Tavits' research, how partisans influence perceptions of party ideology and political competition. [4].

Meanwhile, in Indonesia, the primordial aspect is the most significant political instrument to political mobilization [5]. With religion, the primordial element can also contribute to fragmentation in political parties, affecting the number of political parties' representatives at the regional level [6]. Other research shows that the clientelism aspect is more dominant than the ideological element in Indonesian society, which experienced ideological splits during the authoritarian period [7]. Research that focuses on political parties' strategy in legislative elections in West Sumatra, with findings; take advantage of party leaders' influence, socialization of candidates directly and in the media, and contributions [8]. Furthermore,
Wahyudin and Sunarso's research, political strategy in the election of Mayor of Bima includes; Strategy Koalaisi party political, Team Building successful and Volunteers [9].

However, in the election for the Governor of North Maluku in Kayoa District, South Halmahera in 2018, the ethnicity factor did not matter because the incumbent Governor who had a Tobelo-Galela ethnic background won 1,653 votes over other candidates with the Makean-Kayoa ethnic background (Table.1). Therefore, this study aims to determine the political strategy of the incumbent Governor in winning the election in Koyoa District, Halmaheras Selatan. Therefore, this research seeks to explain the incumbent Governor's political strategies in winning the election in Koyoa District, South Halmahera.

<table>
<thead>
<tr>
<th>Candidate</th>
<th>Base Ethnic</th>
<th>Status</th>
<th>Number of Votes</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHM-RIVAI</td>
<td>Lain-Makean/Kayoa</td>
<td>Challenger</td>
<td>1267</td>
<td>31.24</td>
</tr>
<tr>
<td>BUR-JADI</td>
<td>Lain-lain</td>
<td>Challenger</td>
<td>744</td>
<td>18.34</td>
</tr>
<tr>
<td>AGK-YA</td>
<td>Tobelo/Galela-lain</td>
<td>Incumbent</td>
<td>1653</td>
<td>40.75</td>
</tr>
<tr>
<td>MK-MAJU</td>
<td>Tobelo/Galela-lain</td>
<td>Challenger</td>
<td>392</td>
<td>9.66</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>4056</strong></td>
<td>100</td>
</tr>
</tbody>
</table>

Sources: https://malut.kpu.go.id

2 Method

The word strategy comes from "strategos," the Ancient Greek which is defined as a "team leader," so in this case, the strategic means the art of being a commander in the war to formulate battle formations to achieve victory [10]. Political strategy is a strategy used to realize political ideals such as enacting new regulations, filling or replacing new structures in government, and others [11].

Further methods and locations conducted this research in Kayoa District, South Halmahera Regency. This study uses qualitative methods, with data collection techniques through in-depth interviews by interviewers to respondents [12] consisting of; Abdul Gani Kasuba's winning team in Kayoa District, community leaders, and voters Makean-Kayoa Ethnic background. The available data are then grouped based on the data's similarity and analyzed in the form of a narrative to obtain conclusions [13].

3 Results and Discussion

In every general election, whether the election of a president or regional heads (governors, regents, or mayors), identity politics often colors public discourse. In the local political context, ethnic identity is in an important position, as was the case with the Governor of North Maluku for 2018-2023 in Kayoa Halmahera Selatan District. Kayoa District is the majority of the Makean-Kayoa ethnic group. Abdul Gani Kasuba and M. Al Yasin Ali (AGK-YA) use political strategies to win the team Strategic Program Campaign, Utilizing AGK Reputation as Ulama, Party Machine Power, and Politics of the Kasuba Clan (Figure 1).
The first strategy is the program campaign. Couple Abdul Gani Kasuba and M. Al Yasin Ali (AGK-YA), where AGK as a campaigner, conducted a strategic program campaign during his tenure as Governor of North Maluku Province 2013-2018. He is committed in the coming period if he is elected, then will improve and enhance existing programs such as; programs in education and health, infrastructure, attention to border areas, economics, and governance. So AGK-YA partner, leveraging strategic program AGK during his tenure as Governor of North Maluku, as a campaign to influence the trend in ethnic make-Kayoa in North Maluku governor's election in 2018.

The second strategy is to take advantage of the popularity of AGK as a religious figure. Before AGK entered as a politician by being the Deputy Governor of two terms and became the Governor of North Maluku, he had traveled throughout North Maluku as a Dai and teacher. He was known and had many disciples. Therefore, the campaign team utilized that popularity as a selling point to voters in Kayoa so that voters with a high religiosity level will choose the AGK-YA partner.

The Third strategy is the power of party machines. The AGK-YA pair utilizes the Indonesian Democratic Party of Struggle Party (PDIP) machine as a large party that has a network from the center to the village level. The PDIP has a vital party institution to quickly mobilize cadres and party sympathizers to gain support for the Makean-Kayoa ethnic group, even though the AGK-YA pair comes from the Tobelo-Galela ethnic group.

The fourth strategy is Kasuba Clan Politics. In South Halmahera Regency, where the Kayoa subdistrict being, the Regent is led by the same clan as AGK. Thus, assumed that the victory of AGK-YA in the election of the Governor of North Maluku 2018 will benefit South Halmahera’s people because the Regent can communicate easily with the Governor both structurally and as a family because they are still in close family ties. Thus, the campaign team informed voters that winning the AGK-YA would facilitate policy synchronization between South Halmahera and North Maluku Province.

Furthermore, this study's findings are that the instrumentation of ethnic identity is not related to candidates' vote acquisition because the incumbent with a Tobelo-Galela ethnic background managed to win over other candidates with a Makean-Kayoa ethnic background in the Makean-Kayoa constituency. Based on these findings, the Makean-Kayoa ethnic group's
characteristics in the 2018 North Maluku governor election were rational voters. As rational voters, the Makean-Kayoa ethnic group chose the Incumbent candidate because they considered that the incumbent had successfully carried out basic service programs, such as; education, health, infrastructure, and economic agenda. Thus, the strategy of campaigning for the governor's plan is very beneficial for the incumbent and has been proven to influence the voting behavior of the Makean-Kayoa ethnic group in South Halmahera.

Another argument why the ethnic identity instrumentation does not work in the Makean-Kayoa community in South Halmahera is the popularity of the Incumbent as a religious figure in North Maluku. Long before Abdul Gani Kasuba became political by becoming deputy governor for two terms and becoming governor of North Maluku for the 2014-2018 period, he was known as the Ulama or religious figure in North Maluku. While on the other hand, the Makean-Kayoa ethnic group is an ethnic group that is also religious and will consider this aspect in determining their choice. So, Abdul Gani Kasuba's position as an incumbent with several strategic programs during his tenure as governor and as an Ulama weakened the Makean-Kayoa community's instrument.

As a result of this research, in a political context involving the incumbent, ethnic identity does not influence voting conduct at the local level, and it also confirms the discrepancies in conclusions with previous studies such as; Hassell [2], Hartman [3], and Agusmawanda [5], those who find that ethnic and racial identity are the primary tools for political mobilization at the local level because the sociological aspect of the candidate does not affect, theoretically, the psychological part of the candidate's figure and the rational aspect of the success of the current program while serving as governor.

4 Conclusion

Based on the research findings, the incumbent's political strategy in obtaining a majority vote in the Makean-Kayoa ethnic group in Kayoa District, South Halmahera, namely, Strategic Program Campaign, Using AGK's Popularity as Ulama, the Power of the Party Machine and the Politics of the Kasuba Clan. Furthermore, another finding in this study is that the ethnic identity factor has no effect on political expectations at the local level, where incumbents who have successfully run the program during their tenure as governor are also known as religious leaders in society.

References


Philosophy of Education in Culture “Saycico” in West Halmahera Regency

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Abstract. This study aims to reveal the development of education based on local wisdom in the "Saycico" culture in West Halmahera district, North Maluku province. Research This is a qualitative study using the intended descriptive approach to explore and clarify the “Saycico” culture in the district community West Halmahera, by describing a number of variables with respect to this problem. The phenomenon of this research is building wisdom-based education local "Saycico". This phenomenon is then implemented in life society so that it is always sustainable and continues to be carried out by every generation at the time to come. This study is not intended to test a specific hypothesis, but only describe the symptoms as mentioned above, namely a qualitative approach where researchers are not limited by certain measuring instruments. Research data were collected through observation techniques, in-depth interviews, and documentation techniques. This research data analyzed using continuous interactive qualitative analysis techniques. This research produce findings that, education and culture are related, namely with education can shape human beings who are cultured, and with culture, can guide humans to live according to the rules or norms that are used as guidelines in live life by exploring and applying a number of local wisdom thriving in communities including "Saycico".

Keywords: Education, multicultural, social solidarity, "Saycico" culture

1 Introduction

Local culture and values wisdom that have developed hereditary in society is a source at once so rich inspiration. It is the basic capital in education for formation of individual and nation character. To do this is required inventory, codification and revitalization sustainable by reenact and putting it in the current context. Such values according to Djibat [1] can be seen from the tradition of various tribes in Indonesia, such as gotong-royong culture, the discipline culture, the culture of punctuality, self-sacrifice, mutual respect, tolerance, hapolas, sopik, makayaklo, saycico, and so on. The dynamics of relationships between ethnicities, between cultures, between religions, leaves a trail of problems that deeply affected the integrity of the nation. Cultural identity is a phenomenon that often causes tension and conflict between resident and ethnic in Indonesia.

Understanding of unity feeling, mutual respect and appreciated (tolerance) and in the same boat feeling (empathy) in social life, national and state life have not been deeply ingrained. Azyumardi Azra [2] says that culture covers so vast aspect reflected in the behavior and work of the children nation, starts from specific works of art to familiar works such as the economic, educational and agricultural system of Indonesian people who are unique in their own way. The cultural treasures and uniqueness of each region need to be maintained and conserved. Culture
should not be left to run, grow and develop without attention and guidance, much more should it be expected to have a role in education and growth and the development of the human society in which it resides. Governments and society have similar responsibilities in advancing culture.

The value of education in any local wisdom is usually associated with the environment to solve the issues and difficulties are faced by society. But the fact is that governments are now not only observing the centralized policies and shaping the national culture, but also giving little attention to local wisdom by enforcing uniformity and avoiding diversity. Regional autonomy in one aspect is able to be minded as an effort to increase back local wisdom that loss all the time from multicultural society of Indonesia. In fact, regional autonomy is likely to be a burden on the development of a harmonious multicultural society. It can be observed from the from decrease a tolerance of society from difference, that there is a narrow understanding of the meaning in “locality” packed into the local “son’s” vocabulary, this is our village, it has your land, doesn’t it? That result an emergence of a ruler or small Kings, and lessening rate of trusting each other in society's lives. These things become a booster and trigger that appearance many problems which the source comes from a plurality, such as people riot that often happened, terrorism, between village conflicts, tarkam, and problems caused by narrow understanding of ethnicity and identity cultural.

The rioting, conflicts and the rioting can develop continuously that requires us to start new efforts, by transforming the increment and multifaceted paradigms of community and national life. In this case, it is the strongest repelling against all forms of threats or views that could destabilize national life with an education that still holds firm to the outlook of Indonesia. A research also tried to give another perspective on the development of a harmonious public education in the local autonomy region by attempting to revive the spirit of multiculturalism among Indonesian, especially in the north Maluku province was an area of conflict.

2 Literature Review

According to language, says saycico comes from region language “Sahu” in west Halmahera district, which means “it is very delicious, it is very good taste, it is great, it is correct, it is elegant, or harmonious.” The people of west Halmahera believe that if there is a cross between culture and education in one region it will result in intelligent children, respect and uphold cultural values and seek to preserve, and pass on to the next generation. According to Magdalena Leftew (a girl of jailolo/interview on August 2, 2019) says, in the saycico culture, the relationship between education and culture is inseparable, that is why Bhimji [3] saying at least key words, namely, education is acculturation (culture) institutionalization (transitory), transfer (inherited), imparting (giving, illustrating), and parting (directing). Umi, Rajab, Margana and Abdul [4] say that “saycico” culture emphasizes education and culture are very closely linked. According to Bigo [5], education is inseparably linked with culture. Without the education process it would not be possible for such a culture to thrive. Thus, Bleiker, Campbell, Hutchison, and Nicholson [6] suggests that the educational process may be called the transmission of culture. In an anthropological perspective, education is the transformation of the cultural social system from one generation to the next in a society. Explained that education is a process of cultivation. In other words, education and culture have unbreakable relationships. Morris [7] emphasizes that when it comes to education, culture participates in it, rather than in one area, and the system and methods of education are discussed. Chouliaraki [8] says there is no culture without education and neither is education always within the cultural sphere.
According to Arman [9] the cultural values of West Halmahera of north Maluku province belong to the nation as a priceless potential for Indonesian building and advancement. Any, Lie [10] says that the people of west Halmahera are pluralistic in both cultural, religious and language communities that have the highest values as its local cinema. That’s why Tuli Kuso (a prominent local producer of Sahu/interview on August 25, 2019) said that there are a number of proven traditional educational practices, such as the indigenous Balisoan, Tacici, Tarauu, and Worat-wurat in preserving the environment by growing fruit behind each other's houses, more of the cultivated fruit plants composed of Langsa, Duku, Rambutan, and Cempedak, while in their gardens, They grow Durian more. Martinus Mess (the head of Worat-worat/interview of August 4, 2019) says over 80 percent of the families in west Halmahera especially “Sahu” must have the durian tree.

As for the central center/place of the first educational process for the prosperity of west Halmahera named “Sasadu”. To this day, “Sasadu” is still well cared for in almost every village. But this did not mean that there were no schools, all the children went on to their formal education. The entire society in west Halmahera according to Nanuru [11] has arranged for what might be called a traditional education, including a well-meaning intelligence education. The people of west Halmahera remain to this day in existence keeping his local whiskey an integral part of daily life and the basis for solutions to the problems of its societies.

“Saycico” has a very deep philosophy for the people of west Halmahera because it contains strong social solidarity especially in education. Social solidarity is so important that Durkheim (12) speaks of him as a moral source for establishing a social order in society. Alcalde and Portos [13] proclaiming the origin of moral authority must be traced to something rather vague called "society." Durkheim developed two related philosophies to explain social realities. Both philosophies according to Rakopoulos [14] are collective consciousness or collective conscience and the collective picture of society. The collective consciousness according to Della Porta [15] is a normative consensus that includes beliefs about religion or other beliefs that support it. According to Cabot [16], collective consciousness varies from one society to another. Whereas the collective picture resulting from this study is symbols that have the same meaning for all members of society and allow them to feel band together. That is why the collective picture for Seymour [17] is part of the collective consciousness, an entity existing in the metaphysical society of west Halmahera and a more proscribed public opinion reality. According to Al-Thahab & Abdelmanem [18] collective consciousness carries all the thoughts are Shared by members of society and serve a collective purpose and purpose. The collective consciousness referred to in this study is to make everyone in the western halmahera family into a human servant. That is why before it is revealed the values embodied in the culture “saycico”, each family still lives on its own asa trigger grows a sense of narrow egotism.

“Saycico's cultural solidarity is based on mutual interdependence. That is co-dependency according to Shaleha and Purbani [19] increasing as a result of increasing specialization in the division of jobs, it is also a catalyst and a catalyst for increasing inequality in society. The rise of differences at the individual level, as Mohanty [20], is concerned by some members of society, as it can cause collective consciousness, which in turn would be a danger to social order. Ismail Guret (a jailolo/interview public on August 24, 2019) points out that the power of this solidarity is marked by the importance of a (Restive) law over a repressive one, in which in “saycico culture” the purpose of the two types of law is very different. According to Agustin & Orgensen [21], repressive laws express intense collective feelings of anger, restive laws that serve to maintain or protect interdependent patterns between various specialized individuals or groups and families in the community. Relate to this problem, Husen Abd. Fattah (a public denser of jailolo/interview on August 5, 2019) says there are two things that should get attention.
First is the rise of phenomenon according to the ethical standards among students. Second, there are no character education models in schools that match the religious and cultural values that can shape the character of students. Thus, it needs to be sought out and formulated effective character education models to be implemented in schools in west Halmahera.

Based on the foregoing, the study also seeks to promote a core education that cannot escape the backbreaking culture of west Halmahera society. Every tribe in the west Halmahera that bhinneka basically has its own culture, has its own noble cultural values, and has local wisdom (local knowledge, or local wisdom) itself. According to Hikmansyah [22] this is what has brought about the deliberative education that is “every society seeks to convey fundamental ideas concerning the nature of the world, knowledge and values.”

In view of our education practices, we are too western-oriented to forget the values of excellence in Indonesia. It is expressed by Sajir & Miriyam [23] that any of us have been blinded to the western educational system so long that it is blind to the old native superiority buried in the earth of Indonesian culture. The condition was enhanced by the Indonesian university of education (UPI) by the derogatory program etnopedagogy. The etnopedagogy referred to in this study is a local wisdom based educational practice. Local wisdom is the process by which knowledge is produced, stored, applied, and passed on (Alwasilah,). Therefore, it needs to be destroyed and formulated with local culture-based character education models for people of this culturally diverse west Halmahera society.

As noted earlier, “saycico” comes from “Sahu” language, one of the oldest tribes in the west Halmahera district that means: it is very delicious, it is very good taste, it is great, it is correct, it is elegant, or harmonious.” That's why the concept of social solidarity that is the central concept of Emile Durkheim develops sociological theory. Durkheim [13] stated that social solidarity is a state of relationship between individuals and/or groups based on a Shared moral sense and trust strengthened by mutual emotional experience. Ciambele. Jose, Fernada, and Victor [24] says solidarity emphasizes on the state of relationships between individuals and groups and underpinning mutual attachment in life with the support of the moral values and beliefs that live in society. That's why Kelliher [25] says the real manifestation of a common relationship will give rise to emotional experiences, thus strengthening the relationship between them.

Social solidarity according to Arbon, Cusack, Gebbie, Steenkamp, and Anikeeva [26], it may also be interpreted as an expression of collective or individual concern that demonstrates a state of relationship between individs and or groups based on the same collective moral equality, and a belief embraced and strengthened by emotional experience. Saying social solidarity can be based on a variety of similar racial, tribal and emotional similarities so that they have a strong desire to improve things and areas or neighborhoods so that they can improve things a little by helping each other to a little more in the way of development. According to Brian [27] social solidarity is also influenced by social interaction that persists because of cultural ties, which are basically caused by the appearance of community sentiment.

Main feature of (plural society) according to Martin, Pritchard, Sorensen [28] was a physically coexisting person, but because of their social differences were fragmented and did not join a political unit. Classic example of Indonesian people in colonial times. That is why the Dutch Indies society was then divided, not only between ruling and governed groups separated by different Races, but it functions as part of economic units, between Chinese, Arab, and Indian farmers.
3 Method

The study is a qualitative study with a string of phenomena intended to unearth and analyze the philosophy of education in “Saycico” culture in the west Halmahera district, while it is intended to preserve local wisdom and build social solidarity with people in a way that describes a number of variables. The time and place of this study lasted 10 (ten) months, from June 2019 to March 2020. The study picks up location in 4 (four) districts in the west Halmahera province of north Maluku, that is: Jailolo, Sahu, east Sahu, and Ibu district, which still maintain and uphold the local culture and wisdom of “saycico.” It is hoped that each of the four subsets can provide a detailed and holistic overview of the data needed for the research.

Research subject are based on research performed and needed data. In qualitative research with a phenomenon approach, the selection of a research subject is very important, that of those who know and or experience the case. Jailolo district, the choice of the subject based on the Suggestions and recommendations of the west Halmahera district's branch of education and culture, and because it is recognized as a substandard that to this day stands firm on saycico's local wisdom with a philosophy inherent in it. Sahu district, the choice of this subject aside from the Suggestions and recommendations of the west Halmahera district's branch of education and culture, as well as because it is a sub district populated by the indigenous west Halmahera tribe, and is still holding the local culture and wisdom values. East Sahu district, the choice of this subject is not only based on the Suggestions and recommendation of the west Halmahera district's branch of education and culture, but also because it represents an extension of sahu district in which saycico culture is born, its population is homogeneous, while some are immigrants, and it is dominated by Sahu and Tobaru ethnicity. Ibu district, the choice of this subject is made aside from the Suggestions and recommendations from head of west Halmahera district's branch of education and culture, as well as because it is one of the oldest districts in west Halmahera, and is already composed of several. To this day, the largest sub district ibu district carries out the “saycico” culture, it is inhabitants are also heterogeneous, but the vernacular is dominated by Gamkonora, Waiyoli and Tobaru language.

This research incorporation data is done by observation, interviews, and documentaries to uncover and analyze the cultural phenomenon of saycico in the education of west Halmahera district as an effort to preserve local wisdom and build social solidarity, by way of which a number of variables on the matter, and other factors that contribute to the preservation and cultural heritage of the community. With the technique it will acquire main data and additional data. Words and actions in the implementation of saycico culture” with statements from the tribal elders, as well as the public figures of the four-sub district, which is the main data in the study.

4 Results and Discussion

4.1 The results of the study of the multicultural reality of West Halmahera

West Halmahera district is one of the districts in North Maluku Province. The regency is an actual region is a master district when North Maluku is produced from Maluku province in
1999. The district is inhabited by a very compound community, this is seen from its citizens derived from various tribes and regions in Indonesia, from North Maluku consisting of Ternate, Makian, Tobaru, Jailolo, Sahu, Tobelo, Waiyoli, Gamkonora and other. While from outside Maluku North, West Halmahera community comes from Bugis, Java, Ambon, Minang, Sangir, Manado, Buton, Batak, and China and other. As for religion, all religions in Indonesia are in West Halmahera, but who dominate is Protestant and Islam. Many local languages used in West Halmahera are; Languages of Ternate, Sahu, Gamkonora, Tobaru, Sangir, Waiyoli, Tobelo, and Language Makian. But in general, the introduction of the days is the Indonesian Dialek Malaku North or better known as the “Malay Ternate” language. Thus, understanding and awareness of the culture of “Saycico” that is thick to multiculturalism has actually appeared even before this district is formed through the pemekaran of North Maluku district and used by the founders of the nation to design the culture of the Indonesian nation we know “Bhinnekaka single IKA” which can show that Indonesia is in the country of multicultural states composed by many tribes. This study found, managing many tribes in West Halmahera districts in one platform unlimited is not easy, especially when not all tribes in this district have the same historical experience. Naturally, if vertical and horizontal conflicts are still common, there may even be latent, and this is also hinted that plurality in Indonesia and West Halmahera, especially not in the multicultural level. The question is, this is solely because the primodial sentiment can not be abolished or there is a management error so that the primodial sentiment is very easy to fall and turn into conflict.? The important thing that has been realized together who often trigger conflicts in West Halmahera and Indonesia in general is the application of government policies through development slogans. Sometimes development programs based on target achievements do not really refine to the comprehensive study of community readiness and the effects of the program. Various conflicts that appear in the form of conflicts of tribal, religious, and interfaith religion (SARA) are suspected of having a root problem with the application of development policies impact on the formation of chronic and accumulative socioeconomic gaps. In viewing the phenomenon of the Hummahera Western community of the developing since the defending district of 1999 to date, it can be said that to prevent the occurrence of conflicts as to be reached, the government successfully implemented Sara (Tribe, Religion, Religious and Intergial) management. The government managed to form the religious order between religion in West Halmahera. The religious order is increasingly adaptive to integration supported by the role of religious institutions set through containers such as MUI (Ulama Indonesia Assembly), GMIH (Church of Ejiti Muhila Halmahera), Parishada Hindu Indonesia and Walubi.

West Halmahera community has its own social system and cultural system that distinguishes with other communities, including the culture of “Saycico” which is the focus of this research. They have a number of traditions or habits that are still implemented in everyday life and are also passed on to generation to date. Especially the “Saycico” culture is seen by the community is still functional and in accordance with the environmental demands of the public residence, which is still maintained and remains up to date. The tradition is always implemented and accompanies what activities in this district and are seen by the functionality by the community, so every time the citizens of the community to take place any of the events, this tradition remains held. The tradition that has been passed by the hereditary is still able to survive, although the community has been widely paid by various progress and development of the age. That is, changes in the time and era of globalization does not damage the existing tradition, despite various changes.

Portrait of Harmony Pompatu Kompak Akediri Design This research has successfully found, culture “Saycico” that is thick to multiculturalism and local aesthetics are understood as an effort to find local values, local wisdom, or like Azumyardi Azra views of the local Genius
contained in the cultural region, such as history, language, the system of raising, live view, customary praauta, customs, literature, arts, and others. This effort appears none other than the form of concern will be broken the generation of a culture of a culture, not from the seneum of being renewed. The study also found, the West Halmahera community is a multicultural society characterized by tribal, religious, racial and class differences. History shows, each ethnic and tribe has its own local wisdom. Moreover, each has the familiarity and hospitality with its own environment. The local wisdom certainly does not appear by itself, but a long processing so that it is finally proven to be good for the good of the community that is multicultural.

The results of this study show everyone in West Halmahera districts that are internally always bound by norms, values, and traditions that naturally want a decent life and togetherness in realizing the safe, tentram, jun, and harmonious atmosphere. But still we often see all the people are able to create harmony and harmony, but otherwise whenever tend to lead to conflicts, riots, and mob beans. The study also found the bustle of social issues of social conflict caused by the multicultural conditions, there is one community community that has a social system of cultural life that reflects religious ability, belonging to the family of the family of Akederi, Jailolo District. This village community is inhabited by various ethnicisms and religions. All religions in Indonesia and almost all ethnicities are in this village, which according to Udin Lessy (the student of the Family of Agelediri village derived from Ambon / interview dated November 8, 2019) has many local wisdom values capable of creating public harmony. This village there has been a National Army Headquarters of Indonesia (TNI) of the Dan Banau Gun. Kasdi (one of the members of the TNI / interview 15 October 2019), which was given additional tasks by the priest at the Mosque of Komi, saying that the life of the family of the family of defaults in the field of religion is very loaded with humanitarian values. For them, there is an important thing to be maintained is togetherness and mutual trust, and this is the implied meaning of the “Saycico” culture.

Keeping the values of togetherness in conjunction with the life of society, the nation and the country are very thick in every community in this village. People are more primarily to live side by side without seeing their different social, religious and trusty-based backgrounds. For those differences are a gift and potential that can be synergized in life. The wholeness of harmonious life in peace to date is still maintained. It can be seen when there are families who are Christians do the huanja, then who helps cook and prepare food is the religion of Islam. Likewise the development of mosques or churches, the community helped each other for its financing, even Kasdi (interview on June 16, 2019) said when the Medidate of the Akederi Village was built, precisely the Chairman of the First Development Committee was the father of Julianis Maraw (the Christian Ableiri). The reality of social life of the community of the islandir village as it is said above, according to Imanuel money (the student of the family of the family of Akederi / interview 20 June 2019) becomes a considered unique and need to be preserved. The consistency in social society culture is the community in religious and trust diversity of a phenomenon that can be a model how to manage social harmony in multicultural society. The question is how to move the harmonious life pattern of the healthy village of Akederi to other areas in Indonesia? This is where the teacher’s position is in the formation of the character of students through local wisdom.

Building a cultural-based harmonic community “Saycico” The results showed that local wisdom position in building the harmonious community life in West Halmahera district, it is good that we reselled what the local meaning of the wisdom. In the Indonesian Dictionary of Indonesia, Local means local, while Wisdom (wisdom) is the same as the wisdom. In general, the local Wisdom (canalist) can be understood as local wisdom, local wisdom, well-worth, embedded and followed by members of the community. According to Bernard Mess (the
community of the Akelamo Village) interview of October 18, 2019), local wisdom or often called Local Wisdom for West Halmahera society, is used to be understood as human efforts by using his mind (cognition) to act and behave to something, object, or events that occur in certain rooms. The above understanding, is prepared etymologically, where the Wisdom is understood as a person’s ability in using his minds in acting or acting as a result of assessment of something, object, or events that occur.

Gerson Leftew (Sahu community leader / interview on 26 July 2019) said, wisdom in West Halmahera is defined as wisdom / wisdom. Local wisdom “saycico” is an explicit knowledge that emerges from a long period that evolved together with the community and its environment in a local system that has been experienced together. The evolutionary process that is so long and inherent in society can make “saycico” a potential source of energy from the collective knowledge.

Furthermore, Farida Domili (interviewed on July 24, 2019) said that in West Halmahera, a harmonious society, if understood at a glance, is a form of social life that emphasizes a democratic spirit and upholds human rights values. According to the results of this study, a harmonious society in West Halmahera, residents work together to build social ties, productive networks and non-governmental human solidarity to achieve the common good. Several indicators that can be used as a measure in realizing the achievement of a harmonious society in West Halmahera according to Abdurrahman Guret (Acango village community leader / interview on 23 July 2019), namely: 1) preservation of the existence of religion or teachings in society; 2) maintained and guaranteed security, order and safety; 3) to establish freedom of thought that is clear and healthy; 4) the establishment of a calm and serene family existence with full tolerance and consideration; 5) developing regional conditions that are democratic, polite, civilized and have high morals; and 6) the development of high professionalism of village officials to create good governance in the village, clean with authority and responsibility.

The results of this study indicate that in a multicultural society in West Halmahera, a diagonal relationship paradigm or reciprocal understanding is needed, to overcome the negative excesses of a problem of national disintegration. Therefore, multiculturalism in West Halmahera is not just a recognition of being different, but rather a symmetrical differentiation (symetrical differentiated citizenship) by recognizing the plurality of identities in society. This should be encouraged by local governments through policies in order to eliminate the emergence of narrow loyalties based on religion or ethnic ties. In addition, through this plurality of identities, the struggle for the interests of the local community is no longer trapped in low, sectarian primordial issues that can threaten local harmony itself. This research also found that the implementation of Regional Autonomy also necessitates providing political space and aspirations for the community to participate widely. The principle of acceptance and respect for the diversity of values is a proliferation of democratic principles that not only encourage participation from and empowerment for all groups of society.

James Wonggo (Tedeng village community leader / interview on December 13, 2019) said that the plurality and diversity of society and culture in West Halmahera is both a reality and a necessity, the original values of the West Halmahera community are values which are embedded in the multicultural concept, values such as Religious tolerance, social aggregation, cultural and ethnic pluralism, are the reasons why the people of West Halmahera chose the “Saycico culture which is more towards equality and harmony, and tolerance than other cultures with religious nuances. This necessity must be acknowledged honestly, accepted gracefully, managed carefully, and guarded with gratitude; It should not be rejected, ignored, ignored, and denied just because the plurality and diversity have caused negative excesses, including the clash of society and culture in various places in West Halmahera. This image of society makes us aware
that an understanding of multiculturalism is a necessity for humans to face global challenges in the future. Thus, multicultural education in West Halmahera has two major responsibilities, namely preparing the younger generation to be ready to face the flow of outside cultures in the era of globalization and to unite a society consisting of various ethnicities and cultures. If these two major responsibilities can be achieved, then the possibility of community friction and the emergence of conflict can be eliminated. On the other hand, excessive local primordialism, religious fanaticism that is too strong or regional exclusivism that often appears along with the birth of the era of regional autonomy can be avoided.

4.2 Character Education Based on Local Wisdom of West Halmahera

Local wisdom that is properly excavated, polished, packaged and preserved can serve as an alternative way of life for the people of West Halmahera today and can be used to filter new / foreign values so as not to conflict with people’s personalities and maintain harmonious human relations with the Creator, nature. Around, and each other. In this case, the values of local wisdom, as illustrated by the Akediri village community, can be used as a content in building student character to be important, especially in the goal of building citizens who have an awareness of multicultural community life.

Regarding the goal of building a harmonious society based on local wisdom, Samsuddin Leba (Sahu community leader / interview on November 2, 2019) proposed character education through local wisdom in West Halmahera to be introduced by teachers to students from an early age. All schools / madrasah students have racial and religious diversity, which can become a community laboratory for the application of character education. The interaction process that involves all parties in local wisdom is the same as studying the characteristics of the material being studied so that students can directly explore the character of these local events. Local wisdom has a very important meaning for students, because they will understand the struggle of their ancestors in various community activities, learn about the values of hard work, perseverance, and never give up which are characteristic of the people of West Halmahera and Indonesia in general, but needs to be emulated in the era of globalization which is full of changes.

Susanti Lolori (a female character from Ibu sub-district / interview, 16 November 2019) explained that education based on local wisdom in West Halmahera has been education that teaches students to always be close to the concrete situations they face everyday. This local wisdom-based education model is an example of education that has high relevance for life development skills, based on the empowerment of skills and local potential in each region. Local wisdom-based education can be used as a medium to preserve the potential of each region in West Halmahera. Regional potential is a specific potential resource owned by a particular region. Therefore, students who come to school cannot be likened to an empty glass, which can be filled easily, but they have brought the cultural values of their respective families and communities. Education based on local wisdom will certainly be successful if teachers understand the insights of local wisdom itself. A wise teacher must be able to insert local wisdom values into the learning process. However, it should also be understood that character education based on local wisdom is not necessarily suitable for the people of West Halmahera which are very heterogeneous.
6 Conclusion

The educational philosophy contained in Saycico culture in West Halmahera district shows that social diversity is an inevitable condition (not an irrational social pathology). This means that building a spirit of multiculturalism means building equality in diversity that leads to the harmonization of life as emphasized in Saycico culture where the political process and actualization of the citizenship process is a process of political expression of recognition, not just a politics of redistribution. Given the importance of understanding multiculturalism in the development of West Halmahera, concrete efforts are needed to make it happen. We need to spread understanding and educate people on the importance of Saycico culture which is very thick with multiculturalism for human life. In other words, we need multiculturalism education that can deliver West Halmahera to achieve justice, prosperity and community welfare.

The people of West Halmahera deserve to return to their identities through re-meaning and reconstruction of the noble values of saycico’s culture and local wisdom. Efforts to build a harmonious society in West Halmahera, what needs to be done is to explore the substantive meaning of saycico local wisdom, for example openness is developed and contextualized into honesty, and uniformity is replaced by diversity. At the same time, the results of this reconstruction need to be grounded and disseminated throughout society so that it becomes a solid identity of West Halmahera, not just a particular ethnic or community identity. In this case, the role and responsibility of teachers are needed to transfer the values of local wisdom through an offering of education-based character education.

References

The Other Side of Human Resources Accounting in the Islamic Hospital of PKU Muhammadiyah North Maluku

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Abstract. Human resources are debated in accounting, whether it is recognized as an asset or an expense, both of which have their own perspective. His study aims to explore the other side of human resource accounting at PKU Muhammadiyah Islamic Hospital in North Maluku. The data analysis method used in this research is interpretive phenomenology. The results show that the other side of human resource accounting is defined as a muer of da'wah, health servant, sources of revenue, and financial expenses.

Keywords: Human Resources Accounting, Asset, Interpretive Phenomenology

1 Introduction

Human resources (HR) are intangible assets, where they are able to realize organizational goals, both for profit and for non-profit. However, it is still being debated by both academics and practitioners since 1960 until now [20]. This was revealed by Mamulati et al., [16] that the debate was caused because HR was recognized as a expense, while HR provided benefits where he worked. The benefit in question is that HR is able to realize the vision and mission of the organization, namely profit and non-profit.

Of course, the debate is based on that concept Financial Accounting Standards Board (FASB) was initiated that assets are resources controlled by the company as a result of past transactions and provide benefits in the future [16]. If the FASB concept is translated to recognize HR as an intellectual asset, it is certainly very appropriate, including: (1) when someone is accepted at a company, of course the company budget for recruitment and training costs when accepted, (2) the company controls employees regarding rights and obligations, (3) able to realize the ideals of the company, both profit and non-profit [9].

In realizing the ideals of the company, both profit and non-profit, the two things cannot be separated. According to Mamulati at al., [16] humans cannot be said to be human beings if they are assessed as separately measured variables, because humans themselves are the company's assets that have the largest contribution to the company. This was confirmed by Rodhe, et al [21] that:

In the business enterprise, a well-organized and loyal personal may be a more important "asset" than a stock of merchandise, at present there seems to be no way of measuring such factors in terms of the dollar.

Based on the concept of HR which was initiated by Rodhe, et al. [21], HR is very very important where he works both in profit and non-profit organizations. Because HR is the most...
loyal asset, when compared to the stock of goods and is able to contribute more than material resources. Even human resources as an asset at the same time influence investors' decisions for a company, both in character [19].

Research on human resource accounting was carried out by Mamulati et al., [16] with the title Phenomenology of human resources as an intellectual asset in Mah Muhammadiyah Business Charity. Where the results of research conducted indicate that human resources as intellectual assets are interpreted as disseminators of knowledge, means of preaching, sources of revenue and also costs. Meanwhile, Kadir et al., [12] with the theme of recognizing human resource assets in achieving profit in terms of religious feminine characteristics. The results of the study found that assets from the perspective of religious femininity have a large contribution to the achievement of corporate profits. The recognition of these assets has not been realized in the financial statements but their existence is in a company and becomes a business driver.

This study aims to reveal the other side of the meaning of human resource accounting at the PKU Muhammadiyah Islamic Hospital in North Maluku. The PKU Muhammadiyah North Maluku Islamic Hospital is a Muhammadiyah charity that was established to realize the preaching of Muhammadiyah, namely eradicating superstition, bid'ah and khurafat (TBC). Thus, it will provide different meanings according to the organizational culture.

From the results of this study are expected to be able to contribute theoretically related to the meaning of human resource accounting as an intangible asset. While the practical aspect is considered to be formulated into human resource accounting.

2 Method

This research was conducted in a qualitative paradigm. According to Stauss and Corbin [25], qualitative research is a type of research whose findings are not obtained through statistical procedures or other forms of calculation. Meanwhile, Gunawan [9] explains that qualitative research is research that does not start from a previously prepared theory but starts from the field based on the natural environment. In addition, Triyuwono [26] stated that Qualitative research is understood as research that uses qualitative data and qualitative analysis tools, namely theories that function as analytical tools.

The research method used in this research is phenomenology. Research using phenomenological methods has been widely used in accounting research [2], [11], [14]-[16], [22]. The phenomenological method is a science (logos) that studies things that are visible. Etymologically, the phenomenon comes from the Greek phainesthai meaning "who appeared". What did it reveal? it can be various: feelings, objects, events, thoughts, social institutions and so on (3). According to Denzin and Lincoln [7] that phenomenology is the science of the essences of consciousness and the ideal essence of objects as a correlation with consciousness. Phenomenology is also a philosophical approach to investigating human experience.

In phenomenological research, researchers are required to be able to describe the phenomena that occur in accordance with the reality in the field. According to Moustakas [19] phenomenology is a description of an experience. Therefore, researchers are required to consistently describe reality naturally, both by informants and their environment. Meanwhile Adrian] stated that if a researcher ignores the things that appear in the subject, the research will be useless. Because the experience of the subject should always be viewed as an experience that is actively involved with the world. Therefore, researchers are required to be able to describe the phenomena that occur in accordance with the reality on the ground.
The phenomenological method in the data collection process has its own characteristics, namely noema and noesis, where it is different from other research methods [14]. According to Moutakas [18] that Neoma is something that is accepted by the five human senses. Husserl explains that noema is faithfully and in the light of perfect self-indwelling. The meaning of the word is accompanied by accurate evidence. Meanwhile, noesis is the basic ingredient of human mind and spirit. Neosis also makes us aware of meaning, when we perceive, remember, judge, feel, and think. Neosis is the ideal side of the object in our mind, not an actual object. With noesis, an object is brought into consciousness, appears in consciousness, and is rationally determined. Furthermore, humans think, feel, assess and remember using neosis. The description of noesis is a subjective description, because there is a given meaning to it.

Furthermore, according to Creswell [6] analyzing data, one of the characteristics of the phenomenological method is the epoche or bracketing developed by Husserl. Where a researcher must be able to remove the concepts that are under him or called preconcept when doing research, so as to get a pure picture (fresh perspective) of the research subject. Rapar [20] suggests that this process is one of the three phenomenological reductions in building rigorous science, so that there is no doubt (apodictic) in it. The second stage is eidetic reduction, to find eidos or the hidden nature or meaning of the observed phenomenon. At this stage the essence or meaning in question has begun to be compiled and presented in the form of specific themes. This process is carried out through careful and interactive observation, not through a linear process [5]. In other languages, through eidetic reduction, a textural description, which is the informant's experience, and a structural description that describes the context of the study can be produced. In the final stage, transcendental reduction is performed which is a key step in Husserl's transcendental phenomenology. The aim is to find the real essence or meaning, pure and whole. The process is done carefully, iteratively, and intuitively. This is the culmination of the entire process in Husserl's transcendental phenomenology, which according to Creswell is called the "essence" of the real nature or meaning of experience [6].

The main source of information in this research is informants. Researchers conducted interviews to obtain the meaning of the other side of human resource accounting. The informants used by the researchers were directly involved in the management of RSI PKU North Maluku, as well as various policies. The informants were: Mr. Ishak, Mr. Andi, dr. Pawa, dr. Arif and Mrs. Ala.

Data collection was carried out by researchers directly to informants. Moustakas [18] explains that in the process of collecting phenomenological data, the understanding, assessment, and daily knowledge of a researcher are put aside first, and the phenomenon is revised in a fresh, and as it is. So that this understanding is then followed by a recollection stage (Groenewald, 2004). The process of extracting and collecting data from informants is carried out by using in-depth interview techniques and researchers as active participants, by being involved in following the people studied in their daily lives, seeing what they are doing, when, with whom, in what circumstances, and ask them about what they did. The presence of researchers as active participants is expected to provide a more complete understanding through interviews using a recording device.

The collected data were made thematic compilations, the data were sorted into sub-themes according to the research objectives. At this stage the researcher tries to make an understanding into the subject's realm of consciousness in the form of remembering, absorbing, and believing activities, where the three types of awareness activities are directed at "something" which in the methodology is called intentionality [18]. The sentence "something" in this study is the theme of the research itself, namely what and how the research subject gives meaning according to their position in RSI PKU North Maluku.
3 Results and Discussion

The human resources in PKU North Maluku Hospital are divided into several parts, namely: Daily Executing Body (BPH), Health Personnel, Non-Health Personnel and Patients. North Maluku PKU RSI was donated in 2012 to Muhammadiyah North Maluku for health services by the Islamic Foundation of North Maluku City. PKU RSI North Maluku has a strategic role in carrying out da'wah in the health sector, of course it takes professionalism to manage it. Olenya, HR owned by PKU RSI North Maluku is demanded to realize good health services and according to Muhammadiyah goals

3.1 Human Resources as a Mover of Da'wah

The main goal of the Muhammadiyah movement in the health, education and social sectors is amar ma'ruf nahi munkar. That is, the efforts that are carried out remain consistent in doing good and preventing evil. In the health sector, namely to make people aware that being sick and healthy is the destiny of Allah SWT, so it does not deify doctors and health servant. As Pak Is disclosed that:

"Human resources at PKU Muhammadiyah North Maluku must play a role as a driver of da'wah in the health sector. Every patient who is treated is given a lecture and the Koran is read by health servant, so that the patient is aware that healing belongs to Allah SWT. As well as human resources also jointly eradicate superstition, bid'ah and khurafat in the health sector.

In addition, Pak Andi revealed that:

"Everyone must believe that healing comes from Allah SWT through medical efforts. Don't think it's a doctor who heals. We need to straighten this matter together, so that there will be no acts of doubting Allah SWT, namely Tahayul, Bid'ah and Ghurafat."

Human resources have a role as a driver of da'wah which is the main goal of Muhammadiyah's charitable efforts in upholding Islamic values, namely eradicating Tahayul, Bid'ah and Khurafat in the health sector. This goal can be said to be a non-profit achievement owned by PKU Muhammadiyah Maluku Utara. Therefore, guidance is carried out in the field of Islam and Muhammadiyah for health servant. This is intended so that health servant remain consistent in realizing organizational goals.

In addition to organizational goals, this coaching is more specific to individual awareness that a job that is done well and sincerely certainly gets thighs on Allah's side. So that collectively get benefits both individuals and institutions in carrying out the da'wah movement.

3.2 Human Resources as a Health Servant

Human resources in RSI PKU Muhammadiyah Maluku Utara have duties as health servants, both doctors and other health servant. The main task as a health service provider is related to patient care both inpatients and outpatients. This was addressed by Dr. Pawa, namely:

"Health servant, including doctors, nurses, analysts, nutritionists and midwives, have duties as health care servant. They provide excellent service to patients so that what they feel is satisfaction, because RSI PKU Muhammadiyah Maluku Utara is engaged in services ".

Mrs. Ala added that:

"Health servant who are owned by RSI PKU Muhammadiyah are health servants so that patients served by us will always pay attention to health service standards, both administration and patient safety".
One of the asset recognition items is that it can be controlled by the company. Health servant, including doctors, nutritionists, analysts, pharmacists and midwives, are controlled by the PKU Muhammadiyah Hospital of North Maluku in carrying out their duties as health service providers. This means that human resources are controlled according to their functions and duties, and always pay attention to health service standards, both administration and patient safety standards.

Maximum service is a priority for RSI PKU Muhammadiyah North Maluku, of course it requires human resources who have expertise in their respective fields. To realize professional services, health servant are given training through their respective professions so that patients are satisfied in terms of service.

3.3 Human Resources as a Source of Revenue

The implementation of health services certainly has an impact on the costs incurred by a patient, so that it has an impact on the revenue of the PKU Muhammadiyah Hospital of North Maluku. As stated by Pak Andi, namely:

“Good health services by doctors and all health servant in serving patients certainly have an impact on patient satisfaction. If the service is optimal, it will certainly provide revenue for RSI PKU Muhammadiyah Maluku Utara through fees paid by patients”

Then added Dr. Arif that

“Without all of us, namely doctors, analysts, nutrition, pharmacy and midwives, of course RSI PKU Muhammadiyah North Maluku could not provide health services. Because patients will come if the health personnel are complete and provide maximum satisfaction, so that they can give satisfaction to patients, for example, many BPJS patients prefer to go to PKU Muhammadiyah Hospital, North Maluku.”

HR has a role in realizing the company's goals, which is to provide benefits in the future. If it is related to the role of human resources in contributing to revenue for the PKU Muhammadiyah Hospital of North Maluku, it can be recognized as an asset. Professional health services certainly affect patient satisfaction, as well as costs incurred as a result of these services. Future revenue is strongly influenced by the human resources at the PKU Muhammadiyah Hospital of North Maluku. Due to the ability of human resources in communication, skills and commitment that are able to make this happen. Thus it must be admitted that human resources are capable of realizing both profit and non-profit in the PKU Muhammadiyah Hospital of North Maluku.

3.4 Human Resources as a Financial Expanses

Running an organization certainly costs money, both for-profit and non-profit organizations. RSI PKU Muhammadiyah Maluku Utara is one of the charities in the health sector, of course it cannot be separated from the risk of costs incurred in serving the community. As stated by Pak Andi, namely:

"Human resources in carrying out their duties as health care providers, of course, have a risk of costs for doctors, analysts, pharmacy, nutrition and midwives based on basic salaries and others that arise related to patient care or other matters. In addition, they are also given training to support optimal health services."

Pak Isaac added that
"Human resources at RSI PKU Muhammadiyah Maluku Utara will first conduct selection and training as health servant. Because we need people who are professional and committed to the goals of Muhammadiyah ".

Financial expenses is something that cannot be separated from health service activities, both for health personnel, patient services and infrastructure for RSI PKU Muhammadiyah Maluku Utara. Therefore, human resources are given salaries, allowances and receive training facilities to support their profession. If HR is linked as an asset, the cost of recruitment and training can be used as a transaction in the past.

In addition to the financial expenses related to recruitment and training, RSI PKU Muhammadiyah Maluku Utara provides assistance to health servant who continue their professional studies. Of course, this is related to future needs, where the profession directly supports service activities.

Recognition of HR as an asset is that transactions have occurred in the past. This means that it is not only related to recruitment and training costs, but also salaries and benefits. This is related to the services provided by HR, which has economic consequences. It even requires money for Islamic and Muhammadiyah activities carried out by RSI PKU Muhammadiyah Maluku Utara.

4 Conclusion

HR have a role in realizing organizational goals, both for-profit and non-profit. RSI PKU Muhammadiyah Maluku Utara having human resources in the health sector has certainly achieved the goals of the organization. The purpose of establishing RSI PKU Muhammadiyah Maluku Utara upholds Islamic values and eradicates Tahayul, heresy and khurafat in the health sector that being sick and healthy is the destiny of Allah SWT and only Allah can provide health. Furthermore, HR is also a health service according to the function of RSI PKU Muhammadiyah Maluku Utara, namely serving patients. In addition, in terms of patients, it will certainly have an impact on the revenue of the PKU Muhammadiyah North Maluku Hospital through patient payments.

HR is recognized as an asset because it fulfills the criteria for asset accounting, namely that transactions occur in the past, are controllable and provide future benefits. First, HR in PKU North Maluku Hospital, before being made employees, is selected and given training to create professional services. Second, human resources in carrying out health services to patients are required to follow the applicable regulations according to the purpose of establishing the hospital. Third, human resources are able to contribute revenue through payments made by patients, both inpatient and outpatient. These three things certainly cannot be from financial expenses, where the process of moving da'wah, providing health services, and earning revenue must require economic or cost sacrifices.

References


The Characteristics of Traffic Accident in Indonesia

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Abstract. Motor vehicle accidents occur frequently in Magelang. According to the data from the Magelang Police Traffic Unit, the number of traffic accidents in Magelang Regency during 2017 to 2019 was 2,684 cases. Each year there is an increase in an average of 100 cases. This study tries to look at this fact from the perspective of the time and place of traffic accidents. The purpose of this study is to reveal the relationship between the time and place of the incident and the traffic accident rate. This study uses primary data and secondary data obtained from traffic accident place and the data available at the Magelang Police. This research reveals that during the effective work time, between 06.00-12.00 and 12.00-18.00 WIB or from 06.00-18.00 WIB, the number of motor vehicle accidents is higher in Magelang. According to the location, the number of motor vehicle accidents is higher on busy and straight roads than on winding and deviated roads. From this research it can be concluded that the accident number in Magelang is higher at certain times and places.

Keywords: Characteristics, traffic accident, time-place

1 Introduction

Traffic accident is one of the most serious social problems in the world. It is the 9th leading cause of death in the world. In the records of the World Health Organization (WHO), in Indonesia, traffic accident is the fifth highest cause of death [3]. According to Dirlantas Polda (Traffic Director of Regional Police) Metro Jaya, Kombes Pol Yusuf, in 2018, the traffic accidents rate in the country increased by 10 percent. This was certainly worrying as it was the year with the highest number of accidents. There were around 25,000-30,000 casualties, which 58 percent of them were millennials, while the rest were upper middle aged [4].

In 2019 the National Police of the Republic of Indonesia recorded that the number of traffic accidents increased compared to 2018. "Throughout 2019 the number of traffic accidents increased by 3 percent, but the number of casualties who died decreased by 6 percent compared to 2018," said National Police Chief General Idham Azis in the year-end release of the National Police, on Saturday (28/12/2019). Based on National Police data, there were 107,500 traffic accidents in 2019, an increase from 103,672 accidents in 2018 [1].

This research was conducted in Magelang Regency. Kabupaten Magelang is a district in the province of Central Java. The capital of this regency is Kota Mungkid. This district is bordered by Temanggung Regency and Semarang Regency in the North, Semarang Regency, Boyolali Regency and Klaten Regency in the East, Kulon Progo Regency and Sleman Regency (Yogyakarta Special Region), as well as Purworejo Regency in the South, Wonosobo Regency and Temanggung Regency in the West, and around the city of Magelang. This topography
shows that Magelang Regency is a strategic area and is within the circle of several districts in Central Java. This situation has implications for the level of crowd and traffic density in Magelang Regency.

Traffic is the movement of vehicles and people in the road traffic space. Vehicle is a means of transportation on the road consisting of motorized vehicles and non-motorized vehicles [8]. The problems related to traffic are traffic jam and accidents. This factor is influenced by the high volume of vehicles on the road during a certain period of time [9]. This is influenced by several factors such as land use and road width. The high volume of vehicles on the roads in the morning is due to the fact that most vehicles go to urban areas to go to work or school. This is also influenced by the existence of schools, universities, government centers, business centers, and other crowded centers in urban areas. Meanwhile, in the afternoon, the roads that have high volume are roads that leave urban areas. This relates to the end of office and school activities.

Traffic accident is one of the problems in the traffic of motorized vehicle. This research reveals about "The characteristics of traffic accidents in Indonesia, considered from the perspective of the time and place of the accidents". The importance of addressing this problem is due to the high number of accidents that occur in Magelang Regency. This article only reveals traffic accidents from two perspectives, the factors of time and place of the traffic accidents. These two things are brought up so that they could be used as knowledge and reminders for those who drive vehicles to be careful when driving motorized vehicles.

2 Method

This research required primary data and secondary data. The primary data were obtained by observing the traffic flows and accidents in the field. In addition, interviews were also conducted with the police on duty in several accident cases that occurred in Magelang Regency. The secondary data were obtained by visiting the Magelang Regency Police Office. Secondary data needed is an accident report at the Magelang Police Office.

3 Results and Discussion

The traffic accident rate in Magelang is quite high, and it tends to increase each year. A traffic accident is an incident on the road which is unexpected and unintentional, involving a vehicle, with or without other road users, resulting in human casualties and/or property loss. (RI Law number 22, Year 2009, Article 1, paragraph 24). Traffic is the movement of vehicles and people in the road traffic space [2]. An accident is an event that does not happen by chance but is accompanied by a cause that can be found out in order to take preventive action. Accidents can cause mild to severe impacts, both material and non-material [7]. The data on motorcycle traffic accidents in the legal area of the Magelang Police from 2017 - 2019 are revealed as described in Table 1.

It can be seen from the table that the average increase in the number of motorcycle accidents in traffic is more than 100 cases. In 2017 there were 780 motorcycle traffic accidents, and then in 2018 it increased to 901 cases. This means that there was an increase of 121 cases from the previous year. Next, in 2019 there were 1003 traffic accidents that occurred in Magelang Regency. This means an increase of 102 cases compared to the previous year.
Table 1. The data on motorcycle traffic accidents

<table>
<thead>
<tr>
<th>Number</th>
<th>Year</th>
<th>Number of occurrences</th>
<th>Fatality</th>
</tr>
</thead>
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<tr>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>1</td>
<td>2017</td>
<td>780</td>
<td>180</td>
</tr>
<tr>
<td>2</td>
<td>2018</td>
<td>901</td>
<td>170</td>
</tr>
<tr>
<td>3</td>
<td>2019</td>
<td>1003</td>
<td>136</td>
</tr>
</tbody>
</table>

Source: Traffic Accident Unit of Magelang Police

The Directorate General of Land Transportation of Indonesia [2] stated that the number of traffic accidents in Indonesia was increasing every year. The high number of traffic accidents in Indonesia is in line with the increasing number of motorized vehicles. The increase in the number of motorcycles is the highest among other types of motorized vehicles [3]. According to Riskesdas (Basic Health Research) 2013, there is a trend of injury prevalence increase from 7.5 percent to 8.2 percent. The second cause of most injuries is motorcycle accident (40.6 %) [3].

An accident is a very complex event. In general, traffic accidents that occur are caused by several factors, such as human negligence, geometrical conditions of the road, vehicle feasibility, and environmental conditions. Based on the data from Korlantas Polri (Traffic Corps of Indonesian Police) 2011-2013, the factors that cause traffic accidents are disobedient, which is as many as 27,035 cases; carelessness, with 21,073 cases; and exceeding the speed limit, with 9,278 cases.

### 3.1 Characteristics of Traffic Accidents Based on The Time of the Incident

Based on Table 2, it can be concluded that many accidents occurred around 06.00-12.00 and 12.00-18.00, or 06.00-18.00.

Table 2. Traffic Accidents Based on the Time of Incident 2017-2019

<table>
<thead>
<tr>
<th>Start from until</th>
<th>Number of casualties</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
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<td>0:00</td>
<td>6:00</td>
<td>193</td>
<td>166</td>
<td>263</td>
<td>622</td>
<td>10.48</td>
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<td>528</td>
<td>671</td>
<td>756</td>
<td>1955</td>
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</tr>
<tr>
<td>12:00</td>
<td>18:00</td>
<td>573</td>
<td>604</td>
<td>771</td>
<td>1948</td>
<td>32.81</td>
</tr>
<tr>
<td>18:00</td>
<td>0:00</td>
<td>393</td>
<td>449</td>
<td>570</td>
<td>1412</td>
<td>23.78</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>1687</td>
<td>1890</td>
<td>2360</td>
<td>5937</td>
<td>100</td>
</tr>
</tbody>
</table>

Many cases of accidents occur at this time because at these times road traffic is usually filled with vehicles going to work and coming home from work. Meanwhile, many motorcycle riders are not careful, in a hurry, in a state of fatigue, and they want to get to their destination quickly, so they drive their vehicle at high speed. This fact is in accordance with what is stated by Manggala [6] that the speed factor is one of the factors causing accidents.

### 3.2 Characteristics of Traffic Accident Based On The Place of Accident

The place with the highest number of accidents in Magelang Regency during 2017-2019 is Mertoyudan District. This is because Mertoyudan District has an area through which the National Road 14 (Jl. Magelang-Jogjakarta) passes. So that the traffic is very busy and never...
empty from motorized vehicle. In addition, Mertoyudan District has various economic and shopping business centers. The following is a table regarding the places where motor vehicle accidents occurred and the casualties showed on Table 3.

### Table 3. Motor vehicle accidents based on place

<table>
<thead>
<tr>
<th>No</th>
<th>Area</th>
<th>Number of casualties according to year</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2017</td>
<td>2018</td>
</tr>
<tr>
<td>1</td>
<td>Bandongan</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>Borobuduro</td>
<td>62 casualties</td>
<td>80</td>
</tr>
<tr>
<td>3</td>
<td>Candimulyo</td>
<td>16 casualties</td>
<td>38</td>
</tr>
<tr>
<td>4</td>
<td>Dukun</td>
<td>34 casualties</td>
<td>42</td>
</tr>
<tr>
<td>5</td>
<td>Grabag</td>
<td>82 casualties</td>
<td>79</td>
</tr>
<tr>
<td>6</td>
<td>Kajoran</td>
<td>48 casualties</td>
<td>23</td>
</tr>
<tr>
<td>7</td>
<td>Kaliangkrik</td>
<td>20 casualties</td>
<td>17</td>
</tr>
<tr>
<td>8</td>
<td>Mertoyudan</td>
<td>233 casualties</td>
<td>331</td>
</tr>
<tr>
<td>9</td>
<td>Mungkid</td>
<td>174 casualties</td>
<td>214</td>
</tr>
<tr>
<td>10</td>
<td>Muntilan</td>
<td>154 casualties</td>
<td>195</td>
</tr>
<tr>
<td>11</td>
<td>Ngablak</td>
<td>11 casualties</td>
<td>11</td>
</tr>
<tr>
<td>12</td>
<td>Ngluwar</td>
<td>20 casualties</td>
<td>25</td>
</tr>
<tr>
<td>13</td>
<td>Pakis</td>
<td>81 casualties</td>
<td>57</td>
</tr>
<tr>
<td>14</td>
<td>Salam</td>
<td>145 casualties</td>
<td>124</td>
</tr>
<tr>
<td>15</td>
<td>Salaman</td>
<td>132 casualties</td>
<td>173</td>
</tr>
<tr>
<td>16</td>
<td>Savangan</td>
<td>30 casualties</td>
<td>31</td>
</tr>
<tr>
<td>17</td>
<td>Secang</td>
<td>204 casualties</td>
<td>244</td>
</tr>
<tr>
<td>18</td>
<td>Srumbung</td>
<td>24 casualties</td>
<td>28</td>
</tr>
<tr>
<td>19</td>
<td>Tegalrejo</td>
<td>115 casualties</td>
<td>59</td>
</tr>
<tr>
<td>20</td>
<td>Tempuran</td>
<td>88 casualties</td>
<td>94</td>
</tr>
<tr>
<td>21</td>
<td>Windusari</td>
<td>14 casualties</td>
<td>18</td>
</tr>
</tbody>
</table>

It can be seen from the table that the five places with highest number of motorized vehicle accidents are: Mertoyudan District with 884 casualties (233 (2017), 331 (2018), 320 (2019); Secang District with 691 casualties (204 (2017), 244 (2018), 243 (2019); Muntilan District with 616 casualties (174 (2017), 214 (2018), 228 (2019); Mungkid District with 537 casualties (132 (2017), 173 (2018), 232 (2019).

Why there are so many traffic accident casualties or traffic accidents in these places is because these places -Mertoyudan, Secang, Muntilan and Salaman- are areas where the roads are very busy with various vehicles. The road is straight. In addition, these places are the main roads that are passed for destinations to other regencies or provinces, such as to Yogyakarta or Semarang or Purworejo. Because these roads are main roads, riders generally ride their motorcycles at high speeds. It is different with Kota Mungkid. Although it is not the main route to go to other areas, Kota Mungkid is the capital of the Regency. As the capital, the road is also
good, straight, but rather quiet, not as busy as the main road. This situation also triggers riders or drivers to run their vehicles at high speed.

4 Conclusion

It can be seen that at certain times, i.e.: during peak hours, the accident rate is higher than at other times as at these peak or busy hours all people who drive motorized vehicles want to get to their destination immediately. Therefore, they drive at high speed. However, this kind of action is very detrimental because it could be the cause of traffic accidents. On the other hand, certain places, i.e.: busy, straight, good, and quiet roads can also be the cause of traffic accidents as these places can trigger drivers to accelerate their vehicle speeds even higher.

References

Influence of Demographic Characteristics, Rice Cultivation Methods, and Value Chain Attitude on Operational Efficiency of the Organic Rice Industry in Thailand

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Abstract. This research has the objective to study demographic characteristics, organic rice cultivation methods and value chain attitudes on operational efficiency of the organic rice industry in Thailand. The study was conducted from a sample of 300 participants involved in the organic rice industry in Thailand. Data were analyzed by using statistical packages (SPSS) including confirmation element analysis (CFA), path analysis and structural equation model analysis (SEM). The results of the study demonstrate that the demographic characteristics of the farmers, organic rice cultivation methods and value chain attitudes influence operational efficiency of the organic rice industry in Thailand.

Keywords: Value chain, organic rice, operational efficiency, competitive competency

1 Introduction

The value chain is a new dimension in developing and driving today's economy and society. By implementing the value chain for various operations in the organization, it will create added value for raw materials from the raw materials, which go through the conversion process, to ready-to-market products, delivered to customers, which all rely on the entire operational value chain [11]. In Thailand, the studies on the value chain have been started since 1, but they are not yet widespread. In addition to increasing the productivity, the value chain also improves operational efficiency [3], which can facilitate the farmers to produce more profitable organic rice. This will benefit all parties involved, including raw material producers, processors, distributors, and, of course, consumers. As a result, the researchers desire to study the value chain influencing operational efficiency of the organic rice industry in Thailand for further industrial and academic benefits.

2 Literature review

Demographic concepts [7] explain that demographic concepts are the individual characteristics with differences in individual characteristics and qualifications, and can be identified as gender, age, income, and different educational backgrounds. This different
demography results in individually different behavior, thoughts and attitudes, which are related to other operational factors. More recently, [6] it was found that demographic characteristics influenced operational efficiency. In the research, it was found that age, gender and education were consistent with the operational efficiency of the farmers. In addition, demographic diversity influences the implementation of a company's strategy. In term of agriculture, it was found in a recent study [2], which examine demographic characteristics and attitudes of small-scale vegetable growers in Chile. It was found that different attitudes were consistent with demographic characteristics, such as age, education, farm size and technology. The farmers who are old, low-educated and limited in use of technology have lower operational efficiency than those who are young and high-educated as measured by the sales produced per square meter.

The concept of organic rice cultivation methods [5] explains that organic rice cultivation methods by farmers in each area have different cultivation methods according to demography, topography, farmer's experience including cost factors and the use of technology in cultivation. Since organic rice cultivation avoids the use of chemical fertilizers and has soil fertility management, which is a delicate rice cultivation with emphasis on the use of natural materials, avoiding synthetic raw materials including plants, animals or microorganisms derived from genetic modification techniques. This makes organic rice cultivation different from general industrial rice cultivation. More recently, [12] the studies on organic rice cultivation methods of farmers influencing operational efficiency, which explain that smart cultivation methods and the use of useful technology by farmers enable them to work more efficiently, resulting in better quality organic rice production. Similarly, a study of [13], which investigated factors influencing decision-making and operational efficiency of farmers supported by enterprise groups in Satuek District, Buriram Province, Thailand. It was found that cultivation characteristics and methods of the farmers were related to operational efficiency of farmers as well.

The concept of value chain [8] explains the value chain as an activity that occurs both internally and externally from the procurement of raw materials and processing to the delivery of goods and services [3]. More recently, value chain analysis studies have been conducted to contribute to the competitive advantage of [1], in line with the study by [9], which found that organic rice value chain is system-centered, with a variety of connections that link the process of centralized organic rice farmers as a strong network, resulting in sustainability influencing operational efficiency of the farmers. A similar study by [10] studied business strategy planning using value chain analysis, and it was found that value chains contribute to purchasing and management of materials, exports, infrastructure, marketing and sales, as well as services and other supports, considered as a great help in increasing the competitiveness of the organization.

Conceptual framework used in research; from literature reviews on concepts, theories and related research, the researchers can summarize and build a conceptual framework used in research as follows showed Figure 1.
3 Method

The population includes those who are stakeholders in the organic rice industry in the northeast of Thailand and community enterprises in the area of RoiKaenSaraSin participated in the project in the total of 300 samples. Purposive sampling was used to identify the sample group in the northeast of Thailand's organic rice chain, and questionnaires are used as a research instrument. The self-administered questionnaire was divided into 4 parts in which the respondents were able to answer the questionnaire by themselves including part 1 (respondent's general information), part 2 (agricultural information), part 3 (opinions on the value chain), and part 4 (opinions on operational efficiency).

Data analysis was done by collecting data from the questionnaire to verify the completeness of the information obtained. The data were processed by SPSS to obtain statistics used in 4-step data analysis: (1) model analysis, measurement and the analysis of accuracy and reliability using confirmatory factor analysis to determine the element weight to show variables influencing operational efficiency, (2) path analysis to analyze the influence or cause of the independent variable affecting the dependent variable, and (3) structural equation modeling which is a hypothesis analysis technique between multiple independent variables at the same time.

4 Results and Discussion

4.1 Results

Demographic data of the sample: most of the respondents were male (60%), aged around 31.35 years old (32.7%). The highest educational background is high school or equivalent, (42.7%). Monthly income is between 15,001-25,000 baht (57.3%). Most career is personal business (52.7%).
Data on organic rice cultivation methods: most farmers have agricultural and residential areas in the total of 30 rai and 40 rai (28.6%). A living area includes 1 rai or 65.7%. An area for rice cultivation includes 20 rai or 31.4%. An area of horticultural cultivation includes 4 rai or 37.5%. A cultivation area includes 10 rai or 33.3%. An area for fruit and perennial cultivation includes 100 rai or 100.0%, and most of them have not been certified for production standards, accounting for 57.1% and passed the production standard certification, accounting for 42.9%. Most of respondents have mobile phones, accounting for 100.0%. Android users are accounted for 100.0%. Most of them do not have computers, accounting for 100.0%. They have the objective of the use of information technology to chat and communicate, accounting for 100.0%.

Data for enterprises: most of respondents currently have 6 employees or 25.7%. There are 2 temporary employees or 17.1%. A sole proprietorship is accounted for 68.0%. Most of business groups are trade, service and agriculture sectors, all accounting for 33.3%. Most of them do not have mobile phones, accounting for 68.0% while those who have mobile phones using Android OS, accounting for 70.8%. Most of them do not have computers within the organization, accounting for 81.3%. Notebooks are accounted for 21.3%. Intranet is used as a network in the organization, accounting for 85.3%, Package software is accounted for 65.3%. The main objective in the use of information technology is to search for information, accounting for 66.7%.

4.1.1 Pearson’s correlation analysis

From Table 1, when considering the relation of the value chain, it was found that operational efficiency and network capability had the highest correlation coefficient of .775, followed by technological application and knowledge management, with a correlation coefficient of .768, while market orientation and operational efficiency had the lowest correlation coefficient of .583.

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technological Application</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge Management</td>
<td>.768**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Network Capability</td>
<td>.752**</td>
<td>.716**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market Orientation</td>
<td>.647**</td>
<td>.686**</td>
<td>.625**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Product Processing Potential</td>
<td>.739**</td>
<td>.692**</td>
<td>.690**</td>
<td>.621**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Operational Efficiency</td>
<td>.761**</td>
<td>.766**</td>
<td>.775**</td>
<td>.583**</td>
<td>.721**</td>
<td>1</td>
</tr>
</tbody>
</table>

Note * p < .05 is statistically significant at .05.

4.1.2 The analysis of the influence on the value chains on operational efficiency

From Table 2, it was found that technological application of the organic rice value chain, knowledge management of the organic rice value chain, network capability of the organic rice, marketing orientation of the organic rice value chain, product processing potential of the organic rice value chain were causally correlated to operational efficiency according to the hypothesis.
Table 2. Characteristics of casual influence on relation between value chains on operational efficiency

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technological application of the organic rice value chain was positively</td>
<td>DE = .298*</td>
</tr>
<tr>
<td>correlated to operational efficiency.</td>
<td>IE = .544**</td>
</tr>
<tr>
<td>Knowledge management of the organic rice value chain was positively</td>
<td>DE = .616**</td>
</tr>
<tr>
<td>correlated to operational efficiency.</td>
<td>IE = .329*</td>
</tr>
<tr>
<td>Network capability of the organic rice was positively correlated to</td>
<td>DE = .453*</td>
</tr>
<tr>
<td>operational efficiency.</td>
<td>IE = .400*</td>
</tr>
<tr>
<td>The market orientation of the organic rice value chain was positively</td>
<td>DE = .503**</td>
</tr>
<tr>
<td>correlated to operational efficiency.</td>
<td>IE = .342*</td>
</tr>
<tr>
<td>Product processing potential of the organic rice value chain was</td>
<td>DE = .365**</td>
</tr>
<tr>
<td>positively correlated to operational efficiency.</td>
<td>IE = .593**</td>
</tr>
</tbody>
</table>

Note * p < .05 is statistically significant at .05.

4.1.3 Structural equation modeling

The researchers have analyzed the relation between the variables in the model by path analysis, which is a concept that can analyze data through structural equation modeling. It was found that a model that demonstrated the relation between variables using the Maximum likelihood estimation method used developed package software, as shown in the Table 3.

Table 3. Results of the consistency of the path analysis on structural equation modeling

<table>
<thead>
<tr>
<th>Statistics</th>
<th>Measurement</th>
<th>Outcome</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>χ²</td>
<td>-</td>
<td>2.27</td>
<td>-</td>
</tr>
<tr>
<td>df</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>χ²/df</td>
<td>Less than 3.00</td>
<td>2.47</td>
<td>Passed</td>
</tr>
<tr>
<td>p</td>
<td>More than .05</td>
<td>.120</td>
<td>Passed</td>
</tr>
<tr>
<td>CFI</td>
<td>More than .90</td>
<td>.986</td>
<td>Passed</td>
</tr>
<tr>
<td>GFI</td>
<td>More than .90</td>
<td>.977</td>
<td>Passed</td>
</tr>
<tr>
<td>RMSEA</td>
<td>Less than .08</td>
<td>.056</td>
<td>Passed</td>
</tr>
<tr>
<td>SRMR</td>
<td>Less than .08</td>
<td>.019</td>
<td>Passed</td>
</tr>
</tbody>
</table>

Note * p < .05 is statistically significant at .05.

The fit between the model and the empirical data is considered by the given the statistical value, χ²/df, which should be less than 3.00. The probability value of the matrix test of variance in the model estimated with empirical data must exceed the statistical significance level of .05 (p > .05). Then, it is accepted that the model is fit with the data. However, the fit index value must be greater than .90, namely goodness of fit index (GFI), comparative fit index (CFI), and the non-fit or residual index must be less than .08, namely RMSEA, the root means square error of approximation (RMSEA) and standardized root mean squared residual (SRMR). The results indicated that the correlation model between variables was fit with the empirical data, where statistical values passed all of the criteria.

4.2 Discussion

The study on demographic characteristics, organic rice cultivation methods and value chain attitude on operational efficiency of the organic rice industry in Thailand establishes an understanding of organic rice cultivation characteristics, methods and improved perspective of
farmers. The results of the study demonstrate that demographic characteristics, organic rice cultivation methods and value chain attitude on operational efficiency can effectively predict phenomena and consequences for further modification and improvement of operational efficiency among organic rice farmers in Thailand. In addition, this study reveals the fact that the value chain positively affects operational efficiency, resulting in academic benefits. This leads to further studies on the value chain, which can lead to a further movement in academia and branching out of knowledge.

The results of this study found that the value chain is an activity that brings products and services from the start to the final stage in delivery to the consumer through various stages. The goal is to deliver the highest value at every stage to the consumer with minimal cost. The appropriate allocation of value chain resources can increase income even more. This shows that the value chain and competitiveness are correlated. Strengthening the value chain at all stages, it can ensure confidence in competitiveness, in line with the previous research study by [5], which found the value chain is an activity consistent with operational efficiency of farmers, resulting in more efficient in operational efficiency. It was also found in the research by [4] and, similarly, [3], which found that the value chain was a factor that contributes to operational efficiency among farmers. When farmers develop their production potential based on the principles of the value chain, they will progress in modernizing the cultivation methods until it becomes acceptable to compete at a higher level. This will increase operational efficiency including more income accordingly.

5 Conclusion

From the analysis results, it can be concluded that, from the perspective of farmers on the importance of organic rice cultivation methods and activities in the organic rice value chain that contribute to operational efficiency, organic rice value chain, technological application of the organic rice value chain, knowledge management of the organic rice value chain, network capability of the organic rice, market orientation of the organic rice value chain and product processing potential of the organic rice value chain will increase the group's operational efficiency. As farmers have many competitors to distribute organic rice, this organic rice value chain is primarily necessary to improve their operational efficiency.

References


The Creation of Distribution Channel, Marketing
Activities, and Partnership Networks for Community
Enterprises in Thailand

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Abstract. This research aimed to study the creation of distribution channels, marketing
activities, and partnership network of community enterprises case studies in Thailand. The
qualitative research and participatory action research were used for this study. Data was
collected by in-depth interviews, observation, and participatory research from 12 groups
of community enterprises which produced agricultural products with traditional
technology and knowledge. The results demonstrated as follows: 1) Creation of
distribution channels, it was found that the community enterprises should sell their
products through exhibitions/booths, direct sales or network marketing, and modern
channels such as convenience stores and supermarkets; 2) Creation of marketing activities,
it was found that the enterprises should create awareness of their agricultural products
through trade shows, seminars, conferences, and social media; 3) Creation of partnership
network, it was found that the enterprises should apply the contractual agreement alliance,
joint venture alliance, and equity alliance for building more partnership networks.
Recommendation from the research results, the community enterprises must keep ongoing
activities to exchange trade negotiations with trading partners. Simultaneously, the
government agencies should help the community enterprises by raising income generation
with a policy to support low-interest funding sources and find sustainable markets both
inside and outside the country.

Keywords: Distribution channel, Marketing activities, Partnership network, Agricultural
products, Community enterprise

1 Introduction

As the consumer's health concern continues to rise, the demand for safe, non-toxic food has
increased, resulting in the agricultural industry adapting to meet organic consumers' needs [24]
[14]. Consumers' acceptance of organic production methods makes food safe and
environmentally friendly that non-toxic residues like conventional agricultural practices [1],[7],
[30]. According to FiBL & IFOAM – Organic International found that in 2018 the global
organic farming area was 69.8 million hectares, accounting for 1.40 percent of the world's
agricultural land. Most of the productive areas are in Oceania with 47% followed by Europe
with 23%, Latin America 12%, Asia 9%, North America 6%, and Africa 3% that had market
creates a value of approximately 2.8 trillion baht [32]. In Thailand, the organic farm area seventh
in Asia has a continuous expansion from 10,524 rai in 2000 and has increased to 570,409 rai in 2017 (16% increase per year). Most of them were organic rice production 59%, farm crops 15%, and mixed vegetables/fruits 13%, which can generate value from organic agricultural exports of 1,817 million baht/year [19].

However, even though the global organic market is likely to grow steadily, organic farmland grows lower than the market demand [23]. Since most farmers are smallholders, there are restrictions on organic farming, which requires more difficult agricultural processes to achieve certification [13]. Moreover, small farmers lack knowledge and understanding of organic farming, lack incentives to turn to organic farming, including obstacles caused by climate, environment, and various disasters [4]. As a result, small farmers still decided to do traditional agriculture using chemicals [19]. Smallholder farmers' problem is not successful in organic farming, causing the government sector to have the policy to promote a group of farmers in the form "Community Enterprises."

The community enterprise will help organic farming members exchange knowledge, technology, experience in organic farming, and process products to add value to organic food. Community enterprises have the potential will make them more accessible to the market to produce products made from the local community, farmers can exchange knowledge, technology, and folk wisdom incorporated into the production process in order to increase productivity and reduce costs. The community enterprises have adopted market-leading principles, which will produce according to market demand that makes the product sold to organizations or consumers both within the country and abroad. Thailand has 91,791 community enterprises and found that only 6,317 can manage and succeed in operating [5]. Therefore, community enterprises that can increase competitiveness will affect their success, and small-scale farmers who are members will also be successful. The enterprise has a commercial advantage and needs to expand its distribution base abroad that should not overlook distribution channels to move product rights from manufacturers to consumers. In this process, marketing intermediaries link between producer and consumer to make efficient distribution products [22]. One of the distribution channels is marketing activities, which use special events to generate interest brand and target consumers [33]. Marketing activities are unique in support plans or strategies to achieve the goals organization [28]. Besides, business partners essential to a collaborative management process strategy critical to an organization's success, which businesses manage their existing resources to competitive advantage over competitors [6],[21].

The problems mentioned above generate additional income for the prototype community enterprise of organic agriculture to provide a good marketing opportunity to organize marketing activities and build business partners. Therefore, it leads to event marketing research and building a network of trade alliances for the model community enterprise's organic products. The challenge is to know what activities are to create a potential for community enterprises, which activities are less valuable and do not perform well, and how those less valuable activities should be improved. This research focuses above problems and found ways to generate income for the prototype community enterprise of organic products by creating distribution channels, marketing activities, and partnership networks.

2 Literature review

This research is interested in strengthening community enterprise, a small organization gathering of small farmers who lack knowledge, experience, and marketing skills. The problem
of finding the right distribution channels to reach the target consumer, marketing communication, and marketing activities to create awareness and attract consumers to purchase organic products is essential to help them sell products and be profitable to the enterprise. There are three critical areas of operational sustainability, which the researcher sees as the urgent issue of skills training for community enterprises: distribution channel, marketing activities, and partnership networks of community enterprises.

2.1 Appropriate distribution channel influence to enterprise success

The distribution channel is essential to organizations that marketing executives can use to communicating until they can sell their products and deliver to consumers. Distribution channels like a network of businesses or intermediaries through products/services reach the end consumer, including wholesalers, retailers, distributors, and even the internet channel [25]. Therefore, distribution channel management needs to focus on products and consumers' characteristics. The selection of appropriate distribution channels resulted in a well-managed and low-cost operation that makes a competitive advantage led to consumers' satisfaction resulting in good sales and profits [11],[27].

2.1.1 Factors affect the determination of distribution channels

Market factors by considering types of customers, resulting in different distribution channels that looking at characteristics purchasing decision process and size of customers' orders; If high-volume orders, a shorter distribution channel preferred than low-volume orders. The number and spreading of target customers to consider the distribution channels that are convenient and quick to purchase [26].

Product factors including service before and after the sale that key factors are product type, technical characteristics, values per unit, and product expiration. The distribution channel has to consider in accordance with the characteristic product so that does not adversely affect in terms of quality and product life [17].

Middlemen factors link between the producer and the buyer that responsibilities differ depending on the ability and policy of selecting a middleman of the manufacturer. A choosing the middleman depends on interested persons' service capabilities, mediator's attitude towards the policy of the manufacturer. Choosing the right intermediary as a distribution channel will help increase the efficiency in creating awareness and delivering products to consumers [20].

Manufacture's company factor in terms of companies available that influence intermediary and distribution channel selection. A manufacturer with substantial corporate resources and personnel with knowledge, abilities, and high working capital. As a result, manufacturers have a high potential to select their distribution channels, have negotiation power and control [3].

2.1.2 Flows of distribution channels in marketing consist of activities

First, physical possession, where the product owns the members in the marketing channel since manufacture, wholesaler, retailer, and consumer respectively that may or may not have ownership of the product [12]. Second, ownership is the right to sell, distribute, transfer the product that may or may not be in possession; usually, the wholesalers and retailers will buy and sell them independently, which does not depend on policy's manufacturer by keeping itself or leaving the product in the public warehouse.
Third, promotion, the manufacturer, will promote sales through wholesalers, merchants, and retailers that, in some cases, the manufacturer may be discount coupons directly to consumers [18]. Fourth, negotiation usually, people can be two-way that different parties negotiate with each other in terms of nature and type of products, prices, and discounts for promotion. Fifth, Financing, product holders who are investors will have the cost that inventory also has many costs. Product holding cost is an investment in goods obsolete product cost depreciation, stolen goods, cost of damage over time, warehouse cost, and various insurance premiums [15].

Sixth, risk-taking is aligned with the burden of funding who owns funds or owner product. Seventh, ordering usually comes from customers/consumers, whether they are made-to-order or produced for waiting for sales. Eighth, payment order and payment activities are seen as activities that move in the same direction.

2.2 Appropriate marketing activities influence to enterprise success

Marketing activities are events as a medium for generating interest, an opportunity to see, and linking the brand with the target consumers [29]. Marketing activities support organization strategy to achieve goals that can be summarized as follows: able to bring brands or organizations to more closely related to target group; help connect brand, organization, activities, and lifestyle of target customers; able to reach the target audience well, strengthen awareness the brand and corporate; various elements are unique to the organization and brands as a symbol, logo and product characteristics; get brand or organization involved part of the event, conference, seminar [16].

Regardless of the product, reaching the target audience is most important to allow customers to try out the products and be confident in their properties. Marketing activities are an indispensable option for entrepreneurs because promoting products/services also stimulate sales or creates a flow to occur during a specific period, causing the products to be of interest and be mention with target customers [8]. Event Marketing is the most prominent marketing tool, allowing target customers to have the opportunity to experience the product more closely.

The format of events spans from small to large events with thousands of people attending the event, such as awards fairs, trade fairs, or live events [10]. There are many events that some are large and specific groups; some can organize frequently; some events are suitable for once a year that can apply for each type are different such as:

- The exhibition event is the organization of marketing activities to present information, pictures, and sound with a scheduled principle, rationale, objective and responsible agency;
- A product launching event aims to create a brand known to generate maximum sales that significant to the purpose of the customer;
- Trade shows are presenting products or ideas to the general public so that prospective customers can see and make a purchased product, also the cultivation of values or creating uniqueness to the store.
- Catering event is catering with different objectives and formats of events, including receptions, leisure parties.

For the success of marketing activity, the organizer needs to learn essential activities to set goals and objectives of events, what have expected results to budget for essential expenses (location and furnishings, food and beverage fees, display fees, team fees, marketing fees), set a clear work plan, date, and efficiency in team management.
2.3 Appropriate partnership networks influence to enterprise success

A partnership network is a close cooperative relationship between two or more organizations that aim to achieve common business objectives due to the difficulty, which either party cannot achieve goals alone [31]. Type of partnership networks:

− A loose market relationship is a business partnership that informal relationships, often due to the favorable business environment and does not last long known as a "Network."
− A contractual relationship is a business partner based on a formal relationship resulting from the merger of two or more business entities, so this partner type is prevalent today, such as subcontracting, licensing, and franchising.
− Formalized Ownership/Relationship this type of business partner is joint Ventures that is more formal than the two types mentioned above due to the proportion of business owners involved.
− A formal integration is a business partner's, which the most traditional form, resulting from which two or more business entities are fully integrating that call mergers & acquisitions.

The current business situation has to admit that there is high competition, and there are many competitors both directly and indirectly with the development of technology and communication, making it easier to entrance business [2]. As a result, the barrier of entry has increased as well, creating a competitive advantage and innovative products and services, may not be sustained. Innovation that competitors could copy in the longer term, novelty may not be sustainable enough to maintain a business advantage [9]. For this reason, maintaining a competitive advantage that will create a sustainable advantage is a business partner.

Also, the organization should analyze or evaluate partners being consistent that will have a greater chance of success together such as; 1) Strategic fit, both core objectives, and long-term objectives that strategy should be in the same direction and expectations of each party. 2) Resource fit, the partners must have knowledge, abilities, and resources to create synergy. 3) Cultural fit, a matter of perception and understanding of culture each party can communicate and work together. 4) Organizational fit, both parties should have a critical management system, such as a decision-making system and control mechanism to communicate with each other to ensure to be undertaken together have a chance of success.

3 Method

This study was qualitative research by participatory action research, which collected data as follows:

− An in-depth interview talks about necessary information of community enterprises, financial management, agricultural products, marketing management, marketing strategy, and communication technology in marketing.
− Observation is a method of collecting by observation reaction, gesture, event, or phenomenon at a particular moment and recording it without interviewing community enterprise members.
− Cooperative research by organizing activities that shows available products and business matching by presenting community products to similar businesses.

With time constraints and limited data acquisition, the researcher has collected in the Northeast of Thailand that selected from the total number of community enterprises 4,001 [5].
The 12-community enterprise chosen by purposive sampling was relevant to processed organic products and could improve marketing knowledge and skill to lead the community enterprise to be successful in the operation. Moreover, the researcher has selected experts from government agencies in the area who are familiar with community enterprise to get data to sufficient analysis, as shown in Table 1.

Table 1. Determining sample size for research

<table>
<thead>
<tr>
<th>Community Enterprise</th>
<th>in-depth interview</th>
<th>Observation</th>
<th>Cooperative research</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Community enterprise of organic fertilizer BanDongrueng T.Nongmeg A.Nonghan Udon Thani Province Group president 1 Group members 4 Government agency 1</td>
<td>30 samples</td>
<td>7 samples</td>
<td></td>
</tr>
<tr>
<td>2. Community enterprise of organic vegetables BanNadee T.Pangchu A.Nonghan Udon Thani Group president 1 Group members 4 Government agency 1</td>
<td>20 samples</td>
<td>7 samples</td>
<td></td>
</tr>
<tr>
<td>3. Community enterprise of process peanuts T.Maungphae Udon Thani A.Gudchap Group president 1 Group members 4 Government agency 1</td>
<td>23 samples</td>
<td>7 samples</td>
<td></td>
</tr>
<tr>
<td>4. Community enterprise of process fermented fish BanHauyboong T.Nonmaung A.Nonnaeng Udon Thani Group president 1 Group members 4 Government agency 1</td>
<td>20 samples</td>
<td>8 samples</td>
<td></td>
</tr>
<tr>
<td>5. Community enterprise of process bananas BanHauySaity T.Nongbua A.Maung Nongbua Lamphu Group president 1 Group members 4 Government agency 1</td>
<td>13 samples</td>
<td>6 samples</td>
<td></td>
</tr>
<tr>
<td>6. Community enterprise of Agriculture development T.Dongmaphai A.Maung Sakon Nakorn Group president 1 Group members 4 Government agency 1</td>
<td>35 samples</td>
<td>7 samples</td>
<td></td>
</tr>
<tr>
<td>7. Community enterprise of process juice BanNonHauChang T.SarmKhor A.Phuparn Sakon Nakorn Group president 1 Group members 4 Government agency 1</td>
<td>37 samples</td>
<td>7 samples</td>
<td></td>
</tr>
<tr>
<td>8. Community enterprise of organic rice BanLadpattana T.Ladpattana A.Maung Sakon Nakorn Group president 1 Group members 4 Government agency 1</td>
<td>20 samples</td>
<td>7 samples</td>
<td></td>
</tr>
<tr>
<td>9. Community enterprise of organic agriculture model T.Nakhar A.Wapi Pathum Maha Sarakham Group president 1 Group members 4 Government agency 1</td>
<td>36 samples</td>
<td>7 samples</td>
<td></td>
</tr>
<tr>
<td>11. Community enterprise of organic vegetables T.Phupor A.Maung Kalasin Group president 1 Group members 4 Government agency 1</td>
<td>20 samples</td>
<td>5 samples</td>
<td></td>
</tr>
<tr>
<td>12. Community enterprise of rubber manufacture T.Nako A.Kuchinarai Kalasin Group president 1 Group members 4 Government agency 1</td>
<td>35 samples</td>
<td>6 samples</td>
<td></td>
</tr>
</tbody>
</table>

***Duration of collected data of 1 year from October 2018 to September 2019***
4 Results and Discussion

Analyze data from an in-depth interview, observation, and cooperative of community enterprise; the researcher would like to summarize research results as follows:

4.1 Distribution channel

An interview with the community enterprise groups found that proper distribution channels and reaching more customers will increase the opportunity to sell products and generate income to be profitable, which the group has presented the distribution channels for the group's organic products.
- Allow the group to exhibit products through exhibitions/booths according to OTOP events and Exhibition shows at the national, regional, and provincial levels.
- Increase distribution channels through direct sales or social network marketing such as Facebook and group pages.
- Increase product distribution channels through large and small stores that reach the most consumers, such as convenience stores, 7-Eleven, Lotus Express, supermarkets, and large department stores such as Central, The Mall, Big. C, Lotus, and Makro.

4.2 Marketing activities

The problem of knowledge, classification, and organization of the sample group's marketing activities was one of the factors that were still lacking product presentations to attract the group's interest. The research team has presented the following forms of marketing activities that the community enterprise should be aware as follows:
- Trade shows are essential for community enterprises to present their products to the target audience, as the group does not have the budget to advertise products through popular and accessible to consumers such as TV media. Exhibitions from the district to provincial level events, if participating, will help the community enterprise gain more customer base, which the group has to adjust the expo format each time to make the product outstanding, looks good, appealing to consumers.
- Participating in various seminars is another platform where community enterprises can exchange knowledge and experience in group management and product processing. The groups should send representatives to attend events consistently both the private or public sector is the operator, which is an excellent opportunity to expand the network.
- The conference is part of community enterprise activities regularly organized to present and exchange information about members' problems. Also, the meeting with external organizations that share solutions to members' problems makes members more committed to the organization and regularly cooperates in group activities.

4.3 Partnership networks

Established a trade network for community enterprises, a small organization that will rise empower them in increasing distribution channels, organizing marketing activities, and creating awareness in consumer products. Besides, a partnership network reduces distribution costs, and supports technology and knowledge in manufacturing, creates a competitive advantage. The
opinion of the sample groups as the ideal partnership network for community enterprises such as;

- A contractual agreement alliance is a formal contractual commitment of a network of partners, ensuring and securing the income to be received. The cooperation between them is beneficial to the community enterprise that once the group has fulfilled the contract, increase groups operation and income.
- A joint venture alliance is a consistent context of community enterprises that lack operation capital, where joint venture partners will increase the liquidity of the enterprise to create innovation, product processing, increase distribution channels, and organize marketing activities to reach and attract consumers to purchase products, leading to higher profitability of the enterprise.
- An equity alliance is a joint venture in which assets or cash invest as a jointly owned partner rather than an exchange of interests. The venture will benefits community enterprises with the potential to mass products that suitable for stepping into commercial. The companies wherewith sufficient funding sources and seeing the potential of groups and have equity together to operate their businesses to be profitable and worth the investment.

5 Recomendation

Suggestion for community enterprise found that the organic groups should take action to increase the potential of their operations as follows:

- There are ongoing activities to develop and transfer knowledge to train expertise and transfer activities to community enterprise members to have knowledge and expertise increased potential to increase organization revenue.
- In carrying out various activities, emphasize that group members express their opinions and express themselves to exchange knowledge and be a part of the community enterprise.
- Express members of the community enterprise to learn and experiment on sales and negotiations with business partners. Moreover, enterprise groups should follow-up member's results on training that they will know problems and revise.
- Businessmen outside the area who are interested in and feedback to the community enterprise should follow up, which is an excellent opportunity to build a good customer base and trading alliance.

Suggestion for government agencies that found that the organic groups should take action to increase the potential of their operations as follows:

- The community enterprise's problems are the lack of capital and low income that result in discouragement and unwillingness to join the activities. Therefore, government agencies should have policies to support community enterprises in accessing low-interest funding sources and supporting distribution channels that can add more income to the groups and members.
- The problems in finding markets to support products that government agencies should have policies to find domestic marketing channels for enterprises that can distribute products and reach more consumers, such as leading department stores, large hypermarkets, Lotus, Big C, Makro. Including promoting international distribution channels in order to provide opportunities for distributing the group's product.
The problems of exchanging knowledge with business people in Mukdahan Province and Lao People's Democratic Republic, which government agencies should organize activities on an ongoing basis for exchanging knowledge in border areas to increase communication opportunities establish trade alliances with neighboring countries.

Acknowledgment

The research entitled “The creation of distribution channel, marketing activities, and partnership networks for community enterprises in Thailand” is part of the project of activities community enterprise model of organic products, which to resolve the problem of lack of operating capital that resulting group members got low income. The objective was to increase distribution channels, generate income for community enterprises to practice, organize marketing activities for community enterprises, and create a network of commercial partners for community enterprises. This research was successful with a funded by the Office of the National Economic and Social Development Council annual fiscal year 2019, and thankful, Khon Kaen University, community enterprise, and government agencies for support and corporation on this research.

References


Inconsistency Adult Age Restrictions in Indonesian Law Construction

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Abstract. Introduction: Indonesian law provides different age limits for adults. Each law provides its limits. The lowest age is found in the law of marriage Marriage, and the highest in civil law in general. Examine the law age limit in Indonesia, and analyzing the ideal age limit in Indonesian law in the future. This research uses secondary data in the form of law materials. The approach used is philosophical, namely looking at the provisions of the ideal adult age limit in the future. The age limit for adults in many laws and regulations varies. The Marriage Law differs from the age limit. The Child Protection Law, the General Election Law, and Population Administration Law. The impact of the inconsistencies in the age boundaries of adults creates an overlapping situation. There needs to be a uniformity of age restrictions in all laws and regulations in Indonesia.

Keywords: Adult age, Overlapping, Law, Ius constituendum

1 Introduction

Adult age restrictions in Indonesian laws and regulations are not uniform. The lowest adult age limit formulation is in the Marriage Act. The minimum age of marriage according to the Marriage Law in Indonesia which regulates prospective brides is 16 years and 19-year-old men are still too low so there are many cases of early marriage.

Setting an adult age limit and being allowed to marry is very important to provide an understanding of society. The conduct of marriage is not based solely on irrational reasons but rather the reason rationale closely related to legal liability. The adult age limit is used to determine a person's ability to perform legal acts. The distinction of different treatments for children and adults before the law has been a concern for the community for a long time. Although the causative factor is not solely due to the factor of adulthood that is classified as still low. Various factors cause early marriage, such as coercion from parents, free association, curiosity about sex, economic factors, environmental factors, and customs [4]. Low education, self-will, the factor of sex addiction as other triggering factors [3].

United National Development Economic and Social Affair (UNDESA) ranks Indonesia 37th in the World and 2nd in ASEAN countries with high rates of early marriage [7]. Indonesia ranks second only to Cambodia [2].

The adult age limit of a person about whether or not the person commits legal acts or as a subject of law. Since a person is in adulthood, he has the right to perform legal acts with others or perform certain legal acts. For example, buying or selling permanent property in his name,
guaranteeing land registered in his name, acting as a shareholder in a Limited Liability Company, Foundation, Firm, Organization, and so on without the help of his parents as trustees.

The provision of adulthood restrictions of a person in Indonesia creates an overlapping and inconsistent situation. A solution is needed to reduce the impact of disharmony regulatory provisions that will be used towards the ideal adult age limit. Non-uniform adult age restrictions are inconsistent.

Adulthood is used to describe the condition of a person with mature thinking and is defined as the phase of human growth after adolescence. The phase of growth into adulthood is inevitable, due to the maturity of the mind, physical growth, and the achievement of genital maturity. Adult age restrictions are used in determining a person's ability to perform legal acts.

Along with the complexity in determining the legal adult age limit, and the lack of uniformity of some provisions in the legislation on the adult age limit of a person, then this research is important to do. The purpose of this study is to examine the overlapping regulations on setting adult age restrictions and their solutions in the future.

2 Method

This type of research is library research. Library research is a study that is rigidized by researching library materials or secondary data. This research includes literature research because the data used is secondary data in the form of legal documents. The approach used in this research is philosophical. The philosophical approach in legal research is to examine the law in terms of ideals. This research uses a philosophical approach because it formulates laws that are still in the level of aspired (ius constituendum), in the form of the idea of a future funding system. The data source used in this study is secondary data. Secondary data is data obtained indirectly or has been provided by another party. Secondary data used in the form of legal documents that serve as the main reference to the adult age limit in Indonesian laws and regulations. Data collection techniques were used in this study through offline and online management. Offline library approval is the activity of finding the source of the library to the data store. While online graduation is the activity of finding the source of libraries in cyberspace through the internet network. Conventional library approval is done by looking for library materials to libraries, collections of books and personal journals, purchasing books, and attending scientific activities (seminars). While online approval is done by searching on the internet. The method of data analysis used is qualitative. Qualitative data analysis is the process of organizing and sorting data into patterns, categories, and basic description units so that themes can be found presented in narrative form. This study uses qualitative data analysis because the data will be presented in a narrative-descriptive way, not in the form of numerics.

3 Results and Discussion

3.1 Overlapping Adult Age Restriction Settings in Indonesia

According to The Great Dictionary of Indonesian Language, adulthood is the age that has reached puberty, i.e. not children or teenagers anymore. And who is more mature than he who has menstruated for women and is a man, and is a man of hard age? A person's time to reach puberty, different from each other. Adulthood means biologically mature, as well as psychically.
So it can be said that there is no need to wait for old age to become an adult because maturity does not always go hand in hand with reduced age.

Adulthood in psychology is a period of development that begins in the late teens or early twenties and ends in the thirties. Adulthood is a period of formation of personal and economic independence, a period of career development, and for many, the period of choosing a partner, learning to live with someone intimately, starting a family, and parenting.

The age limit of adults in Indonesian legal settings is formulated differently. This concludes overlap, let alone formulated in a hierarchically equivalent Law, for example:

1. Article 330 of the Civil Code governs that the immature are those who have not reached the age of even 21 years, and have not married before.
2. Article 98 paragraph (1) Compilation of Islamic Law regulates the age limit of a child who can stand alone or adult is, 21 years, as long as the child is not physically or mentally disabled or has never held a marriage.
3. Circular Letter of the Supreme Court of the Republic of Indonesia Number 07 the Year 2012 concerning The Legal Formulation of the Results of the Plenary Meeting of the Supreme Court Chamber as Guidelines for the Implementation of Duties for the Court, and the Results of the Civil Chamber Meeting of the Supreme Court of the Republic of Indonesia, dated 14 - 16 March 2011 it was agreed that the adult age limit is 18 Years.
4. Circular Letter of the Minister of Agrarian Affairs and Spatial Planning / Head of the National Land Agency No. 04/SE/I/2015 concerning The Limitation of AdultHood in the Framework of Land Services stipulates that the adult age that can perform legal actions in the framework of land services is at least 18 years old or already married.
5. Article 145 paragraph (1) of the updated Indonesian Reglemen regulates that to be a witness, a person must be 15 years old.
6. Article 47 paragraph (1) of the Law of the Republic of Indonesia Number 1 the year 1974 concerning Marriage regulates children who have not reached the age of 18 years or have never held a marriage under the authority of their parents as long as they are revoked from their power.
7. Articles 39 and 40 of the Law of the Republic of Indonesia Number 30 of 2004 concerning Notary Office regulate that the requirement to be a witness is 18 years.
8. Law of the Republic of Indonesia Number 7 the Year 2017 concerning General Elections defines voters are Indonesian citizens who are even 17 years of age or older or have/ have married.
9. Law of the Republic of Indonesia Number 2 the Year 2008 concerning Political Parties as amended into Law of the Republic of Indonesia Number 2 the Year 2011 states that Indonesian citizens can become members of a Political Party if they are 17 years old or have/ have been married.
10. Law of the Republic of Indonesia Number 23 of 2006 as amended by Law of the Republic of Indonesia Number 24 of 2013 concerning Population Administration, determining the age limit of adults is 17 years or have married or have been married must have an e-KTP.
11. Law of the Republic of Indonesia Number 11 of 2012 concerning the Juvenile Criminal Justice System that a child in conflict with the law is a child who is 12 years old, but not yet 18 years old.

Some provisions in the legislation mentioned above state the absence of uniformity about the age limit of adulthood in Indonesia. Some give a limit of 21 (twenty-one) years, as well as 18 (eighteen) years, some even 17 (seventeen) years. The lowest adult age limit is in the
Marriage Act, which is 16 years for women. While the highest age limit is 21 years in the Civil Code and the Compilation of Islamic Law.

As a result of the law doing private legal action will be valid if it meets subjective and objective requirements. The proficiency of legal subjects is included in subjective requirements that have a minimum age standard for performing legal acts. If legal action does not meet the subjective requirements then the legal consequences can be annulled or if the person continues his legal action then must have a guardian to perform guardianship against him or her which has been regulated by law. While the legal consequences of committing public legal action are that it can arise because of the actions of the government only, not waiting for the reaction of the parties served or those affected by the actions or actions of the government.

3.2 The Need for Uniformity of Adult Age Restrictions in Future Regulations

In the event of friction between legal norms, the principle of law is used to break the deadlock. In the context of the conflict between laws and regulations, the relevant principles for use are lex superior derogat legi inferior (higher rules trump lower rules). There is also the principle of lex specialis derogat legi generalis (a more specific rule trumps the more general rule), and lex posterior derogate legi priori (newer rules trump the old rule).

About the adult age limit, the provisions in the Civil Code are seen as a general provision, so that for the field of civility specifically used more specific laws. Based on the principle of lex specialis derogat legi generalis, for marriage then used is a law that specifically regulates marriage. Likewise for other cases.

Performing legal actions requires the ability to act, and the ability to act is influenced by age. But there is no uniformity about the adulthood of a person from the government. There should be one law that uniformly determines the age limit for adults. So that there is clarity of the benchmark of adulthood that is considered capable of doing legal actions and in terms of proficiency in doing a legal action.

There is a lot of smuggling or data manipulation in doing legal action. There needs to be clearer regulation for those that specifically regulate a person's productive limits as well as the role of guardians in representing and supervising to perform legal actions. It will not harm either party in committing a legal action if it violates subjective or objective terms.

Today's millennial era is an era where people are increasingly aware of the importance of the presence of laws to regulate and create order in society. The issue of setting the age limit for adults who act uniformly in various social fields. Of course, it raises public confusion considering that during the explosion of information technology that is so sophisticated, in Indonesia there are still underage marriages.

While it cannot immediately blame the overlapping regulations, it can be said that this contributes to people's confusion about which rules they will follow and use. Moreover, the status of a person who has married or ever married is also a benchmark of a person considered mature in the language of the Law [6].

Although everyone has the authority to do a legal action, of course, some conditions must be met by a person as a legal subject to be able to do legal action and then be legally responsible for his actions. In other words, every act of law must be supported by law and authority [5].

Proficiency is the authority to perform its legal actions and this skill is determined based on the parameters of an adult or immature person according to the law. Maturity in law becomes a requirement that a person as a legal subject can be declared as capable of acting in performing legal acts or adult circumstances that meet the requirements of the Law called "Maturity" [1].
As an effort to harmonize and uniformize the adult age limit, the Supreme Court of the Republic of Indonesia has anticipated it by issuing 2 circulars namely: First, Circular Letter Supreme Court Republic of Indonesia Number 7 the Year 2012 on The Legal Formulation of The Results of the plenary meeting of the Supreme Court as guidelines for the implementation of duties for the Court. Based on this circular that adults are capable of acting within the law i.e. people who are 18 years old or have married. Second, Circular Letter of the Minister of Agrarian Affairs and Spatial Planning / Head of the National Land Agency Number 4/SE/I/2015 age restrictions in the framework of land services. This Circular Letter aims to remove confusion about the age limit of adulthood in land affairs and stipulate that a person who can perform legal actions in the framework of land services is 18 years old or already married.

The publication of the two Circular Letters is expected to provide a reference on the age limit of adulthood in carrying out legal actions. However, circulars that are hierarchically included as derivatives of legislation are certainly inadequate to harmonize laws that hierarchically much higher. Likewise, by using the principle of law. The use of legal principles depends on law enforcement as well as policymakers. The use of legal principles as a temporary policy to meet the needs of the community can be casuistic. Therefore, the uniformity of adult age restrictions is required in all laws and regulations, both at the level and the rules under it in future regulations.

4 Conclusion

Based on the above discussion, it can be concluded that the provisions of an adult age limit for a person to perform legal actions in several laws and regulations in Indonesia are regulated differently. Civil Code and Compilation of Islamic Law with a minimum age of 21 years, the Marriage Law regulates 19-year-old men and women aged 16 years, the Election Law, the Adult Population Administration Act aged 17. The Child Protection Act is 18 years old. Notary Office Law 25 years. As a result of the law doing private legal action will be valid if it meets subjective and objective requirements. While the legal consequences of committing public legal action are that it can arise because of the actions of the government only, not waiting for the reaction of the parties served or those affected by the actions or actions of the government. Solutions in overcoming the diversity of adult age limit regulation have been done by issuing Circular Letter Mahkan Agung Republic of Indonesia Number 7 the Year 2012 and Circular Letter of the Minister of Agrarian Affairs and Spatial Planning / Head of the National Land Agency Number 4/SE/I/2015 adult age restrictions. Harmonization of legislation is required, although there are legal principles that can be used. The use of legal principles depends on law enforcement as well as policymakers. Uniform regulation is required in determining the age limit for future adulthood

References


Pain Suffered by Post Sectio Caesaria Patients: How the Effect of Endorphin Massage and Jasmine Aromatherapy Combination?

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Abstract. Post sectio caesaria pains can be relieved by applying non-pharmacology therapy, one of them is the combination between endorphin massage and jasmine aromatherapy. This combination is able to stimulate the body to release endorphin for relaxation and to deliver electrochemical messages to the central nervous system in order to block the pain receptor. This study is a quantitative one by using quasi-experiment design of non-equivalent pre-test and post-test with two control groups. Sample taking technique used was non-probability sampling of purposive sampling method with 45 respondents. Data was collected by using demography data and NRS assessment. Data analysis was tested with paired T-test, followed by one-way ANOVA test to figure out the influence of given intervention. The study results showed that pain intensity mean in prior to intervention was 5.533 for pre-test and 3.000 for post-test. Analysis data results revealed that significant value of P-value 0.000; P-value <0.05. It can be inferred that the combination of Endorphin massage and Jasmine aromatherapy has had effect on reducing pain intensity in post sectio caesarea patients.

Keywords: Patient, Sectio caesaria, Endorphin massage, Jasmine aromatherapy

1 Introduction

Confinement, the process of giving birth to a baby, is a physiological event, however due to some factors, that event requires medical action in form of sectio caesarea (caesarean section) surgery. Sectio caesarea action is a surgical process to deliver the new-born through incision of the abdominal wall and the uterus. The incidence rate of sectio caesarea is increasingly to rise in Indonesia. In the obstetrics, the midwives need to pay attention or care and fulfil the patient’s comfort. One of conditions that causes patient’s discomfort is the pains. Pains suffered by post sectio caesarea patients can impede the client’s ability to actively involved in mobilization and rehabilitation that will lead to prolonged or extended hospitalization. The pains also have impact on the delay of early breastfeeding since the birth of the new-born baby [1].

Post sectio caesarea pain can be overcome by using non-pharmacological methods. One of non-pharmacological pain management attempts that is able in reducing pain perception is by applying Endorphin massage. Endorphin massage constitutes a light touch developed by Constance Palinsky and used to manage pains. This sort of light touch technique is able to help in normalizing the heart rate and blood pressure. Endorphin massage includes the light massages that is able to make the fine hair on the skin surface to stand up. Several studies have proven that this technique increases the release of endorphin hormone [2].
Another non-pharmacological method used to relieve the pain is aromatherapy. Aromatherapy is a method that uses high-concentrated essential oil extracted from certain vegetation and given through massage, inhalation, compress, or in its crude/pure form. Common aromatherapy used here is the scent of jasmine. The chemical contents of jasmine are, among others, aetheric oil, indole, benzyl, benzyl alcohol, livalylacetat, linalool, acetate, and jasmine. Those chemical contents can be made into standardized ingredients to treat pain. Study results regarding the effect of aromatherapy on the pains suffered by post sectio caesarea patients have showed that jasmine aromatherapy candles are able in reducing the post sectio caesarea pain[3].

Preliminary study results held in RSU PKU Muhammadiyah Delanggu in October-November discovered 173 cases of sectio caesarea. After given with the combination of endorphin massage and jasmine aromatherapy, all of the patients said that the pain decreased. Based on above background therefore the researchers here had the interest in discovering “What is the effect of the combination of endorphin massage and jasmine aromatherapy on the lessening of pain intensity in post sectio caesarea patients in RSU PKU Muhammadiyah Delanggu?”

2 Method

This study employed quasi-experiment research design by using non-equivalent pre-test - post-test with control group. This study was divided into three groups, the first group was experiment given with the combination of endorphin massage and jasmine aromatherapy. The second group was the control group (1) given with jasmine aromatherapy. And the third group was control group (2) given with no intervention. For those three groups, measurement was performed regarding the reduction of the pain intensity.

The population in this study was all post sectio caesarea patients in postpartum rooms/wards of RSU PKU Muhammadiyah Delanggu on 19 April- 9 June. The number of samples used was 45, 15 respondents for each group. Sample taking technique was non-probability sampling in form of purposive sampling with age inclusion criteria of 20-35 years old; have no allergy with jasmine aromatherapy; those who can be communicate with; and willing to be respondent. For exclusion criteria were, among others, sectio caesarea or laparotomy history; high blood pressure (≥140/90 mmHg); any swelling, tumour, and bruises found on the skin surface; client who suffers from or has cancer, asthma, and heart disorder histories; never use aromatherapy due to migraine and cannot be applied to the eyes; or not willing to be a respondent.

Instrument used were, among others, preliminary study questionnaires, observation sheet for NRS pain scale, jasmine aromatherapy, odourless or non-perfume tissue paper, and SOP for endorphin massage. Data collection method used in this study was by giving explanation to the respondents concerning the study procedures and asking the respondents to sign the consent letter to be a respondent. Respondents of three groups. The division was conducted alternately to maintain the balance in the total sample obtained. The researcher then completed the questionnaire sheet contained the characteristic data of the respondent and performed respondent’s pain scale measurement in prior to giving intervention. For the experiment group, the researchers applied endorphin massage for 15 minutes, 5 minutes for each arm and shoulder, clients were guided to be relaxed while inhaling jasmine aromatherapy yang put on the tissue paper (1-2 drops). The action was applied once.
For the control group (1), after given with pre-test, the respondents were guided to be relaxed while inhaling jasmine aromatherapy put on the tissue paper (1-2 drops) for 15 minutes. Whereas, for the control group (2), after given with pre-test, the respondents were asked to perform routine activities in the postpartum rooms without given with any intervention. After the intervention, post-test was given to each group, where the respondents were asked to show once more the pain scale they went through and the data were input to the observation sheet.

3 Results and Discussion

Table 1. Analysis of the effect of endorphin massage and jasmine aromatherapy combination on the reduction of pain intensity in the post sectio caesarea patients in RSUPKU Muhammadiyah Delanggu (N=15)

<table>
<thead>
<tr>
<th>Group</th>
<th>Pain Scale</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Std. Error mean</th>
<th>T</th>
<th>Pvalue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experiment Group</td>
<td>Pre-test</td>
<td>15</td>
<td>5.533</td>
<td>0.734</td>
<td>0.191</td>
<td>13.201</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td>15</td>
<td>3.000</td>
<td>0.632</td>
<td>0.163</td>
<td>8.573</td>
<td>0.000</td>
</tr>
<tr>
<td>Control Group (1)</td>
<td>Pre-test</td>
<td>15</td>
<td>5.533</td>
<td>0.632</td>
<td>0.163</td>
<td>8.573</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td>15</td>
<td>4.133</td>
<td>0.560</td>
<td>0.144</td>
<td>1.382</td>
<td>0.189</td>
</tr>
<tr>
<td>Control Group (2)</td>
<td>Pre-test</td>
<td>15</td>
<td>5.800</td>
<td>0.560</td>
<td>0.144</td>
<td>1.382</td>
<td>0.189</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td>15</td>
<td>5.600</td>
<td>0.560</td>
<td>0.144</td>
<td>1.382</td>
<td>0.189</td>
</tr>
</tbody>
</table>

Based on Table 1, the experiment group showed that the combination of endorphin massage and jasmine aromatherapy was effective in reducing the pain intensity suffered by post sectio caesarea patients with statistic value of $P_{value} = 0.000$; $P_{value} < 0.05$ means that there is a reduction of pain intensity prior to and after the intervention. For the control group (1), the jasmine aromatherapy given was effective in reducing the pain scale of post sectio caesarea patients with statistic result of $P_{value} = 0.000$; $P_{value} < 0.05$ means that there is a reduction of pain intensity prior to and after the intervention. Meanwhile, for the control group (2), without any intervention given, it showed statistic result of $P_{value} = 0.189$; $P_{value} > 0.05$ means that there is no reduction of pain scale.

Endorphin massage gives relaxing effect thus the patients become calmer and showing the lessening of pain. This study was supported by a research [2] which stated that endorphin massage applied to certain parts of the body is able to stimulate the endorphin hormone, where the rise in endorphin hormone is able in blocking the transmission of pain messages. Endorphin massage made the respondents to be more comfortable, relax, and even there were some respondents fell asleep while given with that massage [4].

The study of aromatherapy effect on reducing pain is in tune with the study that has stated the difference of pain intensity of post sectio sectio caesarea before and after the application of aromatherapy inhalation [5]. Another supporting study demonstrates [6] that jasmine aromatherapy candles are able in lessening the pain of post sectio caesarea. Linalool contained in the jasmine aromatherapy is able in increasing circulation and sending electrochemical messages to the central nervous system which leads to spasmolytic, as well as decreasing the nerve impulses that transmit the pain [3]. Aroma has essential role in influencing the client’s sense of feeling. Chemical substances contained in various oil are the ones who work pharmacologically, in which their way of working can be increased through certain methods, more particularly by massage [7]. The combination of endorphin massage and jasmine
Aromatherapy is significantly able in helping the production or release of endorphin compounds and inhibit the pain stimulus through chemical compounds contained in the jasmine aromatherapy.

Those study results [8] support the finding that the combination of endorphin massage and jasmine aromatherapy will stimulate the production of enkephalin, serotonin, and endorphin hormones. Enkephalin can give rise to presynaptic and postsynaptic inhibition on C-type and A-delta pain fibers where they synapse in the cornu dorsalis. The pain inhibition is done by blocking the pain receptors thus those pains are not sent to the cerebral cortex and then will reduce the pain perception.

4 Conclusion

There is the effect of endorphin massage and jasmine aromatherapy combination on the reduction or lessening the pain intensity of post-sectio patients with $P_{value} < 0.05$.

References


Problem-Based Learning Model Based on Naturalist Intelligence to Realize Student's Science Literacy: Needs Assessment Survey

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Abstract. This research is a type of quantitative research that uses a quantitative descriptive research design that aims to find out; (1) How big is the understanding of elementary school teachers on Problem Based Learning, Multiple Intelligence Theory and Science Literacy. (2) To what extent is the urgency of developing a learning model with these 3 aspects for science learning in elementary schools. The population is all Muhammadiyah elementary school teachers in the Magelang district. The sample used in this study were 50 elementary school teachers who teach in grades 4, 5 and 6. The data analysis technique used was descriptive quantitative, the results showed the understanding of elementary school teachers in problem-based learning, learning theory of multiple intelligence, and literacy science, shows more than 50% of teachers understand and learn this. With the urgency in developing the model, more than 60% of the sample agreed with the development of the elementary science learning model.

Keywords: problem based learning, multiple intelligence, science literacy

1 Introduction

Education is the pillar of culture and the main foundation for building a nation's civilization. The fourth point of the Sustainable Development Goals is the improvement of the quality of education. Awareness in developing the quality of education will determine the quality of welfare in the future. A country that has succeeded in achieving a high level of cultural and technological progress must have a very good quality of education. Stipulation of Government Regulation Number 32 of 2013 concerning Amendments to Government Regulation Number 19 of 2005 concerning National Education Standards and Permendikbud No. 81A concerning Curriculum Implementation is expected to encourage the improvement of the quality of education management in education units which leads to efforts to improve the quality of education, particularly through the implementation of the new curriculum, namely the implementation of the 2013 Curriculum in Elementary Schools. Ornstein & Hunkins stated that "successful curriculum implementation results from careful planning, which focuses on three factors: people, programs, and processes [1].

In the 2013 curriculum, teachers are required to act as facilitators whose job is to stimulate or provide stimulus, help students to want to learn on their own and formulate their understanding, while the role of students is to be active in learning and digesting lessons and teachers are expected to use a variety of learning methods that allow students to practice thinking, traditional creative activities, develop freedom of thought, issue ideas, foster the
enjoyment of working together so that teachers are required to provide a variety of learning activities that have implications for a variety of learning experiences so that students can develop their competencies independently [2][3].

The development of learning must be adapted to the conditions of students in the classroom, besides that it must also pay attention to the circumstances around the school for teachers to be able to package learning that is backgrounded and focuses on the lives of students themselves. Demands for implementing the 2013 curriculum where teachers are proficient in developing learning. The learning model is a learning model where the teacher can help students to get or obtain information, ideas, skills, ways of thinking, and express their ideas. In addition, they also teach how students learn [4]. The implementation of science education in Indonesia is still low, this can be seen from the results of the science literacy of Indonesian children. Scientific literacy is characterized by scientific work, and the three major dimensions of scientific literacy defined by PISA are science content, scientific process, and scientific context.

Based on the above, elementary science learning should be improved by doing: 1) science learning is not only learning the concepts but also accompanied by the development of scientific attitudes and skills (domain knowledge and cognitive processes); 2) science learning provides a learning experience that develops the ability to reason, plan and conduct scientific investigations, using the knowledge that has been learned to understand natural phenomena that occur around them; 3) revitalize "scientific process skills" to develop observation skills, plan investigations, interpret data and information (narratives, pictures, charts, tables) and draw conclusions 4) combine multiple intelligence learning theories according to students' learning styles.

One of the developments of science learning in elementary schools is by using Problem Based Learning. Problem-based learning helps students to get information already in their minds and construct their knowledge about basic and complex knowledge. Problem-based learning has student-centered characteristics, designed based on real problems that encourage students to build rich knowledge of contextual mathematical concepts through a series of constructive questions [5] on the other hand the Problem-based Learning model produces better results on metacognitive skills and independent learning students when compared with conventional learning models [6]. The science learning process cannot stand alone, there must be a combination of multiple intelligences that match the student's learning style. In general, science learning is closely related to naturalistic intelligence. Naturalistic intelligence is defined as the skill to recognize and categorize species, both flora, and fauna, in the environment, and its ability to cultivate and utilize nature and preserve it [7]. In the 2013 Curriculum, apart from the learning outcomes to be achieved, scientific literacy can also be added in science. Scientific literacy is now a demand that must be mastered by every individual. Students who have scientific literacy skills will apply their knowledge to solve problems both in personal, social, and life situations [8]. The first thing in applying scientific literacy is to see students' involvement in learning based on experiences experienced in life-related to knowledge. students obtained from scientific literacy [9]. Based on the description above, in the development of learning in elementary schools, it is necessary to develop a model that focuses on Multiple Intelligence and can improve students' scientific literacy.
2 Methods

This research is quantitative research with a descriptive survey research method, the survey method is used to obtain data from a certain population that is natural, but the researcher collects data by distributing questionnaires where the researcher does not provide treatment as in the experiment [10]. Collecting data using a questionnaire survey. The data obtained will be analyzed using descriptive analysis. The analysis is described by the calculation results in the form of numbers and from these results will be explained descriptively. Based on this type of descriptive research approach, the researcher will describe and analyze the conditions regarding the need for developing learning models. In this study, the participants used in the survey to develop this model were the teachers of the Muhammadiyah Primary School in Magepang Regency totaling 50 people. This teacher teaches in grades 4 to 6.

3 Results and Discussion

3.1 Conditions of Understanding Aspects of model development

Of the 50 elementary school teachers who filled out the main comprehension questionnaire via a google form, each main aspect had 10 questions which were then displayed using the average sum of all the questionnaires, the results can be seen in Table 1.

<table>
<thead>
<tr>
<th>No</th>
<th>Main Aspects</th>
<th>Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Understanding Problem Based Learning</td>
<td>10 29 11</td>
</tr>
<tr>
<td>2</td>
<td>Understanding Multiple Intelligences</td>
<td>25 20 5</td>
</tr>
<tr>
<td>3</td>
<td>Understanding Science Literacy</td>
<td>23 24 13</td>
</tr>
</tbody>
</table>

*Number of teachers every class

At this stage the researchers surveyed 50 teachers, the results can be analyzed that the Problem Based Learning learning model requires development, this is caused because the science material in elementary school is very complex and requires an innovative learning model. Problem-based learning needs to be applied to elementary school children to improve students' scientific abilities. Through PBL learning, students are trained to think critically to solve real problems in groups. Learning activities with the PBL model affect students' environmental attitudes because the problem-solving process in PBL learning encourages students to care about their environment [11]. In the aspect of the theory of multiple intelligences, the majority of teachers have a less comprehensive understanding of this theory, this is because most teachers do not add references to their knowledge of psychological development in terms of learning. However, almost half of the population requires the Multiple Intelligence aspect in the implementation of learning.

At this stage, the teacher realizes that every child has the potential for intelligence that can be developed, especially naturalist intelligence as the main way to discuss science according to the environmental conditions of each student. In the opinion of the naturalist intelligence teacher, it is very necessary because it invites students like a researcher, this will affect the enthusiasm and interest of students in learning science. Students also enjoy doing research. They
are attracted to various species of living things and animals. They enjoy reading magazines about nature and traveling [12]. In the aspect of scientific literacy, it also supports this to be used as a goal in science learning. The 2013 curriculum for implementation in elementary schools also emphasizes adding other competencies such as elementary school literacy. The majority of teachers agree because, at the next level of education, scientific literacy is a stage that must be mastered by students.

3.2 Survey on the urgency of learning model development

Table 2. Survey on the urgency of learning model development

<table>
<thead>
<tr>
<th>No</th>
<th>Developmental Aspects</th>
<th>Grade</th>
<th>Conditions</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Problem Based Learning needs to be developed</td>
<td>4</td>
<td>5</td>
<td>8</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Learning needs to be developed</td>
<td>5</td>
<td>3</td>
<td>10</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Multiple intelligence combinations for the learning process</td>
<td>6</td>
<td>1</td>
<td>8</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Realizing scientific literacy</td>
<td>4</td>
<td>2</td>
<td>16</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>5</td>
<td>2</td>
<td>7</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>6</td>
<td>3</td>
<td>4</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

*Number of teachers every class

The survey results in the aspect of Problem Based Learning need to be developed, especially in grades 4, 5, and 6 where more than 50% of teachers agree on the development of the model. Problem-based learning needs to be developed according to the characteristics of elementary school students and the demands of the current situation. Development can be done with the use of media or other devices. The learning process using a problem-based learning process makes each student have the responsibility to solve problems on student worksheets to connect daily life, problem-based learning also ensures all students understand what they have done, such as problem clarification, group problem-solving techniques, gathering information, and sharing information data and discussing for problem-solving. The problem-based learning model of science learning can be applied by teachers in elementary school learning in grades 4, 5, and 6 to develop scientific literacy. The selection of the problem-based learning model based on scientific literacy must pay attention to the characteristics of the material and the characteristics of students. Problem-Based Learning is a learning process that exposes students to a real problem that spurs students to research, describe, and find solutions [13].

At the stage of developing problem-based learning on the theory of multiple intelligences, it is very necessary to do, the majority of teachers agree on this linkage, this is because the concrete operational stage for children aged 10 to 12 years is very necessary. Teachers have understood that children's learning styles are indispensable for information processing. The development of learning based on the theory of multiple intelligences will have an impact on their enthusiasm to learn optimally. Learning with problem-based learning based on multiple intelligences will attract students' interest in learning materials. The learning process with this approach has an impact on students because they have a high interest in learning so that the material taught using multiple intelligence-based learning will be more meaningful [14].

Based on Table 2., the teacher agrees with the effort to realize scientific literacy by developing a problem-based learning model. This learning model has stages to train students to
think critically. Problem-based learning makes students analyze and conduct scientific experiments systematically, this can increase students' scientific literacy. Experimental activities using practicum tools will improve and increase students' scientific literacy [15]. Problem-based learning activities are adapted to reform and create innovative direct instruction approaches in developing new situations such as scientific literacy which is currently the benchmark for PISA.

4 Conclusion

The conclusion in this study is that in implementing the 2013 curriculum and the dynamics of science learning in elementary schools, it is necessary to develop a problem-based learning model combined with multiple intelligence theory to realize students' scientific literacy. Elementary school teachers provide assessments for the development of learning models to prepare their students to adapt to 21st century learning and the various supporting competencies.

Acknowledgment

Our gratitude goes to the Muhammadiyah elementary school teacher in the Magelang district who has stated so that research data can be collected properly. To the Yogyakarta State University Postgraduate Program which has provided a forum for researchers to conduct research development.

References


Tax Avoidance Practices: Is it Only Affected by Financial Performance?

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Abstract. Tax avoidance is an effort to reduce the tax that is done legally and securely for taxpayers because it does not conflict with the taxation provisions. The study aims to test empirically about the influence of Profitability, Capital Intensity, Inventory Intensity, and Thin Capitalization against tax avoidance. The research methods used are quantitative methods. The population in this research is all manufacturing companies listed on the Indonesia Stock Exchange (IDX) period 2015-2018. Data retrieval as a sample in this study uses purposive sampling. The Total number of companies used in the sample is 43 manufacturing companies. Data was obtained from the financial statements of 43 manufacturing companies listed on the Indonesia Stock Exchange from 2015 to 2018. The data analysis methods in this study used multiple linear regression and classical assumption tests including descriptive statistical trials, test normality, multicolinearity tests, autocorrelation tests and heteroskedastisity tests. The hypothesis testing was conducted using a coefficient of determination (R²) test, F test, and T test. The results showed that profitability and Capital Intensity have a negative impact on the company's tax evasion. Meanwhile, Inventory Intensity, and Thin Capitalization have no effect on the company tax avoidance.

Keywords: Profitability, Capital Intensity, Inventory Intensity, Thin Capitalization, Tax Avoidance

1 Introduction

Tax is one of the primary sources of income in Indonesia. Taxes play a role in supporting the development of a country. Levies and taxes can fund regional developments and create community welfare [1]. Based on data released by the Directorate General of Taxes, every year, the target of state tax revenues tends to increase. However, in its realization, during 2015-2018, the set target has never been achieved. The tax revenue target that has not been achieved indicates that tax collection in Indonesia has not been carried out optimally. One of the obstacles to optimizing tax revenue by the government is tax avoidance or everything that companies do to reduce the company's tax costs [2]. Tax avoidance is an activity carried out by taxpayers to minimize taxes owed where the activities carried out are still within the framework of laws and regulations [3].

Tax avoidance is a contradiction between the state and the company. For the state, taxes are a source of income, so the government is trying to increase tax revenues according to the State Budget [4]. However, tax is a burden for the company that will reduce net income; the company does tax avoidance by minimizing tax payments.
Based on this case, it shows that there are several ways for companies to avoid tax. Tax avoidance is intended, so that small companies bear the tax burden. Several factors influence a company in paying taxes. According to Dwiyanti & Jati [5], the factors that influence tax avoidance are profitability, capital intensity, and inventory intensity. Andhari & Sukartha [6] shows that profitability harms tax avoidance. Meanwhile, the study by Dwiyanti & Jati [5] states that profitability through ROA indicators has a positive effect on tax avoidance. Dwiyanti & Jati [5] shows that capital intensity has a positive impact on tax avoidance. Meanwhile, research by Muzakki [7] shows that capital intensity harms tax avoidance. Inventory intensity or inventory intensity is how much the company invests in its assets in the form of inventory intensity. Dwiyanti & Jati [5] stated that inventory intensity has a positive effect on tax avoidance. Meanwhile, research conducted by Darmawan & Sukartha [8], and Siregar & Widyawati [9] showed that inventory intensity did not affect tax avoidance.

This research is a development of Dwiyanti & Jati [5] research on the effect of profitability, capital intensity and inventory intensity on tax avoidance. The difference between this research and the research of Dwiyanti & Jati [5], firstly, this study adds a thin capitalization variable. Second, the research year used is from 2015 to 2018. Third, this study uses the Current ETR measurement tool for measuring tax avoidance. This study aims to empirically examine the effect of Profitability, Capital Intensity, Inventory Intensity, and Thin Capitalization on Tax Avoidance.

2 Literature Review

2.1 Agency Theory

Agency theory explains the conflict that will arise between shareholders and company management. The separation between shareholders and company management can cause problems, including the possibility of managers taking actions that are not under the wishes or interests of the principal. This conflict is called the agency problem or agency problem [10]. In the self-assessment system, the taxpayer acts as an agent for implementing tax obligations. The tax authorities act as the principal in the agency relationship. Taxpayers try to minimize the tax burden to protect their interests. Taxpayers’ efforts to legally reduce the tax burden are tax avoidance [11].

2.2 Tax avoidance

Tax avoidance is an effort to reduce taxes that are carried out legally and safely for taxpayers because it does not conflict with tax provisions, where the methods and techniques used tend to take advantage of the weaknesses contained in tax laws and regulations to reduce the amount of tax payable [12].

2.3 Profitability

Profitability is a determining factor in the tax burden because companies with higher profits will pay more taxes. On the other hand, companies with low-profit levels will pay lower taxes or even not pay taxes if they experience losses. With a tax compensation system, losses can reduce tax amounts that must be borne in the following year [13].
2.4 Capital Intensity

Capital intensity ratio is a company's investment activity associated with an investment in fixed assets and inventories. Capital intensity is proxied using the fixed asset intensity ratio. Fixed asset intensity is the ratio of total fixed assets to total assets owned by the company. The higher the capital intensity, the higher the company invests its assets in fixed assets [14].

2.5 Inventory Intensity

Inventory Intensity Ratio shows the effectiveness and efficiency of the company to manage its investment in inventory which is reflected in the number of times the stock is rotated during a specific period [15]. According to Harahap & Jiwana [16], this ratio describes the relationship between the volume of goods sold and the volume of inventory on hand. It is used as a measure of company efficiency.

2.6 Thin Capitalization

Thin capitalization refers to investment decisions by companies in funding business operations by prioritizing debt financing rather than using the equity in their capital structure [17]. The practice of thin capitalization is based on differences in the treatment of tax regulations on interest [18]. The cost of interest is a deduction element in the calculation of taxable income.

2.7 Framework and Hypothesis Development

The company's profitability describes whether or not the company's management is effective in managing the company so that it can achieve the expected target of the company owner. The higher the company's profit, the greater the tax burden that must be paid. A negative relationship exists between increased profitability and tax liability. This is due to the company's desire to increase its profitability, but at the same time, the company wants to reduce its tax payments so that company profits remain high [8], 2014). Based on this, companies that tend to avoid tax are companies that have high profitability.

H1. Profitability has a positive effect on tax avoidance.

Capital intensity or capital intensity ratio is a company's investment activity associated with the fixed-asset investment. The capital intensity ratio can show the efficiency of using assets to generate sales [19]. Agency theory explains the separation of the interests of the principal and the agent, which results in the company's operational activities being carried out by the management. Managers will invest company funds in fixed assets to take advantage of the depreciation as a tax deduction. Companies with a high capital intensity have a high depreciation expense on assets [5]. Companies that use capital intensity in reducing profits tend to avoid tax.

H2. Capital intensity has a positive effect on tax avoidance.

Inventory Intensity Ratio shows the effectiveness and efficiency of the company to manage its investment in inventory which is reflected in the number of times the stock is rotated during a specific period [15]. The company's investment in fixed assets incurs inventory costs (purchase costs, conversion costs, and other costs incurred until the inventory are in a condition and place that is ready to be sold or used). The price of stocks is a deduction from taxable income. When the company's taxable income decreases, the tax burden that must be paid by the company also
decreases. This is contrary to the government's interests as a principle that hopes that tax revenues will be carried out optimally. However, the company maintains its interest so that the tax burden paid remains low. The company tends to do tax avoidance through inventory intensity.

H3. Inventory Intensity has a positive effect on tax avoidance.

Thin Capitalization refers to investment decisions by companies in funding business operations by prioritizing debt financing rather than using the equity in their capital structure [17]. Agency theory uses three assumptions of human nature that encourage someone to take opportunistic actions to maintain their interests. When a company prioritizes debt financing in its capital structure, it creates a tax incentive in interest expense which can be treated as a deduction from taxable income. This difference in the treatment of interest and dividends can be a gap for opportunistic actions so that companies tend to do tax avoidance. As a result, the tax burden paid by the company is reduced. This is supported by research by Olivia & Dwimulyani [20], showing that thin Capitalization positively affects tax avoidance. Based on this description, the proposed hypothesis is:

H4. Thin Capitalization has a positive effect on tax avoidance.

The Tax Avoidance research model is presented in Fig. 1.

![Tax avoidance research model](image)

**Fig. 1.** Tax avoidance research model

### 3 Method

This study uses data on the financial statements of manufacturing companies listed on the Indonesia Stock Exchange in 2015-2018. The sampling technique in this study used a purposive sampling technique. Operational Variables is presented in Table 1.
Table 1. Operational Variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Measurement</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax Avoidance (Y)</td>
<td>$\frac{\text{Current ETR}}{\text{Pre tax income}}$</td>
<td>Ratio</td>
</tr>
<tr>
<td>Profitability (X₁)</td>
<td>$\frac{\text{Pre tax income}}{\text{Total Assets}} \times 100%$</td>
<td>Ratio</td>
</tr>
<tr>
<td>Capital Intensity (X₂)</td>
<td>$\frac{\text{Net Fixed Asset}}{\text{Total Assets}}$</td>
<td>Ratio</td>
</tr>
<tr>
<td>Inventory Intensity (X₃)</td>
<td>$\frac{\text{Total Inventory}}{\text{Total Asset}}$</td>
<td>Ratio</td>
</tr>
<tr>
<td>Thin Capitalization (X₄)</td>
<td>$\frac{\text{Total Liability}}{\text{Total Equity}}$</td>
<td>Ratio</td>
</tr>
</tbody>
</table>

Source: [21], [22], [13], [23], [17]

The data analysis method in this study used multiple linear regression and classical assumption tests, including descriptive statistical tests, normality tests, multicollinearity tests, autocorrelation tests and heteroscedasticity tests. The regression equation model is formulated as follows:

$$TA = \alpha + \beta_1 Prof + \beta_2 CI + \beta_3 II + \beta_4 TC + \varepsilon$$  \hspace{1cm}(1)

Information:
- $\alpha$ = Constant
- $\beta$ = Coefficient
- TA = Tax Avoidance
- Prof = Profitability
- CI = Capital Intensity
- II = Inventory Intensity
- TC = Thin Capitalization
- $\varepsilon$ = Residual regression

4 Result and Discussion

4.1 Assumption test

The number of research samples is 172. Classical assumption tests include descriptive statistical tests, normality tests, multicollinearity tests, autocorrelation tests and heteroscedasticity tests [24]. The test results show that the data meet the classical assumption test criteria required.

4.2 Multiple Regression Analysis

A multiple regression model is used to determine the effect of the independent variable on the dependent variable. Based on the multiple linear regression analysis results, the regression coefficient values are obtained, which are presented in Table 2.
Table 2. Multiple Regression Result

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>.134</td>
<td>.034</td>
<td></td>
<td>3.958</td>
</tr>
<tr>
<td>LN PROF</td>
<td>-.054</td>
<td>.010</td>
<td>-.448</td>
<td>-5.597</td>
</tr>
<tr>
<td>CI</td>
<td>-.090</td>
<td>.044</td>
<td>-.162</td>
<td>-2.031</td>
</tr>
<tr>
<td>II</td>
<td>.068</td>
<td>.067</td>
<td>.077</td>
<td>1.010</td>
</tr>
<tr>
<td>LN TC</td>
<td>-.009</td>
<td>.008</td>
<td>-.086</td>
<td>-1.068</td>
</tr>
</tbody>
</table>

a. Dependent Variable: TA

Based on the results of the regression coefficients in Table 2, the following regression equation is obtained.

\[ TA = 0.134 - 0.054\text{PROF} - 0.090\text{CI} + 0.068\text{II} - 0.097\text{TC} + e \]  

(2)

4.3 Coefficient of Determination Analysis

The coefficient of determination is used to determine how far the research model's ability to explain the variation of the dependent variable show in Table 3.

Table 3. Coefficient of Determination Analysis Result

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.462a</td>
<td>.214</td>
<td>.195</td>
<td>.0751226</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), LN_TC, CI, II, LN_PROF

Based on the coefficient of determination in Table 3, the adjusted R square is 0.195. This means that the ability of profitability, capital intensity, inventory intensity, and thin capitalization in explaining tax avoidance is 0.195 or 19.5%. In comparison, the remaining 80.5% (100% - 19.5%) is defined by other factors outside the research model.

4.4 F test

The F test is used to show that the model used in this study is fit. The results of the F statistical test is presented in Table 4.

Table 4. F test

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Regression</td>
<td>.256</td>
<td>4</td>
<td>.064</td>
<td>11.349</td>
<td>.000b</td>
</tr>
<tr>
<td>Residual</td>
<td>.942</td>
<td>167</td>
<td>.006</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1.199</td>
<td>171</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: TA
b. Predictors: (Constant), LN_TC, CI, II, LN_PROF
4.5 T-test

The t-statistical test shows how far the influence of the independent variables explains the dependent variables. The statistical results of the t-test can be seen in Table 5.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>.134</td>
<td>.034</td>
<td></td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>LN_PROF</td>
<td>-.054</td>
<td>.010</td>
<td>-.448</td>
<td>-5.597</td>
<td>.000</td>
</tr>
<tr>
<td>CI</td>
<td>-.090</td>
<td>.044</td>
<td>-.162</td>
<td>-2.031</td>
<td>.044</td>
</tr>
<tr>
<td>II</td>
<td>.068</td>
<td>.067</td>
<td>.077</td>
<td>1.010</td>
<td>.314</td>
</tr>
<tr>
<td>LN_TC</td>
<td>-.009</td>
<td>.008</td>
<td>-.086</td>
<td>-1.068</td>
<td>.287</td>
</tr>
</tbody>
</table>

Based on the test results indicate that profitability harms tax avoidance. The amount of profitability suggests that the company's performance is good and can carry out operational activities by its responsibilities. When the company has a good performance, the company can manage the income and taxes that must be paid. Tax planning done well on income will produce an optimal tax burden [25].

The test results show that capital intensity hurts tax avoidance. When the company has a significant capital intensity, the company's operational activities will increase and generate profits for the company. Large profits can meet the government's interests as a tax collector, so the realization of tax revenue becomes more optimal.

The test results show that inventory intensity does not affect tax avoidance. This happens because, usually, the tax law does not provide tax incentives for companies that have extensive inventories of goods [26].

The results of this test indicate that thin capitalization does not affect tax avoidance. This is possible because the thin capitalization of manufacturing companies in Indonesia does not create an interest expense in debt for tax avoidance purposes. However, the deficit appears for other purposes such as expansion and company operations [27].

5 Conclusion

Profitability and Capital Intensity harm tax avoidance. Meanwhile, Inventory intensity and thin capitalization do not affect tax avoidance. Manufacturing companies tend to avoid tax even when the company's performance and capital are small, even though the tax base is also small. These results have implications for users of financial statements, especially auditors and the government, to pay more attention to calculating the tax base for companies so that indications of tax avoidance can be detected.
References


The Freedom of Expression in Social Media based on Creator’s Moral Right: A Comparative Study

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Universitas Muhammadiyah Magelang, Magelang, Indonesia¹,²,³,⁴,⁵,⁶,⁷

Abstract. The problems in this study include the limitations of the right to integrity in moral rights concerning freedom of expression and the comparative protection of Moral Rights in Indonesia, France, America and Germany. This study is a normative juridical method with a statute approach, conceptual approach, and a comparative approach using primary materials, secondary materials and tertiary materials. The research specifications used are analytical descriptive. The technique of collecting data uses the library research method. The results of the study indicate that there is a limit for users in using the Work of others following Article 27-29 of the ITE Law and the principle of fair use in the provisions of Article 43-50 Copyright Law 2014, and in other clauses using Three-Step Test Analysis (TST). Comparing moral rights protection in Indonesia, France, America, and Germany show equality in regulations due to ratifying the Berne Convention. The fundamental difference is seen in the arrangements in the United States, which focus more on the principle of expediency (Creator Economic Rights) than Moral Rights as in the performance of the State of Indonesia, France, and Germany.

Keywords: Right of integrity, freedom of expression, fair use

1 Introduction

The international community has long recognized the existence of Copyright as one form of intellectual Work protected by Intellectual Property Rights (IPR). Related Aspects of Trade in Intellectual Property Rights (TRIPs) is one of the agreements signed by Indonesia in the General Agreement on Tariffs and Trade (GATT) documents in Uruguay. The birth of the TRIPs agreement in the Uruguay Round (GATT) impacts international trade and increasingly felt economic conditions that no longer recognize national borders.

The TRIPs Agreement is the most comprehensive international agreement. It is a unique combination of the basic principles of the General Agreement on Tariffs / Trade / GATT (specifically regarding the most favored national and state treatment) with substantive provisions on international intellectual property agreements, including Paris Convention for industrial property protection and the Berne Convention for the Protection of Literary and Artistic Works [1].

Copyright is one of the IPR classifications in the fields of science, art and literature. Based on the provisions in Law No. 28 of 2014, which is from now on referred to as the 2014 Copyright Act Article 1 point 1, it is stated that Copyright is the exclusive right of the Creator that arises
automatically based on the declarative principle after work is manifested in a tangible form without reducing restrictions in accordance with the provisions of the legislation.

Praja [2] reveals that the Creator certainly wants the results of his Work to be valued and to benefit from publications or commercial benefits. During this time, the recognition and protection of Moral Rights seem to have little place in society, especially in the digital era like today. Whereas in work can reflect the Creator's personality, the impact on Moral Rights that should not be punished by destruction, reduction of creation or other actions that cause interference to the personal Creator. Moral rights also protect the self-reputation of the Creator and show characteristics related to a good name, ability, integrity that the Creator only possesses because Moral Rights are inherent in the Creator even after the Creator dies.

However, the Creator's loss concerning his honor and reputation is difficult to measure. It is due to the absence of parameters to estimate losses for violations seen from integrity rights. It is because the perspective of society in general that considers "habits" is part of freedom of expression. The primary substance "everyone must have the right to freedom of expression" as if it were a fortress of defense as a form of self-actualization or, in other words showing his expression in public [3], [4].

The nature or principle of the Bern agreement is understandable, which aims to protect the author's rights (Copyright) in art, literature and science. The Bern Convention is not just an agreement on how Copyright must be regulated among its member countries. Still, this Convention sets out a minimum set of benchmarks that copyright laws in each country must meet because minimum protection standards cause differences in the conception of arrangements for the protection of moral rights for creators. Based on this, the problem is how to limit the right to integrity in moral rights concerning freedom of expression. So, it is necessary to compare the protection of moral rights in Indonesia with member states of the Berne Convention (France, America, Germany)

Based on the phenomenon and description above, it is interesting to reveal the freedom of expression in social media based on the right of integrity in creators’ moral rights by comparing the copyright laws in Indonesia, France, American, and Germany.

2 Method

The author uses a normative juridical approach, namely, that uses the conception of positivist legislation [5]. This concept views law as synonymous with written norms made and announced by official institutions or officials. The approach method in this study uses a statute approach, conceptual approach and comparative approach. The research material is primary material in Law No. 28 of 2014 concerning Copyright, Law Number 19 of 2016 concerning Electronic Information and Transactions, France Copyright Law, 1990 US Visual Artist Rights Act, Urheberrechtsgesetz Germany. Secondary materials include books, legal writings and legal journals, and tertiary materials including the Legal Dictionary and the Large Dictionary of Indonesian Language.

The research specifications in this study are analytical descriptive specifications with library data collection techniques. Data analysis methods are analyzed legally so that a comprehensive analysis description is produced.
3 Results and Discussions

3.1 The Limitation of the Right to Integrity in Copyright

The copyright contained Moral Rights, which are defined as rights inherent in the Creator that cannot be transferred or deleted for any reason even though the Copyright has been assigned. Moral rights include the right of the Creator to be mentioned in creation (the right of attribution or right of paternity) and the right of the Creator to prohibit others from damaging and mutilating their rights (integrity rights) [6], [7].

Moral Rights have meaning that refers to personal rights and have a non-economic dimension [8]. From this right, it can be understood that the dignity of the Creator reflected in the Creation must be respected and protected. The basis that work can reflect the Creator's personality is the originality factor of a copyrighted work originating from the Creator who can show creativity and moral relations between the Creator and his Creation [9].

Recognition of Moral Rights is also included in Article 27 of the Universal Declaration of Human Rights, which states, "Everyone has the right to protect the moral and material interests resulting from any scientific, literary or artistic production of which he is the author." That means that everyone has the right to receive moral and material protection for scientific, literary, or artistic works he creates.

Mainly regarding Moral Rights, the Bern Convention regulates it in Article 6bis, which reads: "...the author shall have the right to claim authorship of the work and to object to any distortion, mutilation or other modification of, or other derogatory action concerning, the said work, which would be prejudicial to his honour or reputation."

The concluded based on the explanation above, Moral Rights is a reflection of the Creator, based on the originality of the Creator's original Work, implicating the moral dimension of a Creator in his Creation. In addition, it can also be understood that other forms of disruption to copy works, such as changes or destruction, can also affect the Creator's person.

Regarding the context of IPR, the clause in Article 43-50 of the 2014 Copyright Act is commonly known as "fair use" [10], [11]. This provision is the scope of restrictions and exceptions made possible by article 13 of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs), which states that: "Members shall confine limitations or exceptions to exclusive rights to certain special cases which do not conflict with a normal exploitation of the work and do not unreasonably prejudice the legitimate interests of the right holder".

In the 2014 Copyright Act, there are actions related to Fair use, referred to as copyright restrictions and exceptions, including in the Copyright Act Article 43, which mentions acts that do not violate Copyright. The provisions of Article 44 to Article 51 of the Copyright Act state that there is no prohibition on the use of works but must mention or mention the Creator's name. Article 47 of the Copyright Act states that any library or archive institution that does not have a commercial purpose can make 1 (one) copy of the Work or part of creation without the Creator's permission or the copyright holder.

Copyright Law Article 48 states that copying, broadcasting, or communicating for Work for the information that says the source and name of the Creator in full are not considered a violation of Copyright with the provisions of the Work.

Copyright Act Article 50 states that every person is prohibited from making Announcements, Distributing or Communicating Creations contrary to morality, religion, morality, public order or defense and security.
However, in the context of freedom of expression and the provisions in the 2014 Copyright Act, these provisions are also regulated in the ITE Law [12]. When a user uses someone else's Work and publishes it to social media, if it damages the dignity and reputation of the Creator, the Author may submit a claim for loss under the ITE Law following Article 26 if it is done without the consent of the Author.

However, the regulation of fair use in Indonesia in the 2014 Copyright Act is still unclear from the 'reasonable interest' so that it needs to be interpreted if a legal dispute occurs in the future with an explanation of Article 44: "... balance in enjoying economic benefits etc. ",

Especially the view of the public in general where the constraints of IPR protection, including copyrights, among others, the community still considers IPR to be a public rights, which has a social function so that certain people do not mind if other parties copy their products.

Parameters or benchmarks for categorizing reasonable interests that are not contained in the clause Article 43-50 can be analyzed by the Three-Step Test (TST) doctrine or three testing steps as a reference to test whether the use of Creation by others causes harm to the Creator. As long as the use by the user passes the TST test, it can be said that the user does not violate the Work used. According to Joined [4], the Three-Step Test (TST) is a test that is used as a boundary between the Creator's Exclusive Rights and Special Rights and the principal balance to use (privilege to use). The Three-Step Test (TST) includes three stages that are cumulative and based on sequence, i.e. [13]:

a. Criterion 1: Basic Rule: limitation must be a specific unique case
b. Criterion 2: The first condition delimiting the basic rule: no conflict with a normal exploitation-compulsory licenses impossible.
c. Criterion 3: The second condition delimiting the basic rule: no unreasonable prejudice to legitimate interest-compulsory licenses possible.

Based on the description above, the author analyzes that the limitation of the right to integrity concerning freedom of expression must not conflict with Article 43-50 of the Copyright Act 2014. If there is no such clause, it can be tested using the Three-Step Test (TST). If the user's actions do not violate Article 43-50 of the Copyright Act 2014 and pass the TST test, it can be said that the user does not break the boundaries of integrity rights in the Creator's Moral Rights. Thus, users can freely express themselves because derivative works also receive protection in Copyright in the same way as original creations.

The statutory provisions, both the 2014 Copyright Act and the ITE Law, have set limits on users. It is explicitly regulated in Article 43-50 of the 2014 Copyright Act as a reference for users in expression. Other provisions are handled by the Creator if there is a work on social media that is perceived to disturb the dignity and reputation of the Creator.

3.2 The Comparison of Integrity Rights and Limitation of Copyrighted Works in Indonesia, France, America and Germany

There are similar arrangements regarding Moral Rights in Indonesia, France, America, and Germany because these countries are joined and ratified the Berne Convention to comply with the minimum standards of protection contained in the Berne Convention [14]. The difference is found in the conception of Moral Rights arrangements, especially in the United States. As Continental European countries, Indonesia, France, and Germany appear to have the same regulatory principle that Copyright is a perpetual, irrevocable (more inalienable) right and emphasizes that Copyright as part of human rights is not property right. In contrast to the arrangement in America as an Anglo-Saxon State, they are regulating Copyright as property
rights. The principles underlying American Copyright are valuable (more protecting the Creator's Economic Rights), following the opinions of Jeremy Bentham and JS Mills. These namely principles balance the economic interests of producers with the interests of consumers.

The second fundamental difference is that Moral Rights cannot be transferred in settings in Indonesia, France and Germany because Moral Rights are inherent rights in the Creator even to the Creator's death. Another thing in America is that Moral Rights can be transferred/transferred to the ownership of Moral Rights. The limitation of copyright regulation comparation between Indonesia, France, America and Germany is presented in Table 1 to 4.

**Table 1. Integrity Rights and Limitation of Copyrighted works in Indonesian Copyright Law 2014**

<table>
<thead>
<tr>
<th>Legislation</th>
<th>Right of Attribution/Right of Integrity</th>
<th>Limitations/Waivers/Consent</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Law Number 28 of 2014 concerning Copyright</td>
<td>Article 5(1) The moral rights as referred to in Article 4 are rights that are eternally attached to the Creator to: a. continue to include or not include his/her name on the copy in connection with the public use of the Work; b. use his alias or pseudonym; c. change the Work following the decency in society; d. change the title and sub-title of the Works; and e. defend their rights in the event of distortion of Works, mutilation of Works, modification of Works, or things detrimental to their honour or reputation.</td>
<td>The limitation on Indonesian Copyright Law 2014 can be seen in Articles 44-51.</td>
<td>Article 5 (2) The moral rights referred to in paragraph (1) cannot be transferred as long as the author is still alive. Still, the exercise of these rights can be shared by a will or other reasons in accordance with the provisions of the legislation after the Author dies. In the event of a transfer of the exercise of moral rights as referred to in paragraph (2), the recipient may waive or refuse the exercise of his rights on condition that the release or rejection of the movement of the rights is stated in writing.</td>
</tr>
</tbody>
</table>

**Table 2. Limitation of Copyrighted works in France Copyright Law**

<table>
<thead>
<tr>
<th>Legislation</th>
<th>Right of Attribution / Right of Integrity</th>
<th>Limitations/Waivers/Consent</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Law on Intellectual Property Rights (Legislative Section) (No. 92-597 dated July 1 1992, as last amended by Laws No. 94-361 dated May 10 1994, and 95-4 dated January 3 1995).</td>
<td><strong>Attribution</strong> Art. L. 121-1: A creator can enjoy the rights to his name, authorship and Work. This right belongs to the Creator. Eternal, inalienable and unchangeable. This right can be transferred to the heirs of the Creator. Or it can be given to someone else under the terms of a will. <strong>Right to reveals</strong> Art. L. 121-2. The Creator himself has the right to express his Work. The right to determine the method of disclosure and the right to withdraw the Work to improve the conditions that</td>
<td>The copyright characteristic Art. L. 111-1. The Creator can enjoy the rights to his Work, only by the fact of its creation, as an exclusive property that must be enforced on everyone. <strong>Attribution</strong> This right must include attributes of an intellectual and moral nature and attributes of an economic nature, as determined by books I and III of this Code. The existence or conclusion of a contract to be hired or serviced by the Creator shall in no way detract from the enjoyment of the rights granted by the first paragraph above.</td>
<td>Art. L. 111-3. Incorporeal property rights regulated in Article L. 111-1 must be independent of property rights in physical objects. The acquisition of such objects shall not entitle the acquirer of anything to the rights conferred by this Code, except in the cases mentioned in the provisions of the second and third paragraphs of Article L. 123-4. These rights must exist in the Creator or his successor who owns the rights, which may not require the owner of the physical object to make the thing available to them to exercise those rights. However, in the event of</td>
</tr>
<tr>
<td>Legislation</td>
<td>Right of Attribution / Right of Integrity</td>
<td>Limitations/Waivers/Consent</td>
<td>Information</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------</td>
<td>------------------------------------------</td>
<td>-----------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Title 17. Copyright Law (Copyright Law 1976 (Public Law 94-553 of October 19, 1976), last amended by Public Law 104-39 dated November 1, 1995) * | Section 106A. Certain Author rights to attribution and integrity (a) Right of attribution and integrity. Subject to section 107 and independent of the exclusive rights provided for in section 106, the Creator of the visual artwork (1) has the right (A) to claim the authorship of the Work, and (B) to prevent the use of his name as the Creator of any work of visual art that he does not create; (2) has the right to prevent the use of his name as the Creator of visual artwork in the event of a distortion, mutilation, or other modification of the Work which will harm his honor or reputation; and (3) subject to the limitations set out in article 113(d), entitled (a) to prevent any intentional deviation, mutilation, or other modification of the Work which would be detrimental to his honor or reputation, and any deliberate departure, mutilation or modification of the Work constitutes an infringement of that right, and (b) to prevent the destruction of a work of recognized status, and the intentional or unintentional destruction of that Work constitutes a violation of that right. | 106A(e) Transfers and waivers. (1) The rights granted by paragraph (a) may not be transferred, but those rights may be waived if the author expressly agrees to such waiver in a written instrument signed by the Author. Such an instrument should specifically identify the Work and use of that Work, where the waiver applies, and the waiver applies only to the recognized Work and use. In the case of joint Work prepared by two or more authors, a waiver of rights under this paragraph made by one such author waives such rights for all such authors.  
(2) Ownership of the rights granted by paragraph (a) concerning a work of visual art differs from ownership of any copy of that Work or Copyright or exclusive rights under Copyright in that Work. The transfer of ownership of any copy of the visual artwork or any copy or other exclusive right under copyright shall not constitute a waiver of the rights granted by paragraph (a). Except as may be agreed to by the Author in a written instrument signed by the Author, a waiver of the rights granted by paragraph (a) in respect of a work of visual art will not constitute a transfer of ownership of any copies of that Work, or ownership of any copyright or other exclusive rights under Copyright in that Work.  
(Added Pub. L. 101-650, heading VI, Section 603(a), December 1, 1990, 104 Stat. 5128.) | Section 106A(3) The rights described in paragraphs (1) and (2) of paragraph (a) do not apply to the reproduction, depiction, depiction, or other use of work on, above, or in any connection with the goods. whatever is explained in the sub verse (A) or (B) of the definition of “work of visual art” in section 101, and any reproduction, depiction, depiction, or other use of a work is not the destruction, distortion, mutilation, or further modification described in paragraph (3) paragraph (a).  
(d) Duration of entitlement. (1) Concerning works of visual art created on or after the effective date set out in section 610(a) of the Visual Artists Rights Act 1990, the rights granted by paragraph (a) will last for a period consisting of life Creator. |
4 Conclusion

Limitations on the right of integrity about freedom of expression must not conflict with Article 43-50 of the 2014 Copyright Law. If it is not contained in the clause, it can be tested using the Three-Step Test (TST). Suppose the copier's actions do not violate the clauses of Article 43-50 of the 2014 Copyright Law and pass the TST test. In that case, it can be said that the copier has not violated the limits in the right of integrity in the Creator's Moral Rights. The similarity in the regulation of moral rights in Indonesia, France, America and Germany is because these countries have joined and ratified the Berne Convention to comply with the minimum standards of protection contained in the Berne Convention. There is a clear difference in the conception of the regulation of Moral Rights, especially in the United States. Indonesia, France and Germany, like Continental European countries, seem to have the same regulatory principle that Copyright is an eternal right (perpetual), cannot be revoked (inalienable) and emphasizes that Copyright is part of Human Rights. Property rights. The second fundamental difference is that Moral Rights cannot be transferred either in the regulations in Indonesia, France and Germany because Moral Rights are eternally attached to the Creator even until the Creator dies. It is different in America that Moral Rights can be transferred/transferred to the ownership of Moral Rights.
References


The Enforcement of Election Criminal Law in Indonesia

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Abstract. The purpose of this study was to determine the regulation of election criminal acts in Indonesia and how to enforce the law. Election crime regulations are regulated in Law Number 7 of 2017 Concerning Elections, namely Article 488 through Article 554. Election criminal law enforcement in Indonesia there are 116 cases consisting of 29 cases of money politics, 22 cases of acts harming election participants, 15 cases counterfeiting, 10 cases of campaigning in places of worship or educational institutions, 9 cases of campaigning outside the schedule, 17 cases of campaigning involving banned parties, 7 cases of campaigning using government facilities, 5 cases of destruction of props and 2 cases concerning the election of participants and their data still, then, in general, the implementation has run well even though at the level of implementation there are only weaknesses such as the substance of the regulation and sanctions for election crimes are multiple interpretations along with severe sanctions, from the structure in this case there are still law enforcement officers in this case GAKUMDU, Bawaslu, and the police. The weaknesses experienced by weaknesses such as in terms of budget, human resources and facilities and infrastructure aside from the side, culture namely the culture of the community which is still low in the awareness of elections in Indonesia, makes violations of election criminal offenses still high.

Keywords: Law enforcement, Criminal acts, General elections

1 Introduction

The Indonesian state adheres to the principle of "dynamic legal state" or Welfare State as stated in Article 1 paragraph (3) of the 1945 Constitution of the Republic of Indonesia which formulates "The Indonesian State is the State of Law". The rule of law is the basis for a country in carrying out actions that place the principle of legality as the basis for the actions of a country.

Elections are a medium for power change in the democratic climate of Pancasila in Indonesia. In addition to the General Election (PEMILU), there is also a Regional Head Election (PILKADA), between elections and elections to regions based on existing regulations in Indonesia carried out simultaneously by the schedule set by the General Election Commission. Elections have an important meaning in a democratic country, because they relate to three main functions, namely (1) Political legitimacy, through elections, the legitimacy of the government or the ruler is confirmed because the elected government is essentially the choice of the majority of people who have sovereignty. (2) Circulation of the political elite. With elections, the circulation or replacement of the power elite is carried out more equitably, because it is the citizens who directly determine who is still considered qualified as a political elite and who is
not. (3) Political education. Elections function as a tool to conduct political education for citizens to understand their political rights and obligations. With involvement in the election implementation process, it is hoped that citizens will get direct lessons about how citizens should take part in the democratic system.

The General Election is a means of implementing people's sovereignty in the United State of the Republic of Indonesia based on the Pancasila and the 1945 Constitution of the Republic of Indonesia. The holding of the General Election aims to elect the people's representatives and regional representatives and to form a democratic, strong government and gain popular support to realize the national goals as the 1945 Constitution of the Republic of Indonesia. The application of democratic principles in the context of realizing people's sovereignty is expected to be a motivation in the implementation of general elections, and most importantly, to increase people's political awareness to participate actively in general elections for the realization of the ideals of a democratic Indonesian society.

The legal basis for general elections in the constitution is Article 22 E of the 1945 Constitution. Whereas elections to regions are regulated in Article 18 paragraphs (3) and (4). Election trips and regional head elections in Indonesian history began from 1955 until now.

The principle of elections is based on the mandate of the constitution and laws and regulations, namely direct, general, free, confidential, honest and fair. To maintain this principle, various rules in the process of general elections and regional head elections have been made, one of which is that governs the criminal acts of general elections and regional head elections.

There are still many violations of general election crimes, making the election process must be reviewed so that the process is by the principles and objectives of the election. Law enforcement in the criminal act of elections in Indonesia in material and formal terms must emphasize the principles, principles, and values of electoral in Indonesia.

2 Method

The method used in this study was a normative juridical method. This method was used to analyze secondary data related to the problem under study by applying library research. The collected data were then analyzed qualitatively.

3 Results and Discussion

3.1 The regulation of election criminal in Indonesia

The legal basis for general elections in Indonesia is regulated in Article 22 E of the 1945 Constitution paragraph (1) to paragraph (6), namely: (1). Elections are held in a direct, general, free, confidential, honest and fair manner every five years. (2). Elections are held to elect members of the People's Legislative Assembly, the Regional Representative Council, the President, and vice-president and the Regional People's Representative Council. (3). Participants in the general election to elect members of the People's Legislative Assembly and members of the Regional People's Legislative Assembly are political parties. (4). Participants in the general election to elect members of the Regional Representative Council are individuals.
General elections are held by a national, permanent and independent election commission. Further provisions regarding general elections are regulated by law.

The legal basis for operational elections in 2019 is Law No. 7 of 2017 concerning General Elections. In the provisions of the regulation, there are 77 election criminal offenses regulated in 66 Article provisions, namely from Article 488 to Article 544. While the legal basis for the election of regional heads is contained in Law number 10 of 2016 concerning the Second Amendment to Law Number 1 of 2015 Concerning the Establishment of Government Regulation instead of Law Number 1 of 2014 Regarding the Election of Governors, Regents and Mayors Become Laws.

Crimes in the electoral field, in addition to being regulated in the Election Law, are also regulated in the Criminal Code and other laws and regulations. Although in the Criminal Code and other laws and regulations do not explicitly declare such acts as an election crime. Some provisions relating to criminal offenses in the electoral field which are explicitly regulated in the Criminal Code are contained in Chapter IV with the title Crimes Against Conducting Obligations and State Rights, Articles 146 through 153. There are also Article provisions that are not directly related to the Election but the qualifications of their actions are threatened in the Criminal Code. In this case, for example, the requirements of candidates for Regional Heads / Deputy Regional Heads are falsified so that they meet the administrative requirements to participate in the pair of candidates to be elected. If this happens, the qualifications for the action are included in the formulation of Article 263 of the Criminal Code concerning the falsification of the letter. Law enforcement against criminal offenses in the field of Elections outside the Criminal Code is carried out concerning the Criminal Procedure Code. So that the procedure for the same procedure with the procedure for other general criminal acts. Whereas the criminal act of Pemilukada is a crime that occurs during the stages of the holding of the Election of Regional Head / Deputy Regional Head, namely starting voter registration, campaign period, voting, vote counting, etc. [3].

In the 2019 general election based on general election rules. There are several kinds of subjects (perpetrators) of election crimes namely, each person (as many as 22 criminal acts out of 77 election criminal acts). This is commonly called communal offense (a crime that can be done by anyone). And the rest, as many as 55 criminal acts constitute the offense of Prophecies (criminal acts with certain subjects / not everyone), in Law No. 7 of 2017 the subjects vary, namely the organizers of the General Elections starting from the lowest (Voting Organizer Group) to the highest (General Election Commissions). There are 23 election criminal offenses out of 77 election criminal offenses, or around 18 percent of all election criminal offenses the subjects are election organizers from the Chairperson of the KPU to the KPPS. Election Supervisors from the lowest to the highest are subject to criminal acts in 3 (three) Election criminal acts. While the election campaign organizers, election campaign participants, election participants, presidential and vice-presidential candidates and leaders of political parties are the subjects of 13 election criminal offenses. This means that more criminal acts are threatened by election organizers compared to campaign organizers, campaign participants, election participants, candidates for President and Vice President, and leaders of political parties [4].

The many types of election law problems are also linear with the large number of institutions involved in handling it. There are at least nine institutions involved namely: (1) Election Organizer Honorary Council (DKPP), (2) Supervisory Board Election (Bawaslu); (3) General Election Commission (KPU); (4) National Police; (5) Attorney; (6) State Administrative Court and Administrative High Court Country; (7) District Courts and High Courts; (8) Supreme Court; and (9) Constitutional Court. Not to mention the involvement of the Broadcasting Commission or the Council Press to oversee the reporting and advertising of
campaigns. So, at the very least there will be 10 institutions related to the resolution of election law problems. The many types of problems and the many parties involved show so complex is the electoral legal problem, or at least a legal problem election is designed so complex. Let alone to carry out, understanding it also requires extra energy so that no misunderstanding will result fatal in its implementation. In turn, law enforcement election crimes also face various problems, both because of the content of the rules which is not too supportive or due to law enforcement and cultural factors [5].

Criminal election in Indonesia in its development through many changes in the form of an increase in criminal until differences on the addition of criminal sanctions. This is because the more the criminal election increasingly become increasingly serious concern because the measure of success of the democratic state held his views on the success of the election. The government then tighten the law on elections to further aggravate criminal sanctions for perpetrators of criminal election. Furthermore, with the hope and that with the Act No. 7 of 2017 as Law. The latest law on election of members of DPR, DPD and DPRD as the rules of elections that have been refined from the previous Law. This Act has been anticipating the event of a crime and affirmed that there are 4 (four) institutions involved in handling the criminal case elections Supervisory Committee Election (Bawaslu), police, prosecutors, and courts. It can be said that criminal election is seen as something forbidden act of serious nature and should be completed within 7 shorts, in order to achieve the purpose of organized criminal provisions to protect the democratic process through elections. As stipulated by the reforms, that the holding of elections for the future must be made and implemented in a better quality. In the elections despite the law. Law and special regulations concerning the elections in order to run properly, but there are still some violations and fraud. Violations and fraud were done by the organizers of the election, the election participants even by the people themselves.

Authority Election dispute resolution which is divided into many institutions is also demanding simplification is done. That fact wants it to do reconstruction related to the resolution of all types of election legal issues, including election results dispute. Related to that, one of the proposals offered through This paper is the simplification of a settlement system and a judicial institution involved in dispute resolution. Where, for dispute resolution the election results remain the authority of the Constitutional Court, while the dispute resolution elections, local election disputes and local election outcome disputes are handled by special courts election. The role of the intended election court will be carried out by Bawaslu which will transform into a special election court [6].

3.2 Election Crime Law Enforcement in Indonesia

Law enforcement of election criminal acts in Indonesia is based on a separate procedural law system, namely in the investigation process carried out by the Election Supervisory Body, then in the investigation carried out by the police, prosecution is carried out by the public prosecutor and the examination is carried out by a judge in the district court and the high court on appeal.

Elections are a tangible form of the concept of democracy which is believed to be one of the principles of governance in Indonesia. But in the implementation of the democratic party on its way there are still deficiencies. Some things that are often highlighted are the rise of money politics in every leadership election in this country, ranging from village head elections to presidential elections may have become roots that are not easy to dry. One factor contributing to the rise of money politics is the lack of awareness among the majority of the Indonesian people that elections are the most effective vehicle for upholding people's sovereignty. As an
example, the existence of fictitious or fake voices often colors the party of democracy in this country. The public is less aware that the various incidents that had arisen earlier could be categorized as election crimes that had a strict sanction threat. Law No. 7 of 2017 concerning Elections shows the seriousness of the government in eradicating election crime through the formation of Gakkumdu. Gakkumdu as an integrated law enforcement center has an important role in handling election criminal acts. In Article 486 point (1) of Law No. 7 of 2017 explicitly explained the establishment of Gakkumdu intends to equalize the understanding and pattern of handling election criminal acts by the Bawaslu, the Indonesian National Police, and the Attorney General's Office of the Republic of Indonesia. The Gakkumdu members themselves come from the Indonesian National Police and prosecutors from the Attorney General's Office of the Republic of Indonesia. The topic of the issue that will be discussed in this article is the role of Gakkumdu in suppressing election criminal acts in the 2019 general elections [7].

Election criminal law enforcement mechanisms must meet the principles of democracy, so each judge's decision must always meet at least 3 (three) important perspectives including the perspective of material criminal law, the perspective of formal criminal law and the perspective of criminal conduct. First, the material criminal perspective contains behavior that is threatened with a crime, who can be convicted and various kinds of criminal sentences. In other words, material criminal law contains norms and penal sanctions as well as general provisions that limit, expand or explain the norms and penalties. Second, a formal criminal perspective (adjective criminal law) or commonly referred to as criminal procedural law, which can be interpreted in all regulations which contain the ways of the State in using its right to implement criminal law enforcement which has implications for the application of sanctions for material criminal offenders. Third, the perspective of criminal conduct or punishment cannot be separated from the criminal justice system. Article 270 of the Criminal Procedure Code stipulates that the Prosecutor carries out a court decision. How prosecutors carry out these decisions is regulated in the KUHAP implementation rules or other words, prosecutors who are not public prosecutors for a case may carry out a court decision [8].

There are 116 cases of criminal law enforcement in Indonesia, consisting of 29 cases of money politics, 22 cases of acts harming election participants, 15 cases of forgery, 10 cases of campaigning in places of worship or educational institutions, 9 cases of campaigns outside the schedule, 17 cases of campaigns involving parties which is prohibited, 7 cases of campaigns using government facilities, 5 cases of destruction of props and 2 cases concerning the election of participants and the election data.

Based on the data above, it can be concluded that there are still many criminal acts in the general election which are related to the legal system theory firstly, from the structural point of view, the role of integrated law enforcement (GAKUMDU) in which there are Bawaslu, police, and prosecutors have not been maximal in disseminating information about election criminal acts to public or participants of the election, besides that the human resources are still low, lack of budget and lack of facilities and infrastructure. Second, in terms of culture, namely the legal culture of the community regarding election crimes is still low and the culture of money politics is still rife.

The position of the Election Supervisory Board in the Indonesian administration system is one of the state election organizers in which its position is equal to the General Election Commission and the Honorary Council of Election Committee. Meanwhile, the authorities of the Election Supervisory Board include; receiving and following up on reports relating to alleged violations in the implementation of legislation governing general election; examining, analyzing and deciding on violations in general election administration; examining, analyzing and deciding on violations of money politics; and receiving, examining, mediating or
adjudicating, and deciding upon the resolution of election process disputes. Based on these authorities, the Election Supervisory Board as an institution is a super-body general election organizer in handling election violations [9].

In connection with this legal culture, according to Roger Cotterrell, the concept of legal culture explains the diversity of ideas about a law that exists in various societies and their position in the social order. These ideas explain legal practices, citizens' attitudes toward law and their willingness and unwillingness to file cases, and relative legal significance, in explaining broad thoughts and behaviors outside of practice and specific forms of discourse related to legal institutions. Thus, variations in legal culture may be able to explain much about the differences in ways in which legal institutions that appear to be the same can function in different societies [10].

4 Conclusion

Election criminal acts are regulated in Law Number 7 of 2017 Concerning General Elections, namely Article 488 to Article 554. Election criminal law enforcement in Indonesia there are 116 cases consisting of 29 cases of money politics, 22 cases of acts harming election participants, 15 cases of counterfeiting, 10 cases of campaigning in places of worship or educational institutions, 9 cases of campaigning out of schedule, 17 cases of campaigning involving banned parties, 7 cases of campaigning using government facilities, 5 cases of destruction of props and 2 cases regarding the election participants' marriages and about the list data general election, then in general implementation has run well even though at the level of implementation there are only weaknesses such weaknesses of the structure in this case there are still law enforcement officers in this case GAKUMDU namely bawaslu, police and prosecutors who experience weaknesses such as weaknesses in terms of the budget, human resources and as shutter and infrastructure in addition to that the culture of the community which is still low in election awareness in Indonesia makes violations of election crimes still high so it is necessary to increase public legal awareness through socialization, workshops, seminars, education and training on electoral regulations especially regarding election criminal acts to the public.

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References


[6] Harun, Refly, Reconstruction of Authority in the Settlement of Dispute Over the Result of General Election, Jurnal Konstitusi, Volume 13, Nomor 1, Maret 2016


Indonesian Model Foreign Direct Investment (Omnibus Law): Learning from China

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Abstract. The paper responds on critical aspects between Indonesian Foreign Direct Investment Regulation (FDI) Act and China Foreign Investment Laws (FIL). China is relatively more developed, socially and economically over other countries, as viewed by scholars and foreign investors as an ideal place for foreign direct investment, partly due to its well-educated population, low labor costs, natural resources, and the adoption of an open-door policy. China have made remarkable FDI accomplishment through their own ways. Meanwhile, Indonesia is using an omnibus legislative strategy to entice foreign investors to invest in the country by modifying 74 FDI regulations. The study took a comparative approach to normative legal research. In addition, the goal of this study is to introduce the FDI legal model to Indonesia. And explores the debate issue on whether creating the omnibus law is a contradiction to Indonesian legal system. Moreover, intends to conclude by arguing that Indonesia should reconsider the omnibus law approach and refer to the lesson from the experience of China and Singapore.

Keywords: Foreign direct investment, omnibus law, china

1 Introduction

As modern businesses develop opportunities in a globalized market, FDI has become a key issue of discussion on corporate boards around the world. Businesses are discovering that failure to participate in foreign direct investment could spell their doom in today's economy, which operates on a larger scale than ever before [1]. Southeast Asia's export-led growth has heavily relied on FDI.

FDI from developing countries has increased significantly in recent years, particularly since the mid-1980s. This period also saw the initial stages of a shift in the motivations for those countries' FDI flows. Recently, their enterprises have increased their reliance on outward FDI as a strategic tool for enhancing their international competitiveness..

The United States officially removed Indonesia and a number of other nations, including South Korea, Thailand, Singapore, and Vietnam, from the list of emerging and developing countries in February 2020 [2]. Under the World Trade Organization's Agreement on Subsidies and Countervailing Measures, Indonesia will no longer qualify for special differentiated treatment (SDT).

In order to handle this new international situation, Indonesia as a developed country has tried to revise her investment regulations and creates an omnibus law as the solution to attract...
foreign investor to invest in Indonesia. This is a strategy to develop the country’s economy. Foreign direct investment first entered Indonesia in the Suharto era, and has been exist until nowadays. FDI in Indonesia has grown rapidly in developing infrastructure and some strategic industries. But the number of foreign investors remain limited, some foreign investors are not interested in investing in Indonesia because of Indonesia’s strict investment regulation. High labor cost is also one of the considerations for foreign investors hesitating in investing Indonesia. On the other hand, the momentum of investment reallocation from China provides an opportunity to invest to Indonesia today.

To improve the ranking and increase the number of foreign investors to make improvement for Indonesian economic conditions, on October 2019 President Joko Widodo gave a mandate to the parliament on making new regulations that can ease investment procedures and provide more incentives for investors. Indonesian President Joko Widodo's government proposed a draft bill to the country's parliament in February 2020. The "omnibus law," as it is known, is a draft that aspires to alter Indonesia's economy. On October 5, 2020, the bill of omnibus law has been promulgated by the House of Representatives as the job creation act.

Investment laws and policies are characterised by an understanding of the important role of investment in economic growth and development, as well as the significance of investment policies as a component of development strategies. It also fosters sustainable development by balancing social and environmental goals with economic growth and development goals through responsible investment. Furthermore, everyone agrees that improving the effectiveness of investment-promoting and encouraging policies is critical. These characteristics of new-generation investment strategies are reflected in specific national and international investment policy concerns [3].

In terms of FDI, it is necessary if Indonesia may learn lesson from other countries, such as China and Singapore. Foreign direct investment (FDI) has delivered China as a superpower a great deal of money and economic success, and it has played a crucial part in China's development. The legal culture and regulatory process, on the other hand, necessitate patience and perseverance. In 2019, China received the largest foreign direct investment in two years, although outbound investment fell as capital controls were implemented. FDI increased 5.8% year on year to 941.5 billion yuan ($136.71 billion), the highest increase since 2017, when it increased 7.9% in yuan terms. China remains the world's second-largest recipient of FDI. [4].

This article will examine the foreign direct investment legal model in China and its implementation of FDI regulation. Moreover, discuss and analyses the legal model of foreign direct investment in Indonesia related to the issues on creating an omnibus law and lesson learned from China.

2 Method

This study employs a statute-based approach and concentrates on the process of developing legal rules and legal doctrines in attempt to face legal issues in Indonesia. This research relies on secondary data. The information was gathered through library research and a review of legal documents. The literature is filtered for primary legal resources, secondary legal materials, and tertiary legal elements. The core legal materials are derived from 74 investment-related acts governed by Indonesian regulations. Secondary legal materials are those that are closely related to primary legal resources and can help with the analysis. They include: a. related scientific publications; b. journals and associated literature; c. the findings of connected studies; and d.
doctrines, views, and oral and written testimony from legal experts. Dictionaries and encyclopedias are examples of tertiary legal materials.

This research study takes a comparative approach, analyzing and comparing the Indonesian FDI legal model to that of China. Another approach is one that is applied to various laws or regulations relating to Foreign Direct Investment regulation and its implementation. The legal materials for this study, which include primary, secondary, and tertiary sources, were gathered from: a. various libraries; b. printed and electronic media.

Primary, secondary, and tertiary legal materials were used in this normative legal research. The method employed to gather these legal materials is known as documentary study. A documentary research analyses data related to existing legal regulations or documents.

In this study, the researcher uses qualitative prescriptive analysis, in which the researcher analyzes the subject and object of the research and provides an interpretation or disclosure. This study will also use a case study approach to analyze the issues raised by the Indonesian president's instruction to revise the 74th investment act and his proposal to create an omnibus law governing both domestic and foreign investment in Indonesia, and will then discuss the Indonesian FDI legal model and compare it to the Chinese FDI legal model. In this study, the researcher made no attempt to substantiate his or her findings.

3 Results and Discussions

3.1. Indonesian Foreign Direct Investment

The Foreign Investment Law, which was first passed in 1967 and revised in 1970, and again in 2007, governs foreign direct investment in Indonesia. Since 1970, a series of more or less annual deregulation measures in the form of new regulations produced by various ministries or agencies have been implemented. Each one makes it easier and more appealing for foreign investors to engage in Indonesia's economic progress.

Apart from Indonesian Law No. 40 of 2007 on Limited Liability Companies (often referred to as the "Company Law"), Law No. 25 of 2007 on Capital Investment is another important law governing (foreign) investment in Indonesia (henceforth "Investment Law"). The 2007 Investment Law, on the other hand, places a stronger focus on new investment, investment incentives, and investor rights. This Investment Law, which applies to direct investments in all industries, tackles all of the major issues that investors have when establishing a firm in Indonesia [5].

It is undeniable that the presence of foreign investors in Indonesia is one of the important factors in developing the country. Historically, foreign investment has good rate in the Suharto era. During of 1980 to 1997 until 1998 when the economic crisis happened, it had been a golden period of the growth of foreign investment in Indonesia.

The 2007 Investment Law covers both domestic and foreign investment. Foreign nationals and foreign-incorporated firms are the two types of foreign investors. Any "investment activity for the purpose of conducting a business" that is owned or financed in part by a foreign investor is considered foreign investment. Furthermore, any foreign investment in Indonesia must be made through an Indonesian limited liability company, according to the Investment Law (FDI Act).

Investment law establishes the general principle that all market fields are open to both domestic and foreign investment, with the exception of those that are expressly deemed closed
and those that are declared open to investment subject to conditions, such as limits on the amount of foreign ownership allowed. The legal basis for investment restrictions and requirements is a range of laws and regulations. The Investment Law, on the other hand, stipulates that these prohibitions be consolidated into a single Presidential Regulation. Presidential Decree 44/2016, which replaces Presidential Regulation No. 39/2014, is the most recent version of this "Negative List" of investment limitations and constraints.

The World Bank predicted economic growth in developing countries would drop to the lowest level in four years by 4% in 2019. The Indonesian government has sought to overcome the effects of financial pressures and weak economic growth by offering foreign investors interested in investing in Indonesia through the revision of 74 laws that could hamper the attractiveness of foreign investors.

In the last few years, the Government has been active in making efforts to attract investors to enter Indonesia. The policies undertaken include simplifying the licensing process by reducing obstacles to starting a business, especially in terms of licensing procedures, revising the Negative Investment List (DNI), and increasing tax incentives. The government argues that the revision of the DNI is part of efforts to promote sluggish economic growth and to attract the foreign investor.

President said this investment negative list can obstruct foreign investor to invest in Indonesia. Based on this situation, in 2019, Jokowi, as the president of Indonesia, gave an instruction to the new ministry to revised 74 investment Acts. President Jokowi hope that after revising the investment regulation Indonesia can attract more foreign investors to invest in Indonesia[6]. This is very interesting to be re-examined regarding the revision of the investment Act because it caused a lot of controversy and political interests.

Looking the fact that happened now in Indonesia, which the ratification of the omnibus law seems very rushed and there are lots of typos in the writing of the law. As a result, this has drawn a lot of controversy and arise public protest. The Indonesia omnibus law (recently known as job creation act) Indonesia's Omnibus Law which was passed on 5 October 2020 that sign by President Joko Widodo. Exhibits had started the omnibus bill in 13 January 2020. From the beginning, public society are protest with the government plan on issuing omnibus law.

So this raises a separate question for the author, whether to attract foreign investors requires a revision of the law or can be done in other ways. Then the authors want to see how the strategies of other countries such as China and Singapore in attracting foreign investors. And, using a comparative method research to learn from the experiences of China as a superpower country and Singapore as a major foreign investor in Indonesia, this thesis will explore and analyze the legal model of FDI in China and Indonesia.

3.2. The Model of Foreign Direct Investment in China

China's legal system was built by two the great tradition, namely the legal system which originates from the teachings of the philosophy of Confucianism, which rests on the devotion to the rules of moral law (called as: li = 礼 [Li] «禮»). And a legal system based on statute (called fa = 法), especially criminal law, as a legal product that kings attempted with the help of legal experts. The emergence of the concept of Li in the Chinese legal system, is based on the Chinese social structure in the kingdom era which is based on ethics derived from three schools of thought, namely: Confucianism, Taoism and Buddhism. Li is the closest keyword to the meaning of "law" according to legal conceptions in western countries, although sometimes Li is also translated as ritual, morals, etiquette, and certainty. Li is a set of rules of propriety and
decency that honest humans must heed. Thus Li shows more as a code of ethics in social relationships (moral rules) [7].

China has grown into a global economic superpower during the previous three decades. This level of transformation did not happen by accident; policies and new regulations paved the way. As a result, the legal system in China is still developing. The law contains gaps and ambiguities, and policy can change quickly and abruptly, not necessarily to everyone's favor. As a result, while there are economic opportunities and a strong legal framework to support them, the legal climate remains hard.

The People's Republic of China (PRC) has a legal system based on the PRC Constitution, which was last revised in 2004. Written legislation, regulations, and administrative directives are used to organize it in a hierarchical manner. The people, through municipal, provincial, and national congresses of representative people, exercise legislative authority from the bottom up, according to the Constitution. [8].

The FDI legal framework has been gradually formalized and clarified:

a. A basic notion for the development and operation of foreign economic entities was directed by the 1979 Law on Joint Ventures Using Chinese and Foreign Investment. It outlined a number of joint venture incentives and terms.

b. The Law on Joint Ventures Using Chinese and Foreign Investment Regulations of 1983 contained more information on joint venture operations and preferential policies.

c. The formation of totally foreign-owned firms outside of SEZs was explicitly permitted by the 1986 Law on Enterprises Exclusively Run with Foreign Capital.

d. 1986 Notifications for some further advancement of the situations for the implementation of foreign investment undertakings, as well as State Council regulations promoting foreign investment, provided additional incentives, particularly for FDI that used advanced technology and/or exported-oriented manufacturing. The Cooperative Joint Ventures Act of 1988 codified these provisions.

e. 1990 The revisions to the Implementing Regulations for Joint Ventures and Wholly Foreign-Owned Companies developed a more complete legal framework to make these undertakings easier to carry out. These laws/rules, in particular, removed the need that a joint venture's chairman of the board of directors be nominated by Chinese investors and established nationalization immunity.


According to the United Nations Conference on Trade and Development, China's total foreign direct investment (FDI) hit US$2.1 trillion at the end of 2018, putting it second in the world (UNCTAD). However, China's ease of doing business is ranked 46th in the world by the World Bank, trailing a number of countries including the United States, Malaysia, Germany, and Russia. It's simple to see why China needs a law like the FIL to create a more open and transparent business environment for foreign investment in this scenario.

Additionally, the law change may contribute to the establishment of a law-based environment that is more consistent with international practices in protecting foreign investors' legitimate rights and interests. The new law demands that local governments standardize their administrative procedures for foreign investment and ensure that their officials follow the law. Abuse of authority, disregard of duty, self-seeking misconduct, and the leaking of trade secrets are all examples of illegal activity that could lead to criminal charges. Furthermore, the integrated foreign investment administration law may eliminate future confusion for new foreign investors, making the process of investing and doing business in China more straightforward.
China who’s already success on attract FDI has some strategy that china use to handle their FDI, and here are some strategy that china used to attract FDI, and we can learn from those strategy, The strategy such as:

a. Tax concession, special privilege, and open economic zone policies
b. Legal Environment and low of Corruption
c. Low wage costs, and improved infrastructure
d. Strong Political Leadership.

3.3 Dilema of Establishment of Indonesian Omnibus Law

Omnibus legislation is defined as (1) a single measure that addresses multiple issues. To oblige the executive branch to either adopt or overturn all-important provisions established in this manner. (2) A bill that includes all suggestions on a single issue, such as a 'omnibus judgeship bill,' which includes all ideas for new judgeships, or a 'omnibus crime bill,' which includes new crimes and crime-control measures. (3) Omnibus bills are formal proposals to alter laws that rank-and-file legislators vote on and send to the executive branch for ultimate approval, similar to ordinary bills. The difference between omnibus bills and other bills is that omnibus bills contain a number of smaller bills that are nominally on the same general subject. Consider the omnibus tax bill: it might include adjustments to income, corporation, and sales taxes, but all of these concerns could be grouped together.

Simply describe an omnibus law or omnibus bill is a single Act that has the power to modify many laws. On September 28, 2017, Jimly Asshiddiqie stated three scenarios for practicing omnibus law, namely the Law to be amended directly, the Law to be amended is not directly related, and the Law to be amended is not directly related but in related practice.

Sofyan Djalil, the Coordinating Minister for Economic Affairs of the Republic of Indonesia at the time, was the driving force behind the omnibus bill in Indonesia. He argues that the investment process in Indonesia is still very difficult and convoluted. The length of bureaucratic chains, overlapping regulations across ministries, and the number of disharmony regulations are factors that hinder the ease of investment in Indonesia.

To make the processing of company licenses in Indonesia easier, the government enacted government regulation (PP) No.24 of 2018 on the Electronically Integrated Business Licensing Service, also known as the Online Single Submission (OSS), yet this isn't adequate. "There are at least 10 to 11 rules governing the licensing of enterprises and supposedly complicating investors," said Darmin Nasution, the Coordinating Minister for Economic Affairs of the Republic of Indonesia. To alter the 10 to 11 Act, an omnibus bill will be drafted.

More than 90% of the law is really intended to stimulate domestic and foreign investment by eliminating bureaucratic inefficiencies and excessive approval necessities because hazy, overlapping and contradictory regulations have long hindered competitiveness. The omnibus legislation amends 79 laws and removes thousands of products that detriment to business, investment and also draw foreign investors (FDI). The Indonesian House of Representatives was incited to underwrite the omnibus bill by the hopeless disappointment of very nearly 20 change bundles that were dispatched from 2015 to 2019. Those changes were to a great extent incapable on the grounds that their execution was sabotaged by the administrative cover and strife getting from around 80 laws just as a huge number of official guidelines and ecclesiastical announcements.

Thousands of Indonesians marched for the third day against a disputed law that opponents fear will hurt workers and the environment, after the bill (omnibus bill) was already changed into a regulation (job creation act). In Jakarta, hundreds of people have been detained. Hundreds
more have been detained this week as a result of strikes and protests in other towns. The administration claims that the reforms are required to help the country's economy, which has been hit hard by the Covid-19 outbreak. Demonstrations have gained traction in Jakarta, Tangerang, Banten, Bogor, Bekasi, Karawang, Purwakarta, Subang, Cimahi, Sumedang, Bandung Raya, Garut, Tasikmalaya, Indramayu, Cirebon, and Semarang, among other cities. Then there are cities like Yogjakarta, Solo, Blora, Gresik, Surabaya, Sidoarjo, East Kalimantan, Makassar, Lampung, South Sumatra, Riau, Jambi, North Sumatra, Batam, NTT, and others. Seven out of nine parties voted in favor of the omnibus bill, which is over 1,000 pages long and alters 79 existing laws.

The government believes that the employment growth act, often known as the omnibus law, is intended to simplify Indonesia's complicated web of commercial, labor, and environmental laws in order to speed licensing and bureaucracy. We want speed, so a legal harmonisation is required to provide speedy services and policy decisions, allowing Indonesia to respond to global changes more quickly. But in the reality, this regulation is from the nation is facing rejection from the nation. The 1,187-page law, which contains 79 statutory-level regulations, continues to face widespread opposition from the public, particularly labor groups, who view it as a "serious threat" to workers' rights. While a few labor organizations chose to challenge the law in the Constitutional Court, others chose to continue protesting it.

Simplification of Licensing, Investment Requirements, Employment, Ease of Doing Business, Empowerment and Protection of MSMEs, Research and Innovation Support, Government Administration, Imposition of Sanctions, Land Acquisition, Ease of Investment and Government Projects, and Areas Special Economics are all discussed in the Job Creation Act. The labor cluster is considered to have many controversial articles and has been heavily protested by workers. This cluster revises many articles in Law No. 13 of 2003 which have been managing labor issues in Indonesia. That workers rejected 7 things in the Job Creation Act, such as:

a. Full Requirement of Minimum Wage
b. Severance Payment is Reduced
c. Employment Contract without Limited Times
d. Lifetime Outsourching
e. Excessive Working Time.

4 Conclusion

In Indonesia the number of foreign investors is limited, in order to improve the number of foreign investors to make improvement for Indonesian economic conditions, on October 2019 President Joko Widodo gave a mandate to the parliament on making new regulations that can ease investment procedures and provide more incentives for investors. Indonesian President Joko Widodo's government proposed a draft bill to the country's parliament in February 2020. The "omnibus law," as it is known, is a draft that aspires to alter Indonesia's economy. The bill of omnibus law known as the job creation act was promulgated by the House of Representatives on October 5, 2020, and signed by President Joko Widodo.

This is the first time to create an omnibus law in Indonesia. Based on some scholar opinion, omnibus law is commonly used in countries with a common law system and Indonesia is a civil law system, this cause arise controversy. On the making proses of omnibus law also considered
not in accordance with the procedure because the lawmaking is done in a closed, not transparent, and does not provide space for civil society participation.

Foreign direct investment (FDI) has delivered China as a superpower a great deal of money and economic success, and it has played a crucial part in China's development. China's approach for attracting FDI include tax concessions, open economic zone regulations, the legal environment, legal culture, and regulatory procedure, minimal corruption, cheap labour costs, enhanced infrastructure, and political leadership.

References
The Level of Lighting and Ventilation on the Incidence Rate of Pulmonary TB

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Abstract. Pulmonary TB was the highest infectious disease in the world. TB eradication is the main focus of the government. Many factors can be affected the occurrence of pulmonary TB one of them is the condition of the home including lighting and ventilation. The purpose of this study was to determine the relationship between the level of lighting and ventilation on the incidence rate of pulmonary TB. The type of this research was correlational analytic with a case-control approach. Case samples are 40 patients with pulmonary TB, and control samples are 40 respondents who have not been exposed to pulmonary TB. The results of this study indicate there is a relationship between lighting at home with the incidence of pulmonary tuberculosis, with the value of the statistical test results $p = 0.036$. While the measurement of the relationship of ventilation with the occurrence of pulmonary TB mentioned no relationship with the value of the statistical test results $p = 0.309$. The conclusion is that lighting factors are a risk factor for TB incidents, so the community needs to arrange their homes to get adequate lighting.

Keywords: Level of lighting, Ventilation, Pulmonary TB, Incidence rate

1 Introduction

Tuberculosis is a disease of global concern; various control efforts have been made to reduce the incidence and death caused by tuberculosis. In Indonesia tuberculosis became the second rank with a number of cases is 10% of all sufferers in the world. While the new cases of tuberculosis in the world on the age under 15 years reached 1 million with a total of 140,000 deaths every year [18].

In 2014 at Central Java Province, the child cases proportion of tuberculosis had an incidence of 6.63%, this shows that the transmission of pulmonary tuberculosis to children was quite large. Acid Resistant Bacteria pulmonary tuberculosis positive adults infecting as many as 1,386 children and are successfully found and treated [3]. Environmental health includes all physical, social and biological factors from outside of the human body and all the factors that can influence human behavior. The conditions and controls of environmental health have the potential to influence health [17].

The agent and the environment, both of them are important factors for the transmission of Mycobacterium Tuberculosis from the sufferer to other people around the patients. Agents in the air can occur because the patient has spitting behavior in any place while the patient's droplet still contains Mycobacterium Tuberculosis. Environmental factors of the patient also increase the risk of transmission of Mycobacterium Tuberculosis such as a poor housing environment so
that it can increase the transmission of Mycobacterium Tuberculosis from the sufferer to their family members who are in the same house [7].

A home environment that can influence the high incidence of pulmonary tuberculosis is an unhealthy home environment such as less of good ventilation facilities, poor lighting in the room, residential solidity in the house and building materials in the house. In addition to the home environment that influences tuberculosis, physical environment, biological environment and social environment will also be detrimental to health and can affect tuberculosis and ultimately affect the high incidence of tuberculosis [10].

Mycobacterium tuberculosis likes humid places and it will grow in 31 - 370 optimally. One of the problems in lung tuberculosis cases is there are many people who still cannot have and provide healthy environment. Based on the data from tuberculosis analists, Sari et al [16], they stated that the number of houses with PHBS in Kebumen was increasing in past three years. However, if we take a look at in more detailed, it is still not equally implemented. In addition, the percentage of hospital in Kebumen in 2011 is only 65.76%.

This research is supported by Permatasari [14] which states that the factors can influence the success of pulmonary TB are: a) facilities of factors which include the availability of adequate and continuous medication, education of health cares, and administration of adequate drugs, b) patient factors which include knowledge, awareness and determination to recover, and personal hygiene, c) family and community environmental factors.

According to the Tuberculosis Situation Analysis in Kebumen [16], the trend of TB incidence in Kebumen Regency is increasing, and one of the causes is environmental factors. A healthy environment can be categorized if it has carried out community life behavior, especially the family itself that behave in a clean and healthy life. Based on data that has been obtaining that Kebumen regency experienced a quantitative increase in clean and healthy leaving behavior. However, in terms of quality, there are still residential buildings do not support the health requirements of homes that have healthy latrines, clean water, landfills, good ventilation, suitable residential densities and impermeable housing floors [10]. Based on this description above, the researchers formulated the problem regarding the relationship between lighting, ventilation against TB cases.

2 Method

This research used is a correlational analytic type with a case-control approach. Case population in this study were all patients with pulmonary tuberculosis who were on treatment or had been infecting with positive smear pulmonary tuberculosis in the working area of Health Centre care of Sempor 1 working area, as many as 40 respondents. The control population in this study were all people who were not patients with positive smear pulmonary tuberculosis or who had not been infected with pulmonary tuberculosis in the working area of Health Centre care of Sempor 1 and who did not live with pulmonary tuberculosis sufferers. The operational definitions in this study are 1) ventilation, which is the comparison between the area of the solidity wall of the house that functions to get in and out of the air with the floor area of the house, 2) the lighting in the bedroom of the patient with pulmonary tuberculosis, 3) Respondents who have been declared infected Acid Resistant Bacteria +tuberculosis by the Health Centre care of Sempor 1. The Data collection techniques in this study used direct measurement using a meter and Lux meter. 1) Meter, to measure the ratio of ventilation with a floor area of a house and measure the occupancy solidity of the room, 2) Lux meter, to measure room lighting.
Bivariate analysis was performed to determine the relationship between the independent variables and the dependent variable. In this study data analysis was carried out to determine the relationship of lighting with ventilation to the incidence of pulmonary tuberculosis (TB).

3 Results and Discussion

3.1 Relationship Between Ventilation and Pulmonary Tuberculosis in The Working Area of Health Centre of Sempor 1

Table 1 Correlation analysis of the relationship of home ventilation with the incidence of pulmonary tuberculosis in the working area of Health Centre of Sempor 1.

<table>
<thead>
<tr>
<th>No</th>
<th>Ventilation</th>
<th>Patients with pulmonary TB</th>
<th>No suffer pulmonary TB</th>
<th>p-value</th>
<th>OR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>F</td>
<td>%</td>
<td>F</td>
<td>%</td>
</tr>
<tr>
<td>1.</td>
<td>Qualified</td>
<td>8</td>
<td>10</td>
<td>13</td>
<td>16.2</td>
</tr>
<tr>
<td>2.</td>
<td>Not eligible</td>
<td>32</td>
<td>40</td>
<td>27</td>
<td>33.8</td>
</tr>
</tbody>
</table>

Based on table 1, it is known that the majority of respondents who suffer from pulmonary tuberculosis are followed by the condition of ventilation of houses that do not meet the requirements of 32 respondents (40.0%), and respondents who are not sufferers of pulmonary tuberculosis the majority of ventilation does not qualify the requirements of 27 respondents (33.8%). The results of statistical calculations show the p-value = 0.204 where α = 0.05 so that the p-value > α which means there is no relationship between house ventilation and the incidence of pulmonary tuberculosis.

Natural ventilation is measured by comparing the ventilation area with the floor area. Fulfilling the requirement or not a natural ventilation of the respondent's house can be caused by several things such as the area of the house that is not comparable with the area of ventilation and windows or ventilation made of glass that cannot be opened. Some of the respondents' houses have ventilation that can be opened and closed, but due to reasons for safety security of house, respondents choose not to open ventilation even in the afternoon.

Lyzigos [9] stated that closed windows causes’ poor house, ventilation thereby increasing the risk of TB transmission. Ventilation is a condition of a house that has sufficient air circulation in and out with a ventilation area of at least 10% of the floor area. Poor ventilation can affect the incidence of TB. A room with a ventilation area that does not qualify (<10% floor area) causes high humidity and temperature in the room due to less of air exchanges from outside the house, giving 10 TB bacteria the chance to survive inside the room due to the nature of TB bacteria who can survive in a dark and damp room.

The results of this study are supported by Riswanto's research [15], it shows that poor ventilation is more at risk of tuberculosis exposure. Important ventilation is in the house as a place for air circulation. Indoor air quality is affected by the presence or absence of ventilation which of course must meet the requirements of 10% wider than the floor. According to research by Fatimah [4], ventilation is also a risk factor for tuberculosis. The results of statistical calculations show the p-value = 0.204 where α = 0.05 so that the p-value > α which means there is no relationship between house ventilation and the incidence of pulmonary tuberculosis.
The results of this study are in line with the results of the study of Dewi, et al (2016) which states that there is no significant relationship between the area of ventilation of the house with the incidence of pulmonary TB (p-value = 0.226, OR = 2.212 and 95% CI = 0.718 - 6.817). Although the results of this study are not significant, the presence of ventilation can be a factor influencing the transmission of pulmonary TB, houses with less ventilation will affect the incidence of pulmonary tuberculosis.

Home ventilation functions to remove polluted air (bacteria, CO$_2$) in the house and replace it with fresh and clean air or for air circulation in which ultraviolet light enters. This is in line by Fatimah [4] research which states that the presence of ventilation has a risk of 5.17 times the transmission of TB (OR 5.17, CI = 95%; 1.55-17.9). In this study ventilation is a risk factor associated with the incidence of pulmonary tuberculosis. Natural ventilation that fulfills the entry of ultraviolet (UV) light into the house. UV rays can kill pathogenic bacteria including TB bacteria because of the nature of TB bacteria that are unable to survive if exposed directly. Natural ventilation, such as open windows, can be sufficient to provide adequate ventilation, even if mechanical ventilation is not available. Any ventilation system should be monitored and maintained regularly. If ventilation is not sufficient, HEPA filter or UVGI can be used as complementary measures. Personal protection provides additional benefit in TB prevention. Wears should select certificated respirators. Besides, the implementation of both fittest and fit check can improve the protective effect by increasing the likelihood of achieving an adequate fit [15].

Recognition of basic principles of TB infection control will be beneficial for both HCWs and patients to be protected from infection risks. There is a high estimated risk of TB transmission in traditional homes of infectious TB patients in rural South Africa. Improving natural ventilation may decrease household TB transmission risk and, combined with other strategies, may enhance TB control efforts.

There is little evidence that ventilation directly reduces the risk of disease transmission, but many studies suggest that insufficient ventilation increases disease transmission. A number of studies have looked at the possible transmission routes of diseases, but few have looked at the direct impact of ventilation on disease transmission. Detection of pathogens in room air and buildings may suggest a possible, indirect association between ventilation and disease transmission. However, other aspects (e.g. necessary infecting dose, the susceptibility of the host, infectivity of the pathogen, other environmental factors) are important for determining the ability of a pathogen to be transmitted. Therefore, data on the presence of pathogens in the air does not provide the full evidence for disease transmission and should be used in conjunction with other data (e.g. epidemiological data) [4].

Air volume is very important to be considered and to be used to make sure the air is sufficient in a room because if the room area is sufficient but the volume is not sufficient, the air circulation will not be smooth. House with minimal ventilation will supply insufficient fresh air. People need to have more ventilation in their houses. They also have to consider the volume of the room, so that they can provide the sufficient air for the people who live and stay in their houses. Based on the analysis about the orientation variable of the sunlight that comes inside the houses shows that there is a meaningful correlation between the sunlight that comes inside the houses and lung tuberculosis cases [5].
3.2 The Relationship Between Room Lighting and Pulmonary Tuberculosis in The Health Center of Sempor 1 Working Area

Table 2 The results of the Chi-square correlation analysis of the relationship of room lighting with the cases of pulmonary tuberculosis in the working area of Health Center of Sempor 1.

<table>
<thead>
<tr>
<th>No</th>
<th>Lighting</th>
<th>TB cases</th>
<th>Patients with pulmonary TB</th>
<th>No suffer pulmonary TB</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Qualified</td>
<td>F</td>
<td>5</td>
<td>6.2</td>
<td>14</td>
</tr>
<tr>
<td>2</td>
<td>Not eligible</td>
<td>F</td>
<td>43.8</td>
<td>26</td>
<td>32.5</td>
</tr>
</tbody>
</table>

The results of statistical calculations show the p-value = 0.018 where α = 0.05 so that the p-value <α which means there is a relationship between home lighting and the incidence of pulmonary tuberculosis. In theory and several studies, suggests that lighting can have a role in the transmission of pulmonary TB because TB germs can last a long time in a room, one of which depends on the availability of natural lighting containing ultraviolet.

In a humid and darkroom, germs can last for days or even months. Dead when exposed to sunlight, soap, Lysol, carbolic and fire heat, mycobacterium tuberculosis bacteria will die within 2 hours by sunlight; by iodic tincture for 5 minutes and also by 80% ethanol within 2 - 10 minutes and dead by 5% phenol within 24 hours. Houses that do not enter the sun have a risk of suffering from tuberculosis 3-7 times compared with a house that entered the sun. This is in line with the results of research Kurniasari [8] which states that there is a significant relationship between lighting with the incidence of pulmonary TB. This study is in line with the study of Moha and Wahyuni (2012) which revealed there was a relationship between natural lighting with 11 pulmonary TB events (p = 0.00 and p = 0.010) 6, 20. There was a significant relationship between natural lighting with the incidence of pulmonary TB related with the nature of TB bacteria that are not resistant to sunlight. Sunlight has the power to kill bacteria in at least 60 lux on condition that it is not blinding.

Respondents with natural lighting who are eligible have better access to sunlight. The lighting can enter through ventilation holes, windows, or doors that are often opened, or can be through glass tiles. Respondents with natural lighting did not qualify due to lack of access to light entering the house due to ventilation holes and windows that were rarely opened. Besides, some of the respondents' houses were blocked by light residents' houses next to them due to the condition of houses that were attached between one house and another.

The relationship between the levels of lighting with tuberculosis from the results of the study it is known that from 17 houses with 80% lighting experienced TB, while only 37.5% of houses with good lighting experienced TB events. This shows that there are still many residents who have in bad lighting it caused the level of education is still low (70.6% have educated up to junior high and less). To increase knowledge and understanding of the importance of the broad field of illumination, it is necessary to give education about the importance of the broad field of lighting with TB prevention. From the results of the study on the odds lighting ratio, the risk of 6.667 times is greater for pulmonary TB events than respondents who inhabit homes with a good lighting level. This is in line with the results of research conducted by Musadad, the results of his study showed that there was a significant relationship between direct sunlight and
the incidence of pulmonary tuberculosis. The relationship between the levels of lighting with tuberculosis from the results of the study it is known that from 17 houses with 80% lighting experienced TB, while only 37.5% of houses with good lighting experienced TB events. This shows that there are still many residents who have bad lighting it is caused by the level of education is still low (70.6% have educated up to junior high and less). To increase knowledge and understanding of the importance of the broad field of illumination, it is necessary to educate about the importance of the broad field of lighting with TB prevention. From the results of the study on the odds lighting ratio, the risk of 6.667 times is greater for pulmonary TB events than respondents who inhabit homes with a good lighting level. This is in line with the results of research conducted by Musadad, the results of his study showed that there was a significant relationship between direct sunlight and the incidence of pulmonary tuberculosis.

A research by Sahadewa [17] shows there is a correlation between lighting level and tuberculosis. Based on the result of research and odds ratio testing, poor lighting will raise risk to people have lung TB up to 6.667 times rather than respondents who live in the houses with sufficient lighting.

This research is different from Atmosukarto’s and Soeswati’s research that proves that people live in the houses with poor lighting significantly will have more risks up to 3-7 times to have tuberculosis rather than people live in the houses with sufficient lighting. Adnani shows that people live in the houses with poor lighting will have more risk up to 2.5 times more to have lung tuberculosis rather that people live in the houses with sufficient lighting in East Jakarta.

Healthy homes require adequate light, especially natural light in the form of sunlight (UV). Natural lighting is a lighting source that comes from sunlight that is all the way that allows for the entry of natural sunlight, for example through windows or glass tiles. This light is very important because it can kill pathogenic bacteria in the house, for example, TB bacteria. It should be noted that direct sunlight can enter the room, not blocked by other buildings. The entrance of light is related to the condition of the window function. Aside from being a vent, windows are also a light entrance. The entrance of natural light can also be cultivated with glass tiles.

4 Conclusion

The results of this study indicate that occupancy solidity, ventilation, and lighting do not have a relationship with the incidence of pulmonary TB. Further research needs to be done in identifying housing environmental risk factors on a broader scale with a larger sample of cases.

References


Ji Yeon Lee, M.D Tuberculosis Infection Control in Health-Care Facilities: Environmental Control and Personal Protection. 2016 Tuberculosis and respiratory disease


Muaz, F. (2014). Faktor-Faktor Yang Mempengaruhi Kejadian Tuberkulosis Paru Basil Tahan Asam Positif Di Puskesmas Wilayah Kecamatan Serang Kota Serang Tahun 2014. 12-


Sinergity of Actors Role for the Development of Tourism Sub-System in Borobudur

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Abstract. This study aims to see how the role of CBT Nusantara as the program implementer to maximize the potential of villages as a tourism sub-system of Borobudur. The methodological approach used is descriptive qualitative. Theory of the Role and Community Based Tourism is used to analyze the case. The results showed that there were still obstacles in several aspects, especially in making the program, because it had to be adjusted to the potential of each village that had not been well managed. Changing the mindset of rural communities related to the tourism potential development program in Borobudur District is a major challenge for CBT Nusantara. Participatory roles with the characteristics of active people and providing facilities and equal standing so that participation is balanced. Disseminating information, increasing community income, preservation and restoration of natural, human and cultural resources, and encouraging local community participation. The variety of roles to facilitate the community cannot be maximized given the problems in various complex villages. The strategy of Pentahelix synergy launched by the Ministry of Tourism is expected to further maximize the role of CBT Nusantara because tourism development is not only the responsibility of an party but all aspects of ranging from academics, the private sector, the community, the government and the media.

Keywords: Role, Community Based Tourism, Tourism

1 Introduction

The length of stay of tourists is still a major problem in the tourism sector in Magelang Regency. The head of Disparpora Magelang Regency, Iwan Sutiarso said that the length of the tourist visit in Magelang Regency was only between 2 to 3 hours, or less than half a day, because tourists only visited Borobudur Temple [1]. This causes the tourism sector to be suboptimal in Magelang Regency, which also has an impact on the lack of regional income. If it is optimized, the tourism sector can become a source of regional and even national income. The visit of foreign tourists contributed to foreign exchange receipts of 176-184 trillion rupiah (prognosis), from the 2016 target of 172 trillion rupiahs. The increase in the achievement of foreign exchange actually occurs when foreign exchange from coal and oil and gas commodities tends to decrease [2].

The tourism sector can become a source of regional and even national income if it maximized. The visit of foreign tourists contributed to foreign exchange receipts of 176-184 trillion rupiah (prognosis), from the 2016 target of 172 trillion rupiahs. The increase in the achievement of foreign exchange actually occurs when foreign exchange from coal and oil and gas commodities tends to decrease [2].
The program is organized by the Ministry of State-Owned Enterprise (SOEs) with CBT Nusantara as the executor of the assistance activities. This activity collaborated with 20 SOEs companies that developed 20 Balkondes [3]. Various kinds of local products and the uniqueness of each village become a tangible form of community development in the area. Balkondes also becomes a space for the emergence of products such as Bigaran Chocolate, Pottery Academy, Coffee Mejaksingi, etc., making this program provide a different village experience in each Balkondes assistance village. This program also uses the tagline "The Experience Village Atmosphere" [4]. This program is a form of implementation of Community-based Tourism by carrying out a concept oriented to the development of rural communities in Borobudur. The role of the community is the key to the successful implementation of this concept. In order to develop Community-based Tourism and increase the success of the optimization of the tourism sector.

The reality of the success of this program in terms of empowerment, is not in line with the main objective to increase the length of tourist visits. This program has been running since 2016. The reality is that until 2018 this program is still not very significant in increasing the length of stay of tourists [1]. Meanwhile, since the program has run three times there has been a change of managers including PT. TWC, PT. Patra Jasa, and in April 2019 management was handed over to CBT Nusantara under the auspices of the Ministry of SOEs to continue the program of the previous manager. This study aims to examine about, “the role of CBT Nusantara as program implementers in maximizing the potential of the village as a tourism subsystem of Borobudur”.

2 Literature Review

2.1 Role Theory

The term "role" is taken from the world of theater. In theater, an actor must reflect as a certain figure and in his position as a figure he is expected to behave in a certain way. Role Theory is very closely related to the name of socialization. Some sociologists call socialization a theory of roles. The role according to Soekanto is a dynamic process of status (status) [5]. If a person performs his rights and obligations according to his position, he / she performs a role. The difference between position and role is for the sake of science. The two cannot be separated because one depends on the other and vice versa. This role theory provides a conceptual framework in the study of behavior in organizations. Experts claim that the role "involves a pattern of product creation as opposed to behavior or action".

According to Dougherty & Pritchard for the Year in Baurer, the theory of cast provides a conceptual framework in the study of behavior in organizations. They claim that the role involves the pattern of product creation as opposed to behavior or action [6]. Role definition is a set of behaviors that are expected by others to be in accordance with the position of a system [7]. According to Soerjono Soekanto, roles are divided into three types, namely "Active Role, an active role of a person in an organization as measured by the contribution it provides," Participatory Role ", the role a person plays due to needs or only at certain times and" Role Passive ", a role that is not carried out by individuals who function as symbols in certain conditions in people's lives. In This Research Role theory is used as an indicator in assessing the performance of CBT Nusantara.
2.2 Tourism Villages and Community-based Tourism

Tourism Village is a form of village that is deliberately built and naturally has the ability to attract tourists because of the potential for natural and cultural attractions [8]. Natural abilities in the form of natural and cultural potential cannot be separated from the role of local communities as the main actors of tourism. Therefore, tourism activities should be activities that come from the community, carried out by the community and the results are intended for the community with the principle of community empowerment.

Tourism development based on community empowerment is an interesting idea, because it is a criticism of the development of conventional tourism (growth-oriented models) that are not in favor of the rights of local communities. Murphy argues that in essence the development of tourism cannot be separated from resources and the uniqueness of the local community which is the main driving element of tourism activities in the form of physical and non-physical elements such as tradition and culture [9]. Tourism should be seen as a community-based activity, known as Community Based Tourism (CBT).

Community Based Tourism (CBT) is a community-based tourism approach, where the community is placed as the main actor with community empowerment in various tourism activities. This has a big impact and benefits for the community, because the main purpose of tourism development is to improve the welfare of the local community. CBT is a tourism concept that considers environmental, social, and cultural sustainability [10]. With the concept of CBT, tourism is managed and owned by the community, with full benefits for the community, with the aim to enable visitors to increase awareness and knowledge about the local community and local wisdom they have.

Based other concept in study development Comunity Based-Tourism by Mohan J. Dutta, Communicating social change. In the process of social change from the perspective of Dutta, it always starts with “listening” [11]. In terms of “communication” and “communicating” are two different things. So, it is not only enough with communication but it must communicate. So that all elements in the development program feel involved in supporting the goals of development.

3 Method

This research was conducted with a qualitative descriptive approach with case study methods, by collecting data and observing directly on objects. The approach was chosen because according to the tradition of hermeneutic phenomenology, researchers must be free from subjectivity Techniques used to maintain objectivity, by collecting data from various sources [12]. Data collection was done by observation and interviews with managers of CBT Nusantara, Manager of Balkondes Wanurejo, Balkondes Tuksongo, Balkondes Tanjung Sari (Duta Menoreh), Balkondes Majakasingi, and Balkondes Ngargogondo

4 Result and Discussion

4.1 Operationalization of The Role in The Development of the Borobudur Tourism Sub-System
The development of tourism villages in the Borobudur region is an effort to prepare the tourism ecosystem. By maintaining local wisdom, Balkondes activities in Borobudur are expected to be able to carry out tourism development such as the Community Based Tourism (CBT) concept above. However, until now the data shows that the length of stay of tourists is still minimal, so that the tourism ecosystem has not been maximally developed.

Currently in the effort to develop tourism in the Borobudur sub-district, the Balkondes implementing facilitator CBT Nusantara. CBT Nusantara itself was formed in April 2019, as a continuation of the PT TWC and SOEs Patra Jasa program. In this study what is seen is the role of CBT Nusantara in the development of balkondes as a subsystem in the Magelang tourism ecosystem.

Departing from Dougherty & Pritchard's Role Theory (1985) the role capacity of a person, or body can be seen in three categories namely; Active Role, Participatory Role, Passive Role. The operational definition used in this research is focused on the role of CBT Nusantara. From this research, it will be seen how the strategy of CBT Nusantara's role is most effective in developing the tourism ecosystem.

An active role is if all Balkondes development activities come from CBT Nusantara. The participatory role is if all balkondes development activities are based on the collaboration of village and community officials with CBT Nusantara. The passive role is that in the balkondes development activities there is no contribution whatsoever on the part of CBT Nusantara.

In the Community Based Tourism (CBT) approach the role of the facilitator or program implementer must pay attention to community characteristics. Then the role should be adjusted to the characteristics of the community. So as to facilitate the development activities. Childers [11] said that:

“If you want development to be rooted in humans as development agents and beneficiaries, who will decide for themselves the type of development they can sustain after foreign aid is lost, then you need to be able to communicate with them, you have to give them the opportunity to communicate with one another, and return to the planners in the capital. You have to communicate the techniques they need so they can decide on their own development. If you don't, you will continue to have weak or failed development programs. As simple as that”. The most important point in development communication is knowing the character of the audience [11]. The fundamental principle of Development Support Communication Service (DSCS) is Know Your Audience. Then the role of the facilitator should be adjusted in the balalkondes program presented in Figure 1.

![Fig. 1. Execution of an ideal program executed by researchers from various sources](image-url)
The formation of the tourism ecosystem in Borobudur through the balkondes program does not necessarily just happen. The process of determining the potential development of 20 balkondes according to Seno, was taken based on the observation of CBT Nusantara for what potentials each village has.

"At first they had the potential for chocolate, but it was not careless. We have to do it so they can run the chocolate well ... How about 20 villages with different thoughts .... " [4].

Based on the results of observations of CBT Nusantara is known for the tourism potential of a number of villages with the balkondes program can be seen in Table 1.

<table>
<thead>
<tr>
<th>No</th>
<th>Name of Village</th>
<th>Highlights of the Potential Tourism</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Borobudur</td>
<td>Near Borobudur temple, Borobudur Coffee Pot, and classic transportation tool (Andong and VW)</td>
</tr>
<tr>
<td>2.</td>
<td>Bumiharjo</td>
<td>Traditional Children Toy</td>
</tr>
<tr>
<td>3.</td>
<td>Giritengah</td>
<td>Natural honey cultivation</td>
</tr>
<tr>
<td>4.</td>
<td>Karanganyar</td>
<td>Handicraft</td>
</tr>
<tr>
<td>5.</td>
<td>Karangrejo</td>
<td>Organic villages focus on natural resources (Stumbu Acid, Five Acids, Sendanu Widodaren, Puspitosari Sendang, Cemuris Cultures).</td>
</tr>
<tr>
<td>6.</td>
<td>Kenalan</td>
<td>Natural view of the plantation</td>
</tr>
<tr>
<td>7.</td>
<td>Kembanglimus</td>
<td>Natural view of the plantation</td>
</tr>
<tr>
<td>8.</td>
<td>Kebonsari</td>
<td>Bamboo industry</td>
</tr>
<tr>
<td>9.</td>
<td>Majakosingi</td>
<td>The coffee plantation is thriving</td>
</tr>
<tr>
<td>11.</td>
<td>Candirejo</td>
<td>Natural view, geological tourism, salty springs</td>
</tr>
<tr>
<td>12.</td>
<td>Bigaran</td>
<td>Traditional culinary, agro tourism</td>
</tr>
<tr>
<td>13.</td>
<td>Ngargogondo</td>
<td>Handicraft</td>
</tr>
<tr>
<td>14.</td>
<td>Giripurno</td>
<td>Etawa goat breeders, waterfalls, tourist parks</td>
</tr>
<tr>
<td>15.</td>
<td>Sambeng</td>
<td>Home industry of agriculture product</td>
</tr>
<tr>
<td>16.</td>
<td>Tuksongo</td>
<td>Digital Heritage Village</td>
</tr>
<tr>
<td>17.</td>
<td>Wanurejo</td>
<td>Experience tourism, handcraft, traditional culinary</td>
</tr>
<tr>
<td>18.</td>
<td>Tanjungsari</td>
<td>Tofu Central</td>
</tr>
<tr>
<td>19.</td>
<td>Tegalarum</td>
<td>Tobacco, herbs</td>
</tr>
<tr>
<td>20.</td>
<td>Wringinputih</td>
<td>Agriculture and natural view</td>
</tr>
</tbody>
</table>

4.2 Synergy of CBT Nusantara As Balkondes Trustee Partner

Prosperous and healthy communities are the cornerstone for a successful tourism industry [13]. Community is not the only factor to the success of the tourism industry. There are various indicators if can be synergized properly, will be the key to the success of Community-based Tourism: participation of local community, association and support from inside and outside the community, local ownership, local management and leadership, communication and interaction between stakeholders, preservation of tourism resources, distribution of benefit, quality of life, and the scale of tourist’s satisfaction and tourism development [14].

Balkondes is a form of community empowerment by SOEs through the activation of the tourism-based rural economic potential. With a background to develop rural economic growth and empower people in the Borobudur region. Through 20 Balkondes in 20 villages in
Borobudur District, it is hoped that it can accelerate the economy of the communities around Borobudur by increasing knowledge, skills, product innovation, and income. To achieve these expectations, CBT Nusantara was formed by the Ministry of SOEs.

The role of CBT Nusantara is to guard balkondes standardization, which is to market and introduce balkondes, improve service quality, as well as neat organizational and administrative governance. There are three incubation stages in balkondes, such as: 1) the economic activation scheme of rural communities, namely to open market access and increase human resource capacity, finance, production and marketing; 2) start-up, where sponsoring SOEs only contribute 25% while 75% is entirely the responsibility of Badan Usaha Milik Desa (BUMDes); 3) the community is ready to do entrepreneurship independently [15]. Accompaniment, CBT Nusantara is still at the initial level. As of the inauguration of CBT Nusantara as a balkondes management agency by the Ministry of SOEs in April 2019, there were two events held, which are Balkonjazz Festival and Balkonbike in collaboration with the Indonesian Journalists Association aimed at marketing functions and expanding market access by increasing balkondes brand awareness.

Balkonjazz is a design of economic activation of rural communities, by opening market access and marketing through festivals that combine local wisdom with music. By organizing Balkonjazz, tourists are expected to be able to increase the length of stay by utilizing homestay facilities and a variety of convenient facilities plus experience to experience the local potential in the area around Balkondes. With the Balkonjazz event, the number of visits to Borobudur has been proven by all lodging in 20 full balkondes, even homestays and hotels owned by local residents until large hotels are fully booked by visitors who incidentally are those who come to Magelang to attend the event of Balkonjazz. Balkonjazz helped boost the economy by providing space to encourage the potential and local wisdom where the surrounding community could promote and sell their homemade products in a venue provided as the balcony market [4]. But it is different from the Balkonbike event, where increased marketing can only be seen in the aspect of increased engagement in the media, both electronic and digital.

The Ministry of Tourism created the concept of integration of tourism Pentahelix. The assumption is that there are five elements of strength stakeholders who will support the success of tourism if they work together. The five stakeholders are Academics, Business, Government, Society, and Media [15]. Thus in the future it is expected that tourism development is not only the responsibility of one party, but there must be synergy between parties, not just the role of CBT Nusantara in the development of Balkondes in Borobudur District.

Society as a major component in community-based tourism development has a very important role in tourism development, especially for Balkondes. Participatory roles with the characteristics of active people and providing facilities and equal standing so that participation is balanced. With the dissemination of information, increasing community income, preservation and restoration of natural, human and cultural resources, and encouraging local community participation. But it is unfortunate, that the synergy of the community is still not optimal. Whereas the CBT concept carried out by Balkondes pays attention to aspects of community involvement, accentuates the traditions of the local community, the authenticity of the regional potential, the value of local wisdom, and the conservation of carrying capacity [9]. Community participation in development is determined by three main elements, namely the opportunity given to the community to participate, the community's willingness to participate and the ability of the community to participate [16]. The opportunity is given fully to the community, but there is an inequality in mastery of the balkondes themselves.

In some balkondes that already have an advanced potential such as in Balkondes Wanurejo, Karangrejo, Tuksongo. The advance potential is inseparable from the factor of the people who
already have advance village potential. But in some Balkondes it has been considered torpid because of the lack of community roles. The role of academics in Balkondes is still minimal. While the role of academics is very important in providing views and analysis based on data in the field regarding the level of development and also the right formula to advance balkondes as the wheels of tourism and economy in Borobudur District through various research, analysis and human resource development. Collaboration with the government as regulator, the private sector to the media as the mouthpiece of tourism coverage is still fairly minimal.

Originated from these problems, in the nature study of development communication in addition to focusing on participation. An approach that can be used is an attempt at social change. This effort can be done by starting the activity by “hearing of the needs” that exist in the community [11]. After listening, policy makers can conduct studies and adjustments in implementing a development program. It makes the public has a stake in every activity of development. The development in social change can be seen in Figure 2.

![Fig. 2. Development in social change](image)

### 5 Conclusion

Balkondes is a program that adapts the concept of Community-based Tourism with community engagement and civilization. By ensuring that the ownership and management of transparent balkondes is expected to increase the economic potential and local wisdom of the Borobudur community. The participatory role carried out by CBT Nusantara, by implementing an economic activation scheme for rural communities, namely to open market access and increase human resource, financial, production and marketing capacity. The community as the main focus of Balkondes is still not ready in terms of resources and potential. The existence of a monopoly of power because governance is not evenly distributed in Balkondes is the cause of the death of several Balkondes. The variety of roles to facilitate the community cannot be maximized given the problems in various complex villages. The participatory role carried out by CBT Nusantara for the management of 20 Balkondes in Borobudur District will surely stagger if it runs alone. The concept of the Pentahelix Tourism Integration proclaimed by the Ministry of Tourism as a solution is in fact still in jeopardy, where the community as the prime mover, the government as a regulator, academics, the private sector and the media are still not synergizing to the maximum.
Acknowledgement

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References


The Effectiveness of the Story Assistance Program to the Moral Aspects of ADHD Children in Kindergarten

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Abstract. The purpose of this study was to see how effective the story assistance program, which was carried out on 5-year-old children who had Attention Deficit Hyperactivity Disorders or ADHD, on the moral aspects. This program was carried out for 2 weeks using the SSR method. One kindergarten child who experienced ADHD was observed in one moral aspect, namely respect, seen from the affective, cognitive, and psychomotor components. The child was given an intervention for 2 weeks at school with stimulation with something that makes empathy, and then he was read a story and given a habituation to greet others. The initial observations indicated that the child had not been able to show empathy, did not want to hear let alone ask questions, and when given examples of greeting, he did not see and his views were not focused. Every day, the child was stimulated with something that creates a sense of empathy, told a story and habituated to greet for 10 times. The next step was intervention. In the first week, the result for empathy was 50%, for listening to stories was 55%, and for greeting others was 50%. In week 2 there was a 65% increase in empathy, 85% in listening to stories, and 80% in greeting habits. The results show empathy or affective feelings for children takes more time, especially for ADHD children. The program of Moral Assistance with stories was proven to be effective for improving the moral aspects of cognitive morals as a basis for reasoning.

Keywords: ADHD children, Moral affective, Cognitive, Psychomotor

1 Introduction

Early childhood / preschool is the most important moment of human life [2]. This is because at that age, the development of intelligence increase from 50% to 80%, and children begin to be sensitive to accept various efforts to develop their full potential [3]. This means that the early age ranges from 0-6 years old is a foundation for individual development at a later stage, as well as a foundation for the formation of behavior through habituation and practice that must be implanted.

One of the problems is that not all children can get through the process of development properly. Various developmental problems manifested in children's behavior in kindergarten in Yogyakarta, namely aggressiveness, anxiety, temper tantrums, concentrating difficulty, stuttering or communicating difficulty, avoidant personality, enuresis and encopresis, lying, crying excessive, dependent, timid, and excessive fear. Related to the above, the observations of kindergarten educators in several kindergartens in Yogyakarta show that in solving various problems that arise when children interact, children aged 4-6 years use aggressive strategies as much as 50%, passive strategies 48% and 2% other strategies.
Lately, there are many teachers or parents find difficulty in teaching their students or children. The difficulty is due to the lack of understanding and skill of teaching. However, the problems are not only from the teachers or parents but also from the students or children.

Based on an observation in a kindergarten, there was a 5 years old child with the initial BR who was always tireless and did excessive activities. The child often became easily impulsive, often irritated other children, often failed to complete activities that have been started, had short attention spans, always moved his body or head continuously, often lacked of focus and was easily diverted, sometimes became frustrated if his desires were not fulfilled, often blew up resentment with explosive and unexpected behavior. Those facts indicated attention deficit hyperactivity disorders or ADHD.

ADHD is a disorder indicated by persistent pattern of lack of focus, hyperactivity, and impulsiveness [1]. Children with ADHD show multiply difficulties in daily functions, including in the domains of academic, social, family, and behavior.

Children behaviors are various. Some of them are active and excited in following the lesson. However, there are some others who are passive, hard to be managed and cannot stay still, and have no will to pay attention to the teacher. This kind of children usually experience hyperkinetic disorder, which is commonly called hyperactive. Hyperactive children are those who experience problem with their focus. Teachers usually find difficulties in managing and teaching children with this condition because, beside the condition that the children can not be calm, hyperactive children also often disturb others and have difficulty in understanding what the teachers teach.

Moreover, hyperactive children usually have insufficient moral values. Therefore, it requires approaches to help hyperactive children maximizing their moral values. Therefore, the researcher conducted research on the effectiveness of the activity program to help the child with the initials BR so that the development of the child's moral values could increase.

2 Literature Review

Although there are some previous studies relating empathy with children's social behavior with peers, none has yet revealed how empathy exists in ADHD children and how to improve it. These findings indicate that a brief BPT managed group program for a variety of participants in a special outpatient management produces improvements in functional disorders comparable to those produced in controlled studies, as well as increased self-confidence in parenting [10]. Thus, the purpose of this study is to improve the moral aspects of respect with 3 components (a) affective moral empathy, (b) cognitive moral in listening to stories, and (c) Psychomotor morals with greeting habits. The ADHD assistance program by children's story is expected to be effective in improving moral aspects, namely respect.

Telling folk tales means teaching survival and socialization as well as reflecting the moral of the previous generation [12]. Moreover, telling story shows significant contribution to children’s learning and development related to imagination, concept of shaping and thinking, and out of themselves, socially, telling story can be important part of early childhood education.
3 Method

3.1 Participant

Participant in this study was a 5-year-old exceptional kindergarten child, with the initials BR. The child was always tireless and did excessive activities, often became easily impulsive, often irritated other children, often failed to complete activities that have been started, had short attention spans, always moved his body or head continuously, often lacked of focus and was easily diverted, sometimes became frustrated if his desires were not fulfilled, often blew up resentment with explosive and unexpected behavior. Those facts indicated attention deficit hyperactivity disorders or ADHD.

3.2 Action and Procedure

Research is a way to figure out and find answer of questions or problems systematically by using scientific methods. The method used in this research was experiment. Therefore, the researcher directly experimented to find the causality or effects among variables. The research design was Single Subject Research (SSR). SSR is experimental research conducted to figure out how much a treatment given continuously to the subject affects [11].

In Single Subject Research (SSR), basically, the subjects are treated in a state without treatment / intervention and with treatment / intervention alternately, and the target behavior is measured repeatedly with certain time periods such as weekly, daily, or hourly. Before conducting treatment or intervention, researchers first determine the target behavior (target behavior) to be changed. When in a non-treatment situation, the subject is given the symbol "A", and when in the treatment, the subject is given the symbol "B". After being able to determine the target behavior, the researcher then planed the behavior modification. According to the opinion of Sunanto, Takeuchi & Nakata [11], which state that determining the behavior to be changed in a modification program, is the earliest and most important activity. In terms of single subject research, the behavior to be changed is called target behavior. In the aspect of research, the target behavior is also known as the bound variable. Experimentally, to change behavior that is not adaptive, the habits that are not adaptive are weakened and eliminated, and adaptive behavior is generated and confirmed.

The research design used was a reversal design (A-B-A-B) because the design showed a stronger control over the independent variables compared to the A-B-A design. Therefore, the internal validity was increased so that the results of research showed functional relationships between dependent and independent variables were more convincing. By comparing the two baseline conditions before and after the intervention the effect of the intervention is more convincing. The independent variable used is PECS (Picture Exchange Communication System) method, while the dependent variable used is aggressive behavior in ADHD children. The steps taken in the design of A-B-A-B include 4 stages, namely: 1) Baseline 1 (A1), the average occurrence of behavior in a certain period after being measured through observation. At baseline 1 (A1), the moral aspect measurement of ADHD children was carried out in the initial conditions in a natural state before being given an intervention by the PECS (Picture Exchange Communication System) method. 2) Intervention 1 (B1), a condition of giving treatment repeatedly to reach a clear trend and level. The treatment will be given after the data becomes stable at baseline 1 (A1), the intervention given is learning using the PECS method (Picture Exchange Communication System). 3) Baseline 2 (A2), a condition of ADHD children after being given an intervention. In this observation, the measurements were taken using frequency
and seen from the number of moral aspects, namely affective in the form of empathy, cognitive in listening to stories and psychomotor with habituation of greetings seen from the quality that emerged. 4) Intervention 2 (B2) Interventions at this stage were carried out the same way as intervention 1 (B1), which was learning using the PECS (Picture Exchange Communication System) method, in which the baseline used was baseline 2 (A2). 5) Target Behavior, the behavior to be changed, the behavior which is expected to increase or decrease (disappear) depending on the purpose of the research. Behavior targets in behavior modification are thoughts or actions that can be recorded and measured. The target behavior in this research was ADHD behavior. To collect these data, the researchers used direct and indirect observation by recording and interviewing the teachers. Meanwhile, the calculation of the target behavior was done quantitatively.

4 Result and Discussion

4.1 Result

The results of observations before the intervention by the program of reading stories and habituation, the focus of observation was on the moral development of BR, showed that BR did not make eye contact when spoken to, and he lacked of focus and often did not listen. Therefore, for 2 weeks the intervention was carried out with a program of reading stories and habituation on moral aspects. Indicators of moral development that will be observed can be read in Table 1. The moral aspects observed were courtesy or respect consisting of 3 components: affective in the form of empathy which can respect softness with touch, moral cognitive in the form of listening to stories, and psychomotor by greeting courtesy with focused eyes.

<table>
<thead>
<tr>
<th>Indicator of Respect / Politeness</th>
<th>SCORE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Responding softness with a touch</td>
<td>If child has not responded yet</td>
</tr>
<tr>
<td>Listening to Stories and Answering Question</td>
<td>If the child has not answered</td>
</tr>
<tr>
<td>Greet with polite language and eyes focus on seeing</td>
<td>If the child has not greet</td>
</tr>
</tbody>
</table>

The results of 2 weeks observation at baseline A1 showed that the 5-year-old child with the initials BR has not shown tenderness even tend to be frontal, did not want to hear stories let alone ask questions and say hello. Then he was given treatment by intervening for 1 week repeatedly. The child was touched gently, read a story book with 10 children's story titles to be chosen every day, and trained to greet others. The results of the B1 intervention, which was
carried out during the 5-day mentoring program by reading stories by selecting the 10 stories that have been provided, showed improvement as shown in (Table 2). The increase was in building empathy by responding to softness called moral affective with a score of 10 or 50% of the expected score. On cognitive morals, with stories being read and children listening, the score was 11 or 55%, and the score of psychomotor moral / habitual behavior through greeting was 10 or 50%.

The results of B2 interventions carried out over 5 days with repetitive program activities, on the moral aspect of respect, showed the results as listed in (Table 3). There was an increase in scores in building empathy by responding to gentleness: affective morals with a score of 13 or 65% of the expected score, cognitive morals with a score of 17 or 80%, and psychomotor moral / habitual behavior obtained a score of 16 or 80%. In stage 5, the target behavior (behavior that was changed, i.e., the moral aspect of respect), a 5-year-old BR was proven to increase with repeated storybook mentoring activities as shown in table 4 and 5.

**Table 2. Recapitulation results week 1 of ADHD child moral improvement of respect**

<table>
<thead>
<tr>
<th>Moral Improvement (Respect)</th>
<th>Total Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responding to Softness by touch</td>
<td>10/20 (50%)</td>
</tr>
<tr>
<td>Listening to stories and answering question</td>
<td>11/20 (55%)</td>
</tr>
<tr>
<td>Greeting politely with focused eyes</td>
<td>10/20 (50%)</td>
</tr>
<tr>
<td><strong>Total Score</strong></td>
<td><strong>31/60 (52%)</strong></td>
</tr>
</tbody>
</table>

**Table 3. Recapitulation results week 2 of ADHD child moral improvement of respect**

<table>
<thead>
<tr>
<th>Moral Improvement (Respect)</th>
<th>Total Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responding to Softness by touch</td>
<td>13/20 (65%)</td>
</tr>
<tr>
<td>Listening to stories and answering question</td>
<td>17/20 (85%)</td>
</tr>
<tr>
<td>Greeting politely with focused eyes</td>
<td>16/20 (80%)</td>
</tr>
<tr>
<td><strong>Total Score</strong></td>
<td><strong>46/60 (77%)</strong></td>
</tr>
</tbody>
</table>

**Table 4. Recapitulation results of Week I observation of the moral development of ADHD children**

<table>
<thead>
<tr>
<th>Week</th>
<th>Indicator Respect / Polite</th>
<th>EVALUATION</th>
<th>Day 1</th>
<th>Day 2</th>
<th>Day 3</th>
<th>Day 4</th>
<th>Day 5</th>
<th>Total Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>Building empathy and feelings (Affective)</td>
<td>Responding with a touch</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>10/20 (50%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Listening to stories and answering questions</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>11/20 (55%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Habituation</td>
<td>greeting politely with eyes focus on seeing</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>5</td>
<td>6</td>
<td>8</td>
<td>8</td>
</tr>
</tbody>
</table>
Behavior targets in behavior modification are thoughts or actions that can be recorded and measured. The target behavior in this study was an ADHD behavior. During habituation in every day there was a modification in reading books. The child was asked to choose which title he liked, then question and answer. The ten story books provided were selected by the child treated. The researcher monitored whether the child can last at least 5 minutes to listen and focus his eyes in question-and-answer section. As well as when shaking hands or greeting, the child must learn to greet and shake hands with a touch that is not rough but soft with a focused eye. Story assistance effectively changes children to be more respectful or polite to others. Three moral components can be achieved in ADHD children by listening to stories. Storytelling must naturally involve teachers who are very patient. Patient teachers also contribute in making affectionate children. Various techniques of storytelling were applied, sometimes in the morning under the tree, or near the swing, sometimes during the day when other children were asleep, or in the afternoon. Figure 1 shows the effectiveness of story assistance program to the moral aspect of an ADHD child.

Fig. 1. The effectiveness of story assistance program to the moral aspect of an ADHD child

4.2 Discussion

The findings of this study showed that of the 3 moral components, the most difficult progress was in empathy. The results showed that, compared with low empathic peers, more empathic children were reported to exhibit greater pro-social behavior and less aggression and
In addition, there is empirical support for a positive relationship between empathy and pro-social behavior, although this association tends to be rather simple. For example, Miller, Eisenberg, Fabes, and Shell found that representative emotional responses (i.e., empathy) and moral reasoning were positively related to pro-social behavior toward peers. In fact, the interaction effect is observed in such a way that children who are high both in moral reasoning and emotional responses are most likely to help friends who are in difficulties. Miller, Eisenberg, Fabes, and Shell found that representative emotional responses (i.e., empathy) and moral reasoning were positively related to pro-social behavior toward peers. Empathy has been defined as "affective responses that originate from understanding or understanding of the emotional condition or other conditions". This includes recognizing and experiencing other people's emotional states. Empathy is often accompanied by sympathy or personal distress [8].

Teaching students about moral literacy is essential if the school is to produce productive and responsible citizens. Understanding of moral literacy can play a very vital role in the education system. Moral literacy should not be different from mathematics or literacy reading, because we all as individuals, professionals and citizens need to make many moral decisions throughout life [9].

Moral is a concept that tends to be abstract, considering that moral is talking about values that are abstract concepts. Basically, abstract concepts are not easily understood by children who have a tendency to think about things concretely. Introducing and instilling moral values in children can be done by using the method of storytelling so that children find it easier to understand moral concepts [4]. The findings regarding group discussions about problematic moral situations indicate that it would be useful to provide more opportunities for moral discussion for children in kindergarten classrooms. Cultural beliefs and values influence the teacher's view of children and their pedagogical practices.

Korean traditional education emphasizes greatly on moral education. Korean adults believe that it is their responsibility to know the moral values of their children as early as possible to help them develop moral tendencies, habits and thoughts. They believe that even very young children are able to learn morality without being limited by age and / or stages of cognitive development [5][6]. In contemporary Korean society, the cultural value of moral education continues. Helping children become moral beings is the most important goal for all levels of education. The moral pedagogy of Korean preschool teachers needs to be understood in this Korean context. Piaget claims that young children judge morality based only on results, not intention. They believe that moral norms are unilaterally imposed by adults, and thus children cannot change moral rules from one situation to another [6]. Furthermore, children know that immoral behavior is caused by desires. They consider that troubled behaviors, such as touching someone else without permission, skipping queues and littering, are the result of desire. Lee [5] argues that desire is one of the seven human feelings (joy, anger, sadness, fear, love, hate, and desire). Although children agree that desires are the cause, they conclude that the ultimate goals are different from each other.

The findings in this study indicated that the story assistance program was effective in improving moral aspects which has 3 components: affective, cognitive, and psychomotor. The cognitive moral component was proven to be the highest in influencing moral respect in ADHD children. This was in line with various existing studies that the story method was effective to improve moral aspects. Cognitive moral is a very important asset for a child to be able to do moral reasoning that is useful at all times if he/she is going to make a moral decision in everyday life. Therefore, the child who experienced ADHD disorders, who in the process of intervention was read stories over and over again with patience, was able to respond and over time could focus on listening, and understanding good and bad behaviors. On the habituation of
psychomotor moral, the child learned to greet others as a form of respect. After being intervened for several days, the child showed improvement. He greeted the teachers with focus. Affective moral is proven to be the one that last longer in ADHD children. It is in line with the previous researches that building affective moral takes stronger effort. Through stories, at least, the child started to speak softly although still need to be reminded. Touching friends or shaking hand softly also still need to be habituated, while communicating with empathy still need longer time.

5 Conclusion

In the first week, the result for empathy was 50%, for listening to stories was 55%, and for greeting others was 50%. In week 2 there was a 65% increase in empathy, 85% in listening to stories, and 80% in greeting habits. The results of this study reinforced the previous researches, that to show empathy or affective feelings for children takes more time, especially for ADHD children. The program of Moral Assistance with stories was proven to be effective for improving the moral aspects of cognitive morals as a basis for reasoning. Teachers’ patience and persistence in dealing with ADHD children with various strategies in habituating to reading stories, greeting, and responding with tenderness are also the keys to the success of assisting ADHD children to improve morality, in this case, is respect. When a child with ADHD can respect others, it can reduce the image as a child who is difficult to be managed. Otherwise, the child grows into a child who is polite and respectful to others. Training children earlier will be easier than training them when they are grown up.

References


Customer Satisfaction on Electronic Wallet Usage: Indonesia Experiences

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Universitas Ahmad Dahlan, Yogyakarta, Indonesia⁶
Universitas Terbuka, Jakarta, Indonesia⁷
Universitas Sarjanawiyata Tamansiswa, Yogyakarta, Indonesia⁸

Abstract. This study aims to empirically examine the determinants of consumers’ intention and satisfaction to use electronic wallet of Indonesian users. 119 respondents participated in the survey. 17 hypotheses were formulated and PLS-SEM was used to estimate and test the hypothesized model. The results show that factors like hedonic motivation, trust, and intention have a significant direct effect on the customers’ satisfaction in using electronic wallet, while perceived ease of use and perceived usefulness have significant indirect effect through trust. The customers’ intention to use electronic wallet only influences by hedonic motivation. Moreover, hedonic motivation has an important role in determining intention and satisfaction of Indonesian users to use electronic wallet. It implies that e-wallet is more used to fulfil hedonic consumption needs.

Keywords: Electronic wallet, Customer satisfaction, Intention

1 Introduction

Industrial Revolution 4.0, which begins with the development of information technology has an impact on changes in people's behaviour, one of which is the payment system. People who usually use cash-based payment began to switch to non-cash payments. This strongly supports the development of e-commerce because it is used as a payment tool, money transfer, and managing user loyalty [1].

The potential for the use of e-wallets is huge and attracts attention as an alternative payment method worldwide [2]. However, not all consumers are willing to accept the use of this technology [1], [3]. Among the causes are anxiety about new technology, lack of skills, lack of awareness, and complexity of new technology [4]. By ignoring the problems faced by individuals, various studies have confirmed that consumers prefer technology that provides fast, convenient and useful services on one platform [5]–[7].

In Indonesia, the people's preference to use electronic money is increasing. Based on transaction volume in 2018, the growth in the use of debit card, credit card, and e-money is 12.56%, 3.35%, and 209.83%, respectively. Then, based on transaction value in 2018, the growth is 11.72%, 5.55%, and 281.39%. From two aspects presented, the growth of debit and credit cards are in low level and is in contrast to electronic money [8]. This study aims to
empirically examine the determinants of consumers’ intention and satisfaction to use electronic wallets of Indonesian users.

2 Method

The proposed model and hypothesis of this study (see figure 1) is the modification from previous research, i.e. Chawla & Joshi [9]; Singh [1]; and Oliveira [10]. Then, an online questionnaire using the google form was designed to answer the research questions. The questionnaire survey was conducted over five weeks, from July to August 2019. The questionnaire consists of various items for the constructs like perceived ease to use (PEOU), perceived usefulness (PU), trust (TR), lifestyle compatibility (LC), facilitating condition (FC), hedonic motivation (HM), intention (IN), and satisfaction (ST). The final sample of this study is 119 electronic wallets users. The data collected was analysed with partial least square (PLS) as it was suitable for small samples. The first step in the analysis was the evaluation of the measurement model and the second step was the evaluation of the structural model [11].

Fig. 1. Proposed model with hypotheses

3 Result and Discussion

3.1 The measurement model

The items in the various constructs were subjected to measurement model using SmartPLS 3.0. Table 1 shows that all constructs are consistent with the value of Cronbach’s $\alpha$ exceed the minimum required value of 0.7 [12]. The measurement model was assessed by computing the
values of convergent and discriminant validity. For convergent validity was supported as the values of composite reliability (CR) was greater than 0.7 and the average variance extracted (AVE) was greater than 0.5. Discriminant validity was supported as the square roots of AVE were all greater than the correlation coefficients. Table 2 shows the second criterion for discriminant validity is cross-loadings, where the indicator loadings on its own construct is higher than the cross loading on any other construct. All correlation coefficients also were greater than the threshold value of 0.708.

**Table 1. Convergent and discriminant validity**

<table>
<thead>
<tr>
<th>Constructs</th>
<th>α</th>
<th>CR</th>
<th>AVE</th>
<th>FC</th>
<th>HM</th>
<th>IN</th>
<th>LC</th>
<th>PEOU</th>
<th>PU</th>
<th>ST</th>
<th>TR</th>
</tr>
</thead>
<tbody>
<tr>
<td>FC</td>
<td>0.852</td>
<td>0.900</td>
<td>0.694</td>
<td>0.833</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HM</td>
<td>0.830</td>
<td>0.898</td>
<td>0.749</td>
<td>0.489</td>
<td>0.865</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>IN</td>
<td>0.871</td>
<td>0.912</td>
<td>0.721</td>
<td>0.537</td>
<td>0.706</td>
<td>0.849</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LC</td>
<td>0.889</td>
<td>0.923</td>
<td>0.750</td>
<td>0.715</td>
<td>0.636</td>
<td>0.606</td>
<td>0.866</td>
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<tr>
<td>PEOU</td>
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<td>0.647</td>
<td>0.410</td>
<td>0.545</td>
<td>0.581</td>
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<td>0.751</td>
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<td>0.662</td>
<td>0.718</td>
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<td>0.835</td>
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</table>

**Table 2. Measurement model cross loadings**

<table>
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<th>Constructs</th>
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<th>HM</th>
<th>IN</th>
<th>LC</th>
<th>PEOU</th>
<th>PU</th>
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</tr>
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</tr>
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<td>TR6</td>
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<td>0.532</td>
<td>0.608</td>
<td>0.630</td>
<td>0.596</td>
<td>0.565</td>
<td>0.832</td>
</tr>
</tbody>
</table>
3.2 The structural model

The path coefficients and their significance are presented in Figure 2 and Table 3. It is seen that out of the 17 hypotheses proposed, 9 are supported. Perceived ease to use, lifestyle compatibility, and facilitating condition have positive and significant impact on perceived usefulness (PU) thereby supporting H₁, H₉, and H₁₂. It is natural to believe that making a system easy to use should enhance its usefulness. Facilitating condition in the term of e-wallet

![Fig. 2. Path coefficients and their significance](image)

| Hypotheses | Relationship       | Original sample (O) | Sample mean (M) | SD    | t-statistics (|O/STDEV|) | p-values   | Supported |
|------------|--------------------|---------------------|-----------------|-------|-------------------------|------------|-----------|
| H₁        | PEOU --> PU        | 0.296               | 0.320           | 0.133 | 2.217                   | 0.027**    | Yes       |
| H₂        | PEOU --> TR        | 0.318               | 0.344           | 0.172 | 1.84                    | 0.066***   | Yes       |
| H₃        | PEOU --> ST        | -0.146              | -0.12           | 0.102 | 1.427                   | 0.154      | No        |
| H₄        | PU --> TR          | 0.498               | 0.462           | 0.176 | 2.825                   | 0.004*     | Yes       |
| H₅        | PU --> IN          | 0.051               | 0.051           | 0.118 | 0.435                   | 0.663      | No        |
| H₆        | PU --> ST          | -0.013              | -0.002          | 0.109 | 0.121                   | 0.903      | No        |
| H₇        | TR --> IN          | 0.164               | 0.181           | 0.162 | 1.016                   | 0.310      | No        |
| H₈        | TR --> ST          | 0.281               | 0.280           | 0.116 | 2.411                   | 0.016***   | Yes       |
| H₉        | LC --> PU          | 0.322               | 0.287           | 0.129 | 2.498                   | 0.012**    | Yes       |
| H₁₀       | LC --> IN          | 0.049               | 0.063           | 0.145 | 0.339                   | 0.734      | No        |
| H₁₁       | LC --> ST          | 0.054               | 0.064           | 0.105 | 0.514                   | 0.607      | No        |
| H₁₂       | FC --> PU          | 0.32                | 0.325           | 0.109 | 2.917                   | 0.003*     | Yes       |
| H₁₃       | FC --> IN          | 0.101               | 0.103           | 0.114 | 0.883                   | 0.377      | No        |
| H₁₄       | FC --> ST          | 0.125               | 0.113           | 0.094 | 1.333                   | 0.183      | No        |
| H₁₅       | HM --> IN          | 0.515               | 0.474           | 0.127 | 4.056                   | 0.000*     | Yes       |
| H₁₆       | HM --> ST          | 0.342               | 0.350           | 0.107 | 3.192                   | 0.001*     | Yes       |
| H₁₇       | IN --> ST          | 0.336               | 0.309           | 0.118 | 2.851                   | 0.004*     | Yes       |

Note. *significant at 0.01 level; **significant at 0.05 level; ***significant at 0.10 level
availability and affordability on smartphones also increase its usefulness. E-wallet usefulness will be increase if the customers’ lifestyle on fashion consciousness and leisure orientation can meet the expectation. This result is consistent with prior research as it shows a positive relationship between variables and perceived usefulness of e-wallet [3], [9], [13]–[15].

Basic constructs of technology acceptance model, such as perceived ease to use and perceived usefulness have positive and significant impact on trust (TR) thereby supporting H2 and H4. PEOU and PU refers to the users’ perception of the e-wallet performance, such as the ease in learning and understanding about the product, the facility and other benefits. So, it can enhance the customers’ trust [9], [16]. Hedonic motivation has positive and significant impact on intention (IN) thereby supporting H15. However, PU, TR, LC, and FC have positive impact but insignificant. Hedonic motivation refers to the experience, challenge and enjoyment to use e-wallet for fulfil the needs and it can enhance the costumers’ intention. It is in line with Baptista & Oliveira works [17].

The users’ satisfaction of e-wallet has influenced significantly by trust, hedonic motivation, and intention to use. Hence, H6, H16a, and H17 was supported. User confidence in e-wallet providers related to the security of data, money, etc. and hedonic value of the product can increase users’ satisfaction [18], [19]. The greater intention to use would increase e-wallet users’ satisfaction and it is supporting the finding from Singh et.al. [2] and Oliveira et.al. [10]. This is important because satisfaction is a key factor to assess service quality and improve competitive advantage of a technology. However, PEOU, PU, LC, and FC have insignificant direct impact, but PEOU and PU have indirect impact on satisfaction through trust.

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4 Conclusion

This study was to evaluate users’ intention and satisfaction of e-wallet. The result of the study found that hedonic motivation has the most important role in determining the intention and satisfaction to use e-wallet. The e-wallet users’ satisfaction is influenced by trust, hedonic motivation, and intention, directly, whereas the perceived ease of use and perceived usefulness have significant indirect effect through trust on satisfaction. The users’ intention to use e-wallet only influences by hedonic motivation, while other variables have no significant effect. Furthermore, perceived usefulness of Indonesian users on e-wallet support by perceived ease to use, lifestyle compatibility, and facilitating condition.

Acknowledgement

The authors would like to thank Universitas Muhammadiyah Magelang for its research grant and opportunity that enabled the authors to conduct this research. The authors also thank the reviewers for valuable comments.

References


Crowdfunding Platform as Waqf Land Financing Model: A Case of Muhammadiyah Waqf Institution

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Abstract. This Muhammadiyah institutions in Indonesia face various difficulties in developing their waqf land. For instance, the financial sources are often inadequate, limiting development. The purpose of this paper is to propose an alternative financing model in the form of a waqf crowdfunding platform for Muhammadiyah institutions in dealing with financial problems. This research offers a crowdfunding platform model to be used by Muhammadiyah waqf institutions, especially in Central Java, in financing-related projects. In general, the study analyses the inefficiency of Muhammadiyah waqf management in Central Java due to the problem of financing waqf projects. A waqf crowdfunding platform model has been developed as a source of funds for Muhammadiyah waqf institutions. It is expected to be a solution for the empowerment of Muhammadiyah non-productive waqf land. The institutions may have to find alternative solutions for the development of waqf for the people. The findings of this study provide material information and input for Muhammadiyah Waqf Institutions through crowdfunding platforms. Through this model, Muhammadiyah waqf might become more useful in solving economic and social problems for the Ummah, especially in Central Java.

Keywords: Muhammadiyah; Waqf; JariyahMu; Fundraising

1 Introduction

Through Law No. 41 of 2004 on waqf, Indonesia has legitimized the management of waqf institutions to the government as well as to all elements of society [1]. This includes the Muhammadiyah Persyarikatan appointed as nazhir through a Decree of the Minister of Home Affairs in 1972 [2]. From the portal http://sikafmujateng.org/, Majelis Wakaf dan Kehartabendaan Central Java has managed waqf totaling to 2,834 lands in an area of 206.34 Ha. Nevertheless, the majority of Muhammadiyah waqf land in Central Java serves as mosques, prayer rooms, or educational institutions (Table 1) [3].

<table>
<thead>
<tr>
<th>No</th>
<th>Types of waqf</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mosques</td>
<td>20.72%</td>
</tr>
<tr>
<td>2</td>
<td>Clinics and hospitals</td>
<td>3.6%</td>
</tr>
<tr>
<td>3</td>
<td>Schools</td>
<td>49.55%</td>
</tr>
<tr>
<td>4</td>
<td>Orphanages</td>
<td>26.13%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 1. Muhammadiyah waqf land categories

Sources: Majelis Wakaf dan Kehartabendaan reports
According to Table 1, 70.27% of Muhammadiyah's waqf land is used as religious and educational facilities. This portion has not contributed to the development of the economic sector. The primary goal of waqf is to cater for the welfare of the Ummah [4]. Unfortunately, there is a lack of financial resources, leading to a gap in developing assets and classical management patterns in managing waqf land [5].

Therefore, the development of Muhammadiyah waqf land requires other innovative financial resource systems [6]. The financial resource challenges faced by Muhammadiyah's waqf institution form the basis of this research. The study proposes a new and sustainable model for development through the crowdfunding waqf model (CWM). Moreover, the CWM is expected to be the most appropriate and adequate funding system in overcoming financial problems faced by Muhammadiyah waqf institutions [7]. It utilizes internet-based innovation for the development of waqf projects which have proven successful in several countries, such as the United Kingdom, Canada, France, and Brazil [8]. The potential of the funding system through this model is excellent in case it is applied to Muhammadiyah waqf institutions. The funds raised from crowd investors help in developing the Muhammadiyah waqf project based on donations instead of cash.

The purpose of this study aims to propose a funding system that overcomes the problem of financing waqf land faced by Muhammadiyah waqf institutions. It recommends the development of policies to enhance the role of CWM in the management of waqf land.

2 Literature Review

Research on waqf has been carried out to analyze its management in Muslim countries. This research begins with a previous study of the vital role of waqf in the welfare of the Ummah. Non-profit sectors, such as waqf, have a significant role in world social justice, which connects the enriched parties with the ones in need of it [9]. The concept offered is different and offers Sukuk al-intifa’a as an alternative model of critical financial instruments. It has the potential to support productive waqf management, making it a significant source of funds in developing the country's economy [10].

Previous works focused a lot on the normative aspects related to the role of cash waqf in poverty alleviation in Indonesia, the contribution of the Waqf Bank to the social welfare of the community, and the management of waqf through a community approach [11]–[13]. However, studies of waqf tend to focus solely on social frameworks. For instance, previous studies have not discussed and tried to formulate Indonesia's economic problems into alternative sustainable systems or models such as crowdfunding.

The crowdfunding platform refers to the efforts of a group of individuals to raise finances through the internet to support projects offered by Nazhirs waqf [14]. The most appropriate category to be applied to the waqf crowdfunding platform is the donation model, following McGrail's explanation that the crowdfunding platform donation model is usually referred to as non-profit agencies, including waqf institutions [15].

Not-for-profit crowdfunding contains projects that do not aim to generate profits [16]. However, donation-based crowdfunding applied to non-profit institutions provides a return in the form of social gains [17]. Crowdfunding in the field of waqf might be funded by waqf from the community, which in general is an essential source of funding amid the problem of the development of waqf land.
From previous studies, the crowdfunding model in the development of Muhammadiyah waqf land has not been discussed sufficiently. This model is expected to make waqf more productive for community development.

### 3 Proposed Model

The crowdfunding model proposed involves three parties, the Muhammadiyah waqf institution, administrators, and crowd funders (investors). The Crowd funders consists of donors who provide and donate funds for the Muhammadiyah waqf project. A lot of waqf crowdfunding project initiators are not interested in managing the related processes, and therefore they need the help of intermediaries. The administrator acts as a facilitator between the project initiator and the donor. Additionally, the administrator is an intermediary between the waqf project donors and the manager, in this case, the Muhammadiyah waqf institution.

This model shows an alternative approach for Muhammadiyah institutions in developing consumptive waqf land to be productive. In Central Java, donation-based crowdfunding is a model to be applied to the proposed CWM (Figure 1).

![Fig. 1. Alternative waqf crowdfunding models](image)

The following is an explanation regarding the flow of the CWM process for Muhammadiyah waqf institutions:

- **a.** Muhammadiyah waqf institution in Central Java plans to develop waqf land through several projects such as hotels, buildings, shopping centre, and hospitals. It then identified the waqf land and its potential and conducted a promotion to obtain funds from donors;
- **b.** The institutions submit proposals to administrators through the platform by determining the funding period;
- **c.** Donors choose the projects to fund through project-tracking on the platform;
- **d.** Donors send funds through online payment of financial bodies collaborated with Muhammadiyah Central Java waqf institutions;
e. In case the funding target is met, the platform updates the status of the project and donations to be distributed to the Muhammadiyah endowments;
f. Administrators through the platform distribute donations to Nazir waqf Muhammadiyah;
g. Nazir waqf manages donations and updates the progress of the project into the system to ensure transparency of management; and
h. Administrators submit reports on the management of endowment donations to donors through the platform.

From the waqf crowdfunding model (Figure 2), namely JariyahMu, Muhammadiyah waqf institutions and crowdfunding platforms might be mutually beneficial. With the donations from crowd funders, the financing problem, the main inhibiting factor in the empowerment of waqf land, is overcome easily [18]. Therefore, a crowdfunding platform has a positive impact on Muhammadiyah waqf institutions, the community, and the Indonesian economic sector.

The crowdfunding model is useful for Muhammadiyah waqf institutions to achieve the main objectives of waqf and for the initiated projects to be successful. A lot of donors might be interested in funding projects socialized through the platform [19]. In consequence, Muhammadiyah waqf institutions in Central Java might meet their consumptive waqf financing without having to rely on cash waqf.

![WakafMu crowdfunding platform](image)

**Fig. 2.** WakafMu crowdfunding platform

This model is also expected to bring broader benefits to the community economy. This is because it places more emphasis on land empowerment that stimulates the development of the economy of the region. Besides, these projects might bring jobs to the community and help in poverty alleviation. Crowdfunding, in the end, is a system of income allocation and distribution of wealth as regulated in religion.
4 Future Research Direction

Future studies need to examine the relationship between platforms and donors on operational performance. The dimensions of this study are derived from the literature on accepting donors using platforms through survey methods with the Technology Acceptance Model analysis technique. The goal is to determine the shortcomings and conveniences received by donors while using it.

5 Conclusion

This research shows that the majority of Muhammadiyah waqf land is managed consumptively. The institutions in Central Java face financing problems in managing land entrusted to them by waqf. The lack of funds is considered as a significant factor that significantly influences the success of Muhammadiyah waqf management. This study proposes a crowdfunding model as a solution to overcome the financing constraints. This might help of waqf increase the role of waqf and its contribution to the socio-economic welfare of the community.

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References

Taxpayer Perception, Implementation of SME’s Accounting, Self Assessment System and Income Level to Compliance with SME’s Taxpayers

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Abstract. The implementation of PP No. 23 tahun 2018 is a strategic step taken by the government in an effort to increase and optimize income tax collection. The reason behind the goal of the SME’s income tax policy is that the contribution of SME’s to the economy is very large, but the contribution of SME’s in taxation revenue is very small. Several strategic steps have been taken by the government through the DJP, including the ease and simplification of tax treatment for SME’s businesses and determining the cost taxation according to the capabilities of SME’s. The self-assessment system in reality, the system is difficult to run as expected and has the potential for abuse. The research data used as a sample of 58 questionnaires filled out by owners/managers of SME’s in Magelang City who already have a NPWP. The test results show that the Taxpayers’ Perceptions of Government Regulation PP No. 23 tahun 2018 and the Self Assessment System have a significant positive effect on SME Taxpayer Compliance in Magelang City. Meanwhile, the application of accounting for SME’s and income levels has no effect on SME’s taxpayer compliance in Magelang City. The implication of this research is the importance of understanding tax regulations and knowledge of the self-assessment system for SME’s so that it will further improve compliance with paying SME’s taxes in a conscious manner without any pressure from regulations.

Keywords: Taxpayer perception, self assessment, compliance

1 Introduction

Taxes are contributions to the state which are enforceable and payable by taxpayers who have met the provisions of subjective and objective requirements according to law. The tax paid is used to finance general expenses related to government administration. The largest source of state revenue in fulfilling state spending at this time comes from tax revenue. Almost every year in the preparation of the State Expenditure Budget, more than 80% of revenue originating from taxes is used to meet budget financing needs. The government has set a fiscal mission so that development planning continues, with taxes as a strategic component [1]. Therefore, the active role and awareness of taxpayers is needed in increasing the source of state revenue. Concern in paying taxes will be difficult to realize if there are no elements that can be enforced. This element provides an understanding that people are required to pay taxes voluntarily and with full awareness of being good citizens [2].

The Indonesian government through the Directorate General of Taxes (DGT) has issued PP No. 23 of 2018 as a substitute for PP No. 46 of 2013 concerning Income Tax on Income from
Business Received or Obtained by Taxpayers who have Gross Turnover. One of the most significant changes from the enactment of PP. 23 of 2018 is the tax rate for MSME businesses, which was originally 1% to 0.5% of the total gross turnover. With this implementation, it is hoped that it will reduce the pros and cons problems related to taxpayer compliance in fulfilling their tax obligations. The implementation of PP 23 of 2018 is a strategic step taken by the government in an effort to increase and optimize income tax collection. The reason behind the goal of the MSME income tax policy is that the contribution of MSMEs to the economy is very large, but the contribution of MSMEs in taxation revenues is very small. Several strategic steps have been taken by the government through the DGT, including the ease and simplification of tax treatment for MSME businesses and determining the tax burden according to the capabilities of MSMEs.

Many innovations have been carried out by the Directorate General of Taxes to make it easier for taxpayers to participate in developing the country. If income taxpayer compliance increases, tax revenue will increase so that the state treasury will also increase [3]. According to [4], the self-assessment system is not a voluntary system but rather a tax system that relies on taxpayers to report their income freely and voluntarily, calculate their tax obligations correctly and report, submit tax returns in a timely manner. However, in reality, the system is difficult to run as expected and has the potential for abuse. The self-assessment system in taxation has an important role in increasing taxpayer compliance.

This research refers to research conducted by [5]. The difference between this study and previous research is the analysis of the perceptions and understanding of taxpayers on the implementation of PP. 23 of 2018 in lieu of PP No. 46 of 2013 with the new rate of 0.5% which is intended to motivate taxpayers to pay income tax from independent business operations. Other variables examined in this study are the application of MSME accounting, the self-assessment system enforced by the DGT, and the level of income earned by MSME business actors towards UMKM taxpayer compliance. This research was conducted with a sample of UMKM taxpayers registered at KPP Pratama Magelang in 2018. The increasing number of MSME business players in Magelang City did contribute to tax revenue originating from MSME income tax.

2 Method

The sampling method is purposive sampling, which is sampling based on certain criteria [6]. The sample used in this study were MSME taxpayers registered at KPP Pratama Magelang who were active in 2018. Their business was formalized as a taxable entrepreneur. Active MSMEs are still running a business and doing bookkeeping. Have a turnover of less than 4.8 billion in a year.

The type of research data is primary data in the form of a research questionnaire. The data collection method was carried out through a survey. Questionnaires from respondents are selected first in order to get a completely filled questionnaire. The list of questions (questionnaire) in this study refers to a research questionnaire tailored to the situation, related theories.

a. MSME Taxpayer Compliance
   Taxpayer compliance is a condition in which taxpayers carry out their tax obligations properly and voluntarily.

b. Taxpayers’ Perceptions of the Enactment of PP No.23 of 2018
The taxpayer's perception is a condition in which the taxpayer understands and responds to the implementation of taxation rules that are enforced.

c. MSME Accounting Application
The application of accounting for MSMEs is that taxpayers run their business based on proper and correct bookkeeping.

d. Self Assessment System
The self-assessment system is a system that gives taxpayers the authority to calculate, deposit and report their tax obligations themselves.

e. Income
Tax collection must be submitted at the right time, namely when the taxpayer receives income. This is intended so that taxpayers are said to be able to fulfill their tax obligations.

The regression equation used is as follows:

\[ Y = \alpha + \beta_1 \text{PWP} + \beta_2 \text{PA} + \beta_3 \text{SSA} + \beta_4 \text{TP} + e \]

Where \( Y = \) Taxpayer Compliance; \( \alpha = \) Constant; \( \beta_{1,2,3,4} = \) Regression coefficient; \( \text{PWP} = \) Perception of taxpayers on the implementation of PP No.23 of 2018; \( \text{PA} = \) Application of MSME accounting; \( \text{SSA} = \) Self Assessment System, and \( \text{TP} = \) Income Level

3 Results and Discussion

3.1 Results
Based on the table R square and F test showed on Table 1 and 2.

### Table 1. R square

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.784*</td>
<td>.615</td>
<td>.586</td>
<td>.283</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), TP, PWP, SSA, PA
Dependent Variable: KWP

Based on the table above, the R2 value or the coefficient of determination is 0.586. This means that the independent variable of taxpayer perceptions related to PP No. 23 of 2018, the application of SME accounting, the self-assessment system and the level of income have an effect of 58.6% on the dependent variable of SME taxpayer compliance. Meanwhile, 41.4% was influenced by other variables not included in the regression model.
The F statistical test is basically used to measure the accuracy of the sample regression function in estimating the actual value (goodness of fit). The F test tests whether the independent variable is able to explain the dependent variable well or to test whether the model used is fixed or not. Based on table 4.9, F count > F table or p value < α = 0.05, meaning that the model used is good (fit).

Partial testing is used to determine whether the independent variable individually has an influence on the dependent variable. Based on table 4.10, the results of the t test show Taxpayers' Perceptions of Government Regulation No. 23 of 2018 and the Self Assessment System have a significant positive effect on SME Taxpayer Compliance in Magelang City so that H1 and H3 of this study are accepted. While the application of accounting for SMEs and income levels does not affect SME taxpayer compliance in Magelang City, H2 and H4 research is not accepted.

### 4.2 Discussion

Taxpayers' Perceptions of PP. 23 of 2018 has a positive effect on SME Taxpayer Compliance. This means that the better the perception of taxpayers on tax regulations, especially PP. 23 of 2018 will increase SME taxpayer compliance. This implies that SMEs in Magelang City need socialization related to tax regulations so that it will motivate to comply with tax payments. The essence of PP No. 23 of 2018 is a reduction in tariffs carried out by the Director General of Taxes to stimulate business actors to also carry out their obligations to provide contributions to the state because they earn income from their business. SME entrepreneurs also realize the importance of paying taxes awareness and knowing the sanctions that will be obtained if the SME taxpayer does not carry out their obligations when they already have an NPWP and their turnover exceeds the tax provisions. Therefore, the perception of taxpayers on tax regulations, especially PP. 23 of 2018 motivates or influences SME taxpayer compliance.

The Self Assessment System has a significant positive effect on SME taxpayer compliance. This means that the better the understanding of SMEs on the Tax Self Assessment System will increase taxpayer compliance. This has implications for the importance of understanding that SMEs that already have an NPWP must have to carry out a self-assessment of their tax obligations. The implementation of Tax Self-Assessment for SMEs requires SMEs that already have an NPWP to calculate, pay and report their tax obligations. What often happens is that SMEs when selling both trade and services related to third parties, for example, government agencies are deducted and pay taxes but have not yet arrived to report due to SMEs' ignorance regarding online reporting. The implication of this research is that it is expected that there will be socialization and assistance for SMEs to report their tax obligations online using the e-filling tax system.

The application of SME accounting and income levels does not affect the compliance of SME taxpayers in Magelang City. This means that taxpayer compliance is not influenced by the presence or absence of accounting bookkeeping or the application of accounting for SMEs and also the income level of SMEs. Taxpayer compliance is more influenced by tax laws and regulations which can force SME businesses to provide tax contributions to the state. The implication of the results of this study will be used as a service to improve taxpayer compliance of SMEs in Magelang City.
4 Conclusion

Based on the results of the research conducted, it can be concluded that the following research data were used as a sample of 58 questionnaires filled out by owners / owners / managers of SMEs in Magelang City who already have a NPWP. The test results show that the Taxpayers' Perceptions of PP No. 23 of 2018 and the Self Assessment System have a significant positive effect on SME Taxpayer Compliance in Magelang City so that H1 and H3 of this study are accepted. Meanwhile, the application of accounting for SMEs and income levels has no effect on SME taxpayer compliance in Magelang City, H2 and H4 research is not accepted. The implication of this research is the importance of understanding tax regulations and knowledge of the self-assessment system for SMEs so that it will further improve compliance with paying SME taxes in a conscious manner without any coercion from regulations.

Some of the limitations of this study include the sample used is SMEs in Magelang City that already have a NPWP. Suggestions for further research are to use a sample of MSMEs registered at the Tax Service Office (KPP) as PKP to have a turnover above the tax legislation.

References

Pharmacists also need to know the various kinds of communication models that can be applied in the context of pharmacist-patient communication.

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References


