Relevance of Technological Adaptation to Support Tridharma Performance

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Abstract. The COVID-19 pandemic, which has entered Indonesia for two years, has resulted in fundamental changes in various activities within the work environment. Many jobs were quickly adapt to virtual technology support to work even at home or at vacation. In the world of education, teaching and learning activities and the whole Tridharma activities have been becoming more efficient and can be carried out anytime anywhere. This study aims to evaluate the readiness of lecturers while utilizing virtual technology to support their performance of the Tridharma. In addition, this level of readiness is also evaluated in comparison with their commitment while carrying out their duties. The research was conducted on lecturers at Universitas Sumatera Utara. The results of this study indicate a strong attachment of the ability of lecturers' using virtual technology with the commitment to carry out Tridharma as well as their performance. Even though offline activities have been used in the field of teaching, various Tridharma activities were still often carried out virtually. Tridharma's performance will increase along with the improvement of lecturer adaptation to work from anywhere concept. Therefore, it is important to pay attention to the readiness and ability of lecturers in utilizing technology that supports the implementation of Tridharma anytime and anywhere.

Keywords: Tridharma, WFA, Technology, Virtual Environment, Managing Performance

1 Introduction

Since the beginning of 2020 countries in the world have been shocked by the outbreak of the corona virus or what is known as covid-19. The virus that initially developed in Wuhan, China spread very quickly and spread to various countries including Indonesia [1]. The government began announcing the existence of the covid-19 virus in Indonesia at the end of February 2020. World Health Organization establish a national emergency status for Covid-19. Indonesian government declare the status of the Covid-19 National Disaster Emergency period on March 14 2020. Government policies dealing with the covid-19 pandemic had an impact in all walks of life including the campus world. The declaration of a National Disaster has closed down almost all campuses since March 2020 [2]. The world of education responded to this government policy by closing campuses and establishing a distance learning program for students through internet technology. This was quite a surprise to the academic community, both lecturers, students and campus support divisions. This is the first time the campus really faces uncertainty [3]. This condition makes higher education think hard to be able to adapt to uncertainty. It turns out that campuses are also required to try to mitigate this uncertainty. The campus is making rapid changes by implementing an online model learning

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process using 4.0 technology which was considered wishful thinking before. Now, with Covid-19, campuses are forced and accelerated to use technology 4.0 in distance learning activities. Lecturers and students are "forced" by circumstances to get used to the new learning pattern, namely the 4.0 lecture pattern [4].

Lately there has been a lot of news about the Government discussing workers can work from anywhere or Work from Anywhere (WFA) [5]. The proposal was based on the work system that took place during the Covid-19 pandemic, namely the Working from Office (WFO) – Working from Home (WFH) work system which was considered successful. Changes in work patterns from home or work from home (WFH) which are then discussed as Work from Anywhere as future habit [6], [7]. For higher education for example, it is certainly not easy to adapt to flexibility, especially in maintaining the performance of its lecturer-students relationship. The changes in teaching patterns using technology and distance learning require ability to master technology for both lecturers and students [8]. Lecturers required to carry out constructive teaching (constructive alignment) again towards the alignment of the three Outcome Based Education (OBE), namely (1) learning outcomes, (2) learning activities, and (3) assessment methods that have been prepared in the Learning Plan Semester (RPS). Demands to adapt to changes in the learning system as well as demands to master technology in order to be able to run a distance learning system are situations that can make lecturers enter work situations that make them experience work stress. In Indonesia, the results of Kusnadi's research (2014) show that work stress is influenced by the workload of lecturers. The uncertain situation of the Covid-19 pandemic requires that lecturers apart from carrying out their routine duties are also required to master technology [9] and learn quickly the process of distance learning through technology 4.0. This situation can be a trigger for the occurrence of work stress for lecturers [10].

This research will focus on the WFA (Work From Anywhere) Readiness Analysis of Lecturer Performance Commitment, to see and analyze how lecturers' performance commitments in implementing the Work From Anywhere Policy and also in assessing the possibility that Work from everywhere can be applied in the new normal era new normal.

2 Literature Review

Higher education in Indonesia is under the Ministry of Education and Culture of the Republic of Indonesia. In the era before COVID-19 hit Indonesia, higher education in Indonesia was carried out entirely with face-to-face activities [11]. Lecturers and students meet each other in knowledge transfer activities. The government and institutions have prepared a platform to build distance learning activities so that education can be carried out anytime and anywhere. It's just that this implementation has not been implemented considering the readiness of technology and the ability of the lecturers at that time were still not familiar with the planned system being developed[11].

The arrival of the COVID-19 pandemic in Indonesia has also forced the acceleration of technology transition in higher education institutions. The new normal policy is also implemented in the higher education system which requires educational activities to be carried out online [12], [13]. Resistance to change is unavoidable, especially for lecturers who are not ready for the new distance learning system. This condition is an opportunity as well as a challenge that must be utilized as best as possible in order to advance education in Indonesia in order to support the nation's goals, namely the intellectual life of the nation.

The transition to an online learning system refers to the implementation of educational activities where lecturers and students do not meet face to face but rather through virtual means by utilizing various media [1]. Lecturers must be able to use media to achieve learning objectives by utilizing online media. Lecturers must be able to adapt so that the use of this system can achieve the expected learning objectives.

Tridharma in this study refers to the main duties of a lecturer. Lecturers are professional educators and scientists as stated in Law No. 14 of 2005 concerning teachers and lecturers. The tridharma duties of the lecturer cover the fields of education and teaching, research and community service. The performance of a lecturer which is stated as a lecturer performance burden is evaluated based on the achievement of the tridharma performance [9]. In the field of education and teaching [14], a lecturer must be able to (1) carry out teaching well, (2) produce teaching books and (3) carry out final project guidance well. From research activities a lecturer must be able to (1) carry out research; (2) journal publications; and (3) become a speaker at a scientific forum. In terms of dedication, a lecturer must be able to (1) carry out community service activities; (2) integrating research results into community service; and (3) training the general public. This study uses the tridharma performance indicators as a basis for assessing the performance of a lecturer.

3 Research Method

This study seeks to see the adaptability of the work from anywhere system by utilizing technology on the commitment and performance of lecturers in general. Therefore the nature of this research leads to an exploratory study. This study evaluates the readiness to implement work from anywhere among lecturers in Medan City. This research involved lecturers from the Universitas Sumatera Utara representing State Universities in Medan City. Willingness to participate in this research was requested beforehand by all research respondents. In an effort to focus on research implementation, the sample in this study was directed by purposive sampling with a focus on the maximum age of lecturers being 50 years. The assumption used is the ease of adaptation of lecturers to technological developments. A total of 100 lecturers from Universitas Sumatera Utara participated in this research.

This study involved three main variables, namely adaptation to work from anywhere technology (X), commitment to lecturer organizations (Y) and its impact on the performance of the tridharma of higher education (Z). Adaptation to work from anywhere technology is measured through ten indicators which are divided into four dimensions, namely expertise in using technology, equipment support, adaptability and technical ability to use technology. Organizational commitment is measured using six indicators of commitment to the university where each lecturer works. Commitment that is measured includes cognitive, affective and behavioral commitment. The last variable is the performance of the tridharma of higher education which is a measure of lecturer performance in Indonesia. This performance includes three main parts of tridharma, namely the implementation of education, implementation of research and implementation of research as well as supporting elements such as professional membership.

validity and reliability test of research questionnaire was carried out at an early stage to ensure that the research questionnaire used as a data collection medium was appropriate and was able to measure research variables properly. The results of the validity test using the Pearson product moment indicated that all indicators were valid and the results of the

reliability test using Cronbach's alpha indicated that all indicators were reliable in measuring each research variable.

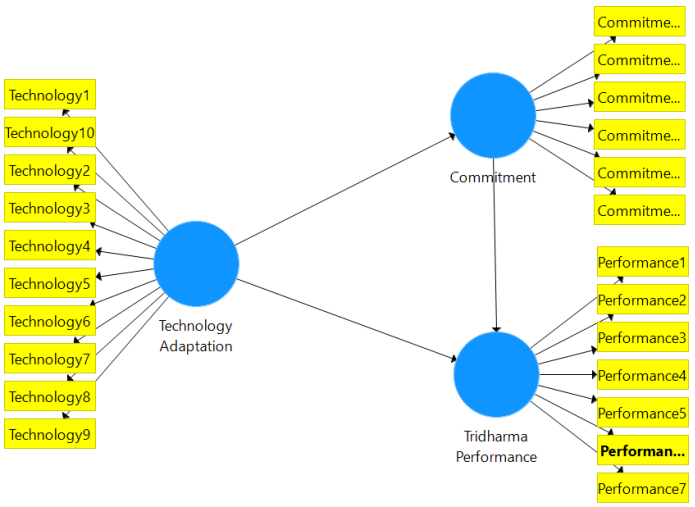

Fig 1. Research Framework

Figure 1 shows that in this study, technological adaptation, which is a sad factor for work from anywhere, is expected to affect the work commitment of lecturers to the university and the performance of their tridharma. In addition, this study evaluates the influence between work commitment and the performance of a lecturer's tridharma. Thus this study also evaluates the mediating role of the work commitment variable between the influence of technological readiness and the performance of the tridharma of lecturers

4 Result

4.1 Model Evaluation Result

This research involved 100 lecturers from the Universitas Sumatera Utara. The characteristics of the lecturers who participated in this study are summarized as follows:

Table 1. Respondent Characteristics

Characteristic	Count (%)
Gender (n=100)	
Male	30
Female	70
Age Group (n=100)	
Under 30 years old	2
30 - 40 years old	33

Characteristic	Count (%)
40 - 50 years old	65
Educational Attainment (n=100)	
Magister	55
Doctor	45
Academic Level (n=100)	
Lecturer	6
Senior Lecturer	21
Asistant Professor	50
Associate Professor	19
Professor	4

Table 1 indicates that the majority of lecturers who participated in this study were women (70%) between the ages of 40-50 years (65%) with the highest education master's degree (55%). In terms of academic rank, the majority of respondents have a lector education level (50%).

Research Model Analysis

analysis was carried out by evaluating the structural model of this study. Analysis was performed using structural equations with the Partial Least Square method. The tool used in this research is SmartPLS 3 [15]. Structural model assessment is carried out using two stages. The first stage evaluates the measurement model (outer model analysis) to find out whether the research model carried out meets a valid and reliable research model in measuring all the research variables. The suitability of the model fit is also evaluated at this stage [16]. If all have been fulfilled, the analysis proceeds to the next stage, namely the assessment of the model which predicts the influence of the research variables and uses the bootstrap method to see the significance and generalize from the sample to the population.

The validity of the model at the outer model analysis stage in this study was carried out by evaluating the loading factor of each indicator in explaining the research variables. The cut off value used in explaining the loading factor is used at the 0.6 level. This standardization is used with a decision if the loading factor value of the indicator is less than 0.6 then the indicator is removed from the research model and re-analyzed. The cut off value of 0.6 illustrates a strong relationship between the ability of indicators to explain the variables of the study.

Table 2. Outer Model Analysis

Indicator	Commitment	Technology Adaptation	Tridharma Performance
Commitment1	0,649		
Commitment3	0,818		
Commitment4	0,821		
Commitment5	0,760		
Commitment6	0,612		
Performance2			0,721

Indicator	Commitment	Technology Adaptation	Tridharma Performance
Performance3			0,857
Performance4			0,874
Performance5			0,766
Performance7			0,653
Technology10		0,702	
Technology2		0,664	
Technology3		0,753	
Technology4		0,741	
Technology5		0,790	
Technology7		0,618	
Technology8		0,663	
Technology9		0,851	
AVE	**0,543**	**0,527**	**0,606**
Composite Reliability	**0,854**	**0,898**	**0,884**
Cronbach's Alpha	**0,785**	**0,869**	**0,838**

Table 2 provides a summary that all indicators in this study used in the research model have a value above the cut off value of 0.6. In testing the validity of the measurement model, this study also evaluates consistency by paying attention to the average variance extracted (AVE) value. The expected AVE value in a model must be greater than 0.5. Evaluation of the AVE has also shown that all indicators have an AVE value above 0.5. Thus the measurement model has obtained a valid status.

Table 2 also provides information regarding the reliability of the model in measuring each construct. Measurement of model reliability was carried out by evaluating the composite reliability and Cronbach's alpha values of each research variable. Table 2 shows that all values for composite reliability or Cronbach's alpha have a value above 0.7. This value provides information that the measurement model used in this study is reliable.

Coefficient of Determination

The coefficient of deacceptance in this study was carried out to see the magnitude of the contribution of exogenous variables in estimating the value of endogenous variables. The coefficient of determination in this study is summarized in Table 4.

Table 4. Determinant Coefficient Research Model

	R Square	R Square Adjusted
Commitment	0,622	0,618
Tridharma Performance	0,483	0,472

Table 4 provides information that the work from anywhere technology adaptation variable for lecturers contributes 62.2% in predicting the level of work commitment of the lecturer. The influence of these variables together with work commitment predicts 48.3% of the lecturer's tridharma performance level.

Table 5. Direct, Indirect and Total Effect

Relationship	Path coefficient	Indirect Effect	Total Effect	p-Values
Commitment -> Tridharma Performance	0,521	0,000	0,521	0,000
Technology Adaptation -> Commitment	0,789	0,000	0,044	0,000
Technology Adaptation -> Tridharma Performance	0,206	0,410	0,044	0,000

Table 5 shows that the research model identifies the readiness of work from anywhere adaptation to have a significant influence on the formation of commitment and performance of lecturers' tridharma with a significance level of 0.000 <0.05. The table also shows that lecturer commitment has a significant influence in improving lecturer performance in completing the Tridharma of Higher Education. The indirect effect analysis shows that adaptation to work from anywhere (WFA) technology has an effect of 0.410. This indirect effect is greater than the direct effect which indicates that the influence of WFH adaptation readiness has a stronger role in building the performance of the tridharma of higher education if it is through the formation of lecturer commitment in implementing the tridharma of higher education.

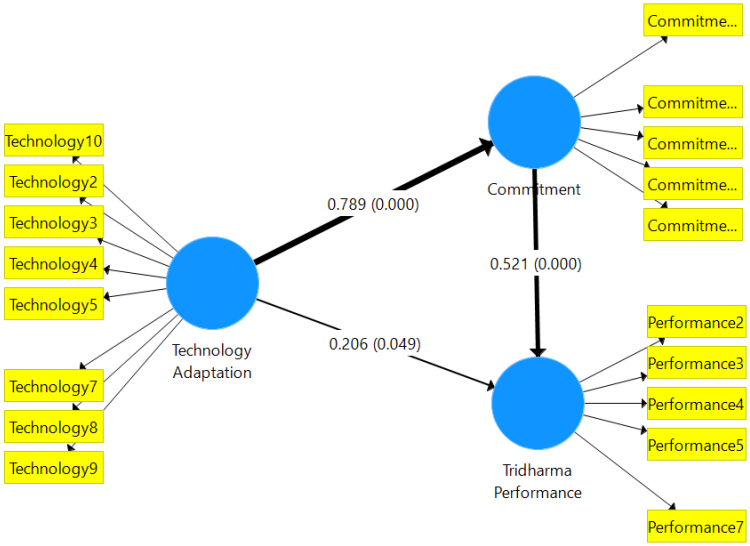

Fig 3. Research Model Analysis of Work From Anywhere

This study shows that the readiness to adapt to work from anywhere technology has a positive and significant influence on the formation of lecturer commitment in Medan City with a path coefficient value of 0.789 and a significance level of 0.000 <0.05. The more prepared the lecturer is to use technology that supports WFA, the higher the level of commitment shown by the lecturer. A lecturer who is able to adapt to WFA technology such as having supporting facilities and being able to operate a system that supports WFA will make the lecturer more prepared in carrying out his duties and role as an educator at the university where he works. If tertiary institutions are able to facilitate the readiness of lecturers in terms of equipment and the readiness of lecturers' abilities, lecturers will have more confidence and

give their best commitment in carrying out their duties to lecturers [4]. These results also indicate that WFA's readiness in carrying out their duties supports a strong bond between lecturers and the university where they teach.

This study also shows that the readiness to adapt to work from anywhere technology has a positive and significant influence on the formation of the tridharma performance of lecturers in Medan City with a path coefficient value of 0.206 and a significance level of 0.049 <0.05. The more ready the lecturers are to use technology that supports WFA, the higher the performance of the lecturer's tridharma [9]. The ability to manage supporting equipment and technology that supports WFA will improve performance as measured by the implementation of the lecturer's main duties. Lecturers who are well facilitated will be able to carry out teaching activities better. Guidance can also be done anytime and anywhere during the agreed hours so that the implementation of education becomes more efficient. In terms of research and service, it can also be done online so that it becomes efficient in terms of time, energy and costs.

The results of this study also show that lecturer commitment has a positive and significant influence on the formation of lecturer tridharma performance in Medan City with a path coefficient value of 0.521 and a significance level of 0.000 <0.05. The higher the lecturer's commitment to supporting WFA, the higher the performance of the lecturer's tridharma. In general, a lecturer who is fully committed to his duties will produce better performance. Lecturers with strong ties to where they teach will dedicate their best time to the advancement of the college [17].

Analysis of the indirect effect shows that adapting to work from anywhere technology has a positive and significant influence on the formation of lecturer tridharma performance in Medan City through the formation of lecturer work commitments with an indirect effect value of 0.410 and a significance level of 0.000 <0.05. As a note, the influence of the indirect effect is greater than the direct effect of 0.206. This indicates that the proportion of the influence of WFA adaptation has a bigger role if it is able to build the lecturer's commitment. Thus, the influence of WFA will be stronger if this adaptability is able to create dedication in the form of organizational commitment.

5 Conclusion

The presence of work from anywhere allows the implementation of lecturer assignments to be transferred to a remote function. Teaching and learning activities were transferred online so that lecturers and students could carry out lectures without having to meet in person. In practice, lecturers obtain convenience and time flexibility so that they are able to improve the performance of other tridharma in general, both in the implementation of research and community service. Therefore, the ability to adapt to the WFA system needs to be optimized to support the performance of lecturers in the future.

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