The Influence of Logical Thinking, Work Place, Work Achievement, Work Motivation on Employee Performance through Innovation as Middle Variables in Regional Secretariat of Brebes Regency

Agus Redi Susanto [1] ,Tabrani[2] , Mahben Jalil[3]
{ agusredi1@gmail.com[1] , tabrani312@gmail.com[2] , jalilmahben@gmail.com [3]}

Magister Management , Universitas Pancasakti Tegal, Indonesia

Abstract. Innovation encourages employees to have solutions, introduce something new and superior, be creative and make updates, and solve problems with appropriate solutions. innovation can only grow in a space full of differences, diverse perceptions, and rich in scenarios. Everyone must dare to be different and do not have to be of the same mind but when the final decision has been taken and determined, then everyone must unite in solidity and collaboration to make the decision come true. Good employee performance is supported by having the ability and knowledge of the characteristics of his work so that it will help employees in completing their work. Thus, based on the results of the analysis and study, it can be concluded that logical thinking, workplace, work performance, work motivation has a positive effect on employee performance in the organization and is proven to be significant.

Keywords: logical thinking, workplace, work performance, work motivation, innovation, employee performance

1. Introduction

The Regional Secretariat of Brebes Regency needs staff to carry out activities on a regular basis to achieve the desired goals. Therefore, employees are required to provide maximum quality of performance to achieve these goals. Employees must be able to think logically when analyzing. a situation as expected will emerge an acceptable solution because the workplace here can directly affect the performance of employees in doing their work so that the results can ultimately improve organizational performance with high innovation and initiative, work performance is the work done by an employee can be achieved in carry out their duties based on skills and accuracy in the use of time, work motivation is the desire of employees to achieve organizational goals to the fullest, innovation can have a positive and meaningful effect, Judging from employee performance, innovation is the description of a new idea or idea with the aim of solving a problem in order to improve employee performance. [1] Employee Performance is a record of the results produced for certain job functions or activities over a certain period of time. (Bernardin, 2001). [2] Innovation is the ability to apply creativity in order to solve problems and opportunities to improve and enrich life (Zimmerer

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and Scarborough, 2008) . [3] Logical Thinking is think sensibly and think systematically, or also known as system thinking (Andriawan, 2014:1). [4] The workplace or work environment is everything that is around employees and can affect the performance of the tasks assigned to them, for example with air conditioner (AC), adequate lighting and so on (Afandi, 2018:65). [5] Work Performance is the result of work in quality and quantity achieved by an employee in carrying out his duties in accordance with the responsibilities given to him (Anwar Prabu Mangkunegara, 2009: 67). [6] Work Motivation is is something that creates enthusiasm or work motivation, where the strength or weakness of an employee's work motivation contributes to determining the size of the achievements achieved (Waxley and Yukl, 1992: 75).

It can be seen from the amount of quality and quantity that is less or even unsatisfactory. This is shown that there are still civil servants who are less responsible for their work due to factors that influence them, including: a. low logical thinking where there are several employees who have not been able to complete their work, b. low workplace, namely there are still employees who are not comfortable in the room while working, c. low work performance that is still found employees who are less able to achieve work results both quality and quantity of tasks assigned by superiors, d. low motivation, namely there are still employees who cannot complete the work on time, e. The low level of innovation is that there are still many employees who come up with new ideas to solve the problems they face at work. The five factors mentioned above can affect the performance of employees at the District Secretariat. Brebes. Placement of resources, especially human resources, cannot be considered easy because employees must have a sense of belonging to the organization where they work. In other words , if an employee's performance is good, individual performance is likely to affect the performance of a company, the company's performance is also good. An employee's performance can be good if it is supported by the abilities and knowledge possessed regarding the characteristics of his work, so that it will help employees in completing their work.

2. Method

The population is all the elements whose characteristics will be estimated, the population in this study are employees at the Regional Secretariat of the Brebes Regency considering the total population of 115 people, the researchers did not take samples .

The sample is part of the records taken from the entire object of research and is considered to represent the correct picture of the population. According to (Sugiyono, 2014:68), the meaning is: a technique for determining research samples with certain considerations at making the data obtained more representative. That: the saturated sampling technique is a sampling technique when all members of the population are used as samples. So that the samples taken later in accordance with the research objectives can solve research problems and can provide more representative values. So that the technique taken can meet the actual purpose of doing research. So that the sample used by taking all the population at the Regional Secretariat of Brebes Regency is 115 people.

3. Result and Discussion

This chapter presents an overview of research data obtained from the results of respondents' answers, data processing and analysis of the results of data processing. The results of data processing will then be used as a basis for analysis and answer the proposed research hypothesis. Descriptive data analysis is used to describe the condition of respondents' answers for each variable. The questionnaires given to the respondents were 115 questionnaires. The results of these answers are then used to obtain the tendency of respondents' answers regarding the condition of each research variable.

3.1. Respondent's Education Level

The education level of the respondents in this study can be seen in the table as follows:

Table 1. Respondent's Education Level

No	Education	Amount	Percentage
1	Elementary School	3	3
2	JUNIOR HIGH SCHOOL	7	6
3	SENIOR HIGH SCHOOL	25	22
4	Diploma	2	2
5	Bachelor Degree	65	56
6	Master Degree	13	11
	Total number	115	100

Table.1 shows that the education level of respondents who have elementary school as many as 3 people (3%), junior high school as many as 7 people (6%), high school as many as 25 people (22%), bachelor degree as many as 65 people (56%), master degree as many as 13 people (11%). This means that the majority of respondents in this study have an undergraduate education level.

3.2. Respondent's Age

The age of the respondents in this study can be seen in the table as follows:

Table 2. Respondent's Age

No	Age	Amount	Percentage
1	< 30 years old	10	9
2	31 – 40 years	21	18
3	41 – 50 years	47	41
4	> 51 years old	37	32
	Total number	115	100

Table 2 shows that the age of respondents who are < 30 years is 10 people (9%), 31-40 years is 21 people (18%), 41-50 years is 47 people (41%), > 51 years is 37 people (32%). This means that the majority of respondents in this study are 41-50 years old.

3.3. Respondents Working Period

The working period of respondents in this study can be seen in the table as follows:

Table 3. Years of service

No	Years of service	Amount	Percentage
1	≤ 10 years	16	14
2	11 – 20 years	70	61
3	21 – 30 years old	20	17
4	≥ 31 years old	9	8
	Total number	115	100

Table. 3 shows that the working period of respondents who are < 10 years is 16 people (14%), 11-20 years is 70 people (61%), 21-30 years is 20 people (17%), > 31 years is 9 people (8%). This means that the majority of respondents in this study have a working period of 11-20 years.

3.4. Respondent Group

The group of respondents in this study can be seen in the table as follows:

Table 4. Respondent Group

No	Group	Amount	Percentage
1	I	3	3
2	II	26	23
3	III	74	64
4	IV	12	10
	Total number	115	100

Table. 4 shows that the working period of respondents in group I is 3 people (3%), group II is 26 people (23%), group III is 74 people (64%), group IV is 12 people (10%). This means that the majority of respondents in this study have group III.

3.5. Validity Test and Reliability Test

Confirmatory factor analysis (CFA) in the construct validity test is used to test the unidimensionality of the dimensions that explain the latent factors of exogenous constructs and endogenous constructs. To see the correlation of each exogenous variable and endogenous variable, it can be seen from the loading factor value of each indicator. The data is said to be valid, if the loading factor value has been above 0.5 . The following are the results of the exogenous construct validity test and the endogenous construct test results.

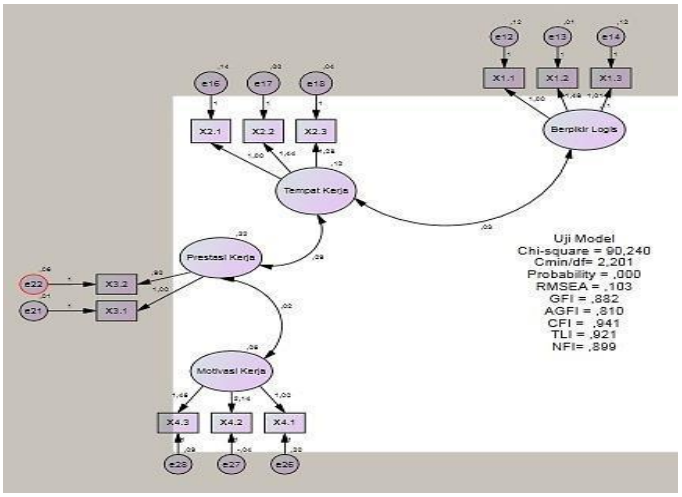

Figure 1. Exogenous Confirmatory Factor Analysis Test

It can be seen in Figure 4.1. The results of the confirmatory factor analysis (CFA) for exogenous variables show the values of the Chi-Square, RMSEA, GFI, CMIN/DF, TLI and CFI indexes that meet the criteria for goodness of fit index. Meanwhile, Probability and AGFI meet the requirements marginally. It can be said that overall this exogenous construct model meets the requirements and is accepted.

Table 5. Exogenous Confirmatory Factor Analysis Test

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			Estimate	Criteria
X1.1	<---	Logical Thinking	0.686	Valid
X1.2	<---	Logical Thinking	0.986	Valid
X1.3	<---	Logical Thinking	0.695	Valid

X2.1	<---	Workplace	0.684	Valid
X2.2	<---	Workplace	0.997	Valid
X2.3	<---	Workplace	0.914	Valid
X3.1	<---	Work performance	0.974	Valid
X3.2	<---	Work performance	0.875	Valid
X4.1	<---	Work motivation	0.482	Valid
X4.2	<---	Work motivation	1.075	Valid
X4.3	<---	Work motivation	0.758	Valid

Meanwhile, seen from the results of testing the exogenous construct model in Table 4.5 it shows that all indicators of exogenous variable questions have a value of more than 0.5 . So that it can be said that all indicators of exogenous variable questions are declared valid.

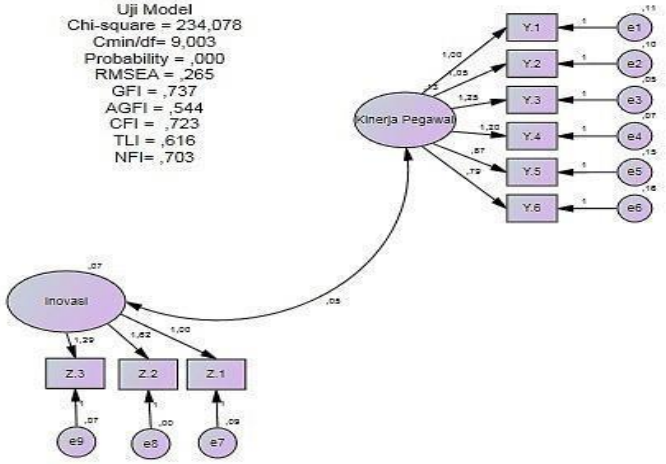

Figure 2. Endogenous Confirmatory Factor Analysis Test

In Figure 2 the results of the confirmatory factor analysis (CFA) of endogenous variables show the values of the Chi-Square, RMSEA, GFI, CMIN/DF, TLI and CFI indexes that meet the criteria for goodness of fit index. Meanwhile, Probability and AGFI meet the requirements marginally. It can be said that overall this endogenous construct model meets the requirements and is accepted.

Table 6. Endogenous Confirmatory Factor Analysis Test

			Estimate	Criteria
Y.1	<---	Employee Performance	0.731	Valid
Y.2	<---	Employee Performance	0.762	Valid
Y.3	<---	Employee Performance	0.899	Valid

Y.4	<---	Employee Performance	0.856	Valid
Y.5	<---	Employee Performance	0.631	Valid
Y.6	<---	Employee Performance	0.577	Valid
Z.1	<---	Innovation	0.655	Valid
Z.2	<---	Innovation	1.002	Valid
Z.3	<---	Innovation	0.79	Valid

Meanwhile, seen from the results of testing the endogenous construct model in Table 4.6, it shows that all indicators of endogenous variable questions have a value of more than 0.5 . So that it can be said that all indicators of exogenous variable questions are declared valid.

a. Construct Test Reliability

Confirmatory factor analysis (CFA) in construct test Reliability is used to indicate the extent to which a measuring instrument can provide relatively the same results when measurements are made twice or more on the same subject. Furthermore, to find out the results of the construct reliability test, the Construct Reliability formula is used as follows:

$$Construct\ Reliability = \frac{(\sum standardized\ loading)^2}{(\sum standardized\ loading)^2 + \sum \varepsilon j}$$

Information:

- *Standard loading* is obtained from the results of the estimated *standardized loading* for each indicator obtained through the amos output .
- j is the *measurement error* of each indicator, the *measurement error* can be obtained 1-indicator reliability.

Table 7. Reliability Test

Variable	Indicator	Standard Loading	Standard Error	Reliability construct	Criteria
Employee Performance	Y.1	0.736	0.018	0.994857789	Reliable
	Y.2	0.763	0.017		
	Y.3	0.895	0.011		
	Y.4	0.853	0.013		
	Y.5	0.635	0.021		
	Y.6	0.582	0.023		
	Z.1	0.655	0.013	0.994023715	Reliable

Innovation	Z.2	1.002	0.012		
	Z.3	0.79	0.011		
	X1.1	0.686	0.019	0.989579081	Reliable
Logical Thinking	X1.2	0.986	0.022		
	X1.3	0.695	0.018		
	X2.1	0.684	0.018	0.994682442	Reliable
Workplace	X2.2	0.997	0.009		
	X2.3	0.914	0.009		
Work Achievement	X3.1	0.974	0.018	0.990152922	Reliable
	X3.2	0.875	0.016		
	X4.1	0.482	0.026	0.985292022	Reliable
Work motivation	X4.2	1.075	0.034		
	X4.3	0.758	0.02		

Based on the results of the calculation of the reliability construct test in Table 4.7 shows the value of *construct reliability* on the Employee Performance variable is 0.994857789 , Innovation is 0.994023715 , Logical Thinking is 0.989579081, Workplace is 0.994682442, Work Performance is 0.990152922 and Motivation Work is 0.985292022 . According to Hair (2017), if an indicator with a *construct reliability index of* more than 0.7 is declared acceptable or reliable. Thus, the results of the reliability construct test show that all indicators are acceptable or reliable with a value > 0.7 .

Table 8. Hypothesis Test Results

No	Hypothesis	P	Limit	Information
1.	Influence of Logical Thinking on innovation	0.013	≤ 0.05	there is influence
2.	Influence of the Workplace on innovation	0.01	≤ 0.05	there is influence
3.	The Effect of Job Performance on Innovation	0.592	≥ 0.05	No influence
4.	The Influence of Work Motivation on Innovation	0.726	≥ 0.05	No influence
5.	The Effect of Logical Thinking on Employee Performance	0.136	≥ 0.05	No influence
6.	The Effect of Workplace on Employee Performance	0.028	≤ 0.05	there is influence

7.	The Influence of Work Performance on Employee Performance	0.87	≥ 0.05	No influence
8.	The Effect of Work Motivation on Employee Performance	0.576	≥ 0.05	No influence
9.	The Effect of Innovation on Employee Performance	0.000	≤ 0.05	there is influence

a) To test the hypothesis that logical thinking has an influence on innovation .

The parameter estimated value of the *standardized regression weight coefficient* between logical thinking and innovation is 0.013, testing the relationship between the two variables shows a probability value of 0.013 ($p \leq 0.05$) from the estimate value of 0.226, thus H1 is **supported** because there is a significant positive relationship between logical thinking and innovation. . This is reinforced by the results of data processing which shows the probability value of 0.013 has met the requirements ≤ 0.05 and the positive direction is seen from the estimate 0.226, so it can be concluded that logical thinking has a significant positive effect on innovation, so that the higher the logical thinking possessed by employees, the innovation. will be higher. The results of this study support the study conducted by (Novia Sari, 2020) , (Noviani et al., 2020) . Shows that logical thinking affects innovation, logical thinking ability is an activity in drawing conclusions, drawing conclusions, and solving problems. The habit of questioning things in detail will also make you know which information is clear sources, facts, or just assumptions, when you are able to understand something from many points of view it will certainly make it easier to make a decision even in difficult circumstances so that it can affect employees in carrying out their duties. duties and work to create new innovations .

b) To test the hypothesis that t four jobs have a direct effect on innovation.

The estimated parameter value of the *standardized regression weight coefficient* between the workplace and innovation is 0.01 , the test of the relationship between the two variables shows a probability value of 0.01 ($p \leq 0.05$) from the estimate value of 0.234, thus H2 is **supported** because there is a significant positive relationship between workplace with innovation. This is reinforced by the results of data processing which shows the probability value of 0.01 has met the requirements ≤ 0.05 and the positive direction is seen from the estimate 0.234, so it can be concluded that the workplace has a significant positive effect on innovation, so that the more comfortable the employee's workplace is, the more comfortable the employee will be. innovation will increase. The results of this study are in accordance with previous research conducted by (Sazly & Permana, 2020) . Shows that the workplace has an effect on innovation, if the employee likes the work environment in which he works, the employee will feel at home in his workplace to carry out activities so that work time is used effectively and optimistically that employee work performance is also high and can improve organizational performance in making innovations to help fluency in the field of tasks and work.

c) To test the hypothesis that job performance becomes an influence in innovation.

The parameter estimated value of the *standardized regression weight coefficient* between work performance and innovation is 0.592. The test of the relationship between the two variables shows a probability value of 0.592 ($p \geq 0.05$) from the estimate value of -0.035, thus H3 **is not supported** because work performance does not have a significant effect. towards

innovation. This is reinforced by the results of data processing which shows the probability of 0,592 not meeting the requirements $\leq$ 0,05 . So it can be concluded that the hypothesis which states that work performance has no significant effect on innovation, so that the higher a person's achievement, the innovation of the employee is not proven. The results of this study are not in accordance with previous research conducted by (Dwi Mardiyanti, 2019). Shows that work performance affects innovation, a person's work based on the burden of responsibility given to him produces quality work that is expected to produce new innovations and can be used in carrying out daily routine activities.

d) To test the hypothesis that work motivation affects innovation.

The estimated parameter value of the *standardized regression weight coefficient* between work motivation and innovation is 0.726, testing the relationship between the two variables shows a probability value of 0.726 ($p \geq 0.05$) from the estimated value of 0.038, thus H4 **is not supported** because there is no significant effect between work motivation with innovation. This is reinforced by the results of data processing which shows the probability value of 0.726 does not meet the requirements $\leq$ 0.05 and can be seen from the estimate 0.038, so it can be concluded that work motivation has no significant effect on innovation, so the higher the work motivation of employees, the innovation of an employee. not proven. The results of this study are not in accordance with previous research conducted by (Noor, 2012), (Mujahidah, 2019). Shows that work motivation affects innovation, motivation means all things that can encourage or move someone to do or not do an activity in the form of an innovation .

e) To test the hypothesis that logical thinking has to do with performance.

The estimated parameter value of the *standardized regression weight coefficient* between logical thinking and employee performance is 0.136. The test of the relationship between the two variables shows a probability value of 0.136 ($p \geq 0.05$) from the estimate value of 0.16, thus H5 **is not supported** because logical thinking has no effect. which is significant to employee performance. This is reinforced by the results of data processing which shows the probability value of 0.136 does not meet the requirements $\leq$ 0.05 and the results can be seen from the estimate 0.16, so it can be concluded that the hypothesis that logical thinking has a significant effect on employee performance is not proven. The results of this study are not in accordance with previous research conducted by (Auniyah et al., 2020) . Shows that logical thinking affects employee performance, by thinking logically means having to be able to analyze each data carefully and draw conclusions without having to involve emotional feelings. So that it can improve employee performance in the tasks and jobs assigned by superiors .

f) To test the hypothesis that the workplace affects employee performance.

The estimated parameter value of the *standardized regression weight coefficient* between the workplace and employee performance is 0.028, testing the relationship between the two variables shows a probability value of 0.028 ($p \leq 0.05$) from the estimate value of 0.244. Thus, H6 is **supported** because the workplace has a significant positive influence on employee performance. This is reinforced by the results of data processing which shows the probability of 0.028 has met the requirements $\leq$ 0.05 . So it can be concluded that the hypothesis that the workplace has a significant effect on employee performance will be higher. The results of this study are in accordance with previous research conducted by (Sihaloho & Siregar, 2019) . Shows that the workplace has an effect on employee performance, work has a

direct influence on employees in completing work which in turn can improve the performance of both employees and the organization .

g) To test the hypothesis that work performance can affect performance.

The estimated parameter value of the *standardized regression weight coefficient* between work performance and employee performance is 0.87, testing the relationship between the two variables shows a probability value of 0.87 ($p \geq 0.05$) from the estimated value of -0.014, thus H7 **is not supported** because of work performance. does not have a significant effect on employee performance. This is reinforced by the results of data processing which shows a probability value of 0.87 not meeting the requirements ≤ 0.05 and the results can be seen from the estimate-0.014, so it can be concluded that the hypothesis that states work performance does not have a significant effect on employee performance. The results of this study are not in accordance with previous research conducted by (Novianty, 2015). Shows that the workplace has an effect on employee performance, a work result achieved by a person in carrying out the tasks assigned to him based on skill and sincerity and time can improve the performance of both employees and the organization .

h) To test the hypothesis that work motivation has an effect on employee performance.

The estimated parameter value of the *standardized regression weight coefficient* between work motivation and employees is 0.576, testing the relationship between the two variables shows a probability value of 0.576 ($p \geq 0.05$) from the estimated value of 0.071, thus H8 **is not supported** because there is no significant effect between work motivation. with employee performance. This is reinforced by the results of data processing which shows the probability value of 0.576 does not meet the requirements ≤ 0.05 and can be seen from the estimate 0.071, so it can be concluded that work motivation has no significant effect on employee performance, so the higher the work motivation of employees, the innovation of an employee. employee is not proven. The results of this study are not in accordance with previous research conducted by (Risparyanto, 2017). Shows that the workplace has an effect on employee performance, Work motivation simply means things that encourage or move someone to do or not do something that can improve the performance of both employees and the organization .

i) To test the hypothesis that is innovation has a positive effect on employee performance.

The estimated parameter value of the *standardized regression weight coefficient* between innovation and employee performance is obtained at 0.000, testing the relationship between the two variables shows a probability value of 0.000 ($p \leq 0.05$) from the estimate value of 0.588, thus H9 is **supported** because there is a significant positive relationship between innovation and employee performance. . This is reinforced by the results of data processing which shows a probability value of 0.01 has met the requirements ≤ 0.05 and a positive direction is seen from the estimate 0.000, so it can be concluded that innovation has a significant positive effect on employee performance, so that the higher the innovation a person has, the higher the performance. employees will be higher. The results of this study are in accordance with previous research conducted by (Dama, 2018) . Shows that the workplace affects employee performance, employees who have special skills in solving problems at work, so that the work done is completed on time and more effectively and also more accurately so it can be concluded that innovation affects employee performance.

4. Conclusion

The framework of thinking is the concept of explaining the relationship between variables, either directly or indirectly in a study. Performance is the result of achievement or work that can be measured both qualitatively and quantitatively, and describes the extent to which an organization has succeeded in achieving the goals it has set. Thus, the performance of an organization can be measured from the performance of its employees.Thinking logically in completing work is very important because it allows you to think properly, so that you are able to take an action correctly, and also more efficiently. So that it can improve employee performance in the tasks and jobs assigned by superiors. A good workplace can facilitate the organization in realizing its vision and mission, so that employee performance productivity can be achieved in accordance with what is an organization's program. Work performance is the most important thing that must be owned by an employee because then the higher the work performance possessed by the employee is expected to show the results of his performance can be measured for the sustainability of an organization. An employee's work motivation can be used as a benchmark for achieving employee performance. The higher the work motivation possessed by an employee, the higher the performance produced in the field and job duties. Continuous innovation will cause the organization to keep abreast of increasing sophisticated and efficient technological developments. Thus, based on the results of the analysis and study, it can be concluded that logical thinking, workplace, work performance, work motivation and innovation have a positive effect on employee performance in the organization and has been proven to be significant.

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