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The Mediating Effect of On the Job Training for Work Ability on Productivity Improvement Politeknik Matra Udara's Cadets

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Abstract. The primary goal of this study is to analyze the impact of work performance on productivity and to analyze the role of on-the-job training (OJT) variables in mediating independent variables against dependent variables at Politeknik Matra Udara. The process of gathering data influences the researcher's decision to provide the questionnaire to the respondent. This study uses a quantitative approach, using structural equation modeling (SEM) for analysis, and utilizes the Smart-PLS statistical tool. Using a 5% significance level, the research sample examines the tables Isaac and Michael. The sample of this study consisted of 115 employees from various departments in the airport electrical division of Politeknik Matra Udara who had completed the on-the-job training (OJT) program. The analysis's findings indicate that positive work-related behavior has a significant impact on tardiness productivity. This indicates that when an individual's work performance increases, so does their productivity. In conclusion, on-the-job training, or OJT, has been shown to be a significant mediator in the relationship between work performance and turnover productivity. This indicates that on-the-job training has a critical role in increasing productivity.

Keywords. On the Job Training, Work Ability, Productivity, Cadets, Politeknik Matra Udara

1. Introduction

Every institution uses various resources to achieve its goals. Human resources are the most important component as they are an essential part of the company's development. Human resources are essential to all company operations [1]. Despite sophisticated technology, without human assistance in operations, the company will not be able to achieve the expected results. People who work to run the company's operations will work well and efficiently if they have reliable abilities and expertise in their fields. [2]

Ability is a person's ability to complete various tasks in the workplace. In a company, ability is needed so that workers can complete all assigned tasks. Managers in an organization or agency must pay attention to several important components such as abilities that affect the work productivity of their employees. [3]

Because humans function as planners, actors, and determinants of the realization of organizational goals, employees always play an active and dominant role in every organizational activity. A company policy must encourage employees to become more

productive in accordance with the plans that have been implemented because effective and directed use of labor is the key to increasing employee productivity. Therefore, after employees are recruited, selected, and appointed, they are then developed to become more suitable for their jobs and the organization. [4]

The current human resources are still low in terms of sewing skills and other expertise. Now the problem is how to create ideal human resources to achieve the company's goals. Organizations cannot function without people. The current human resources are still low in terms of sewing skills and other expertise [5]. Now the problem is how to create ideal human resources to achieve the company's goals. Organizations cannot function without people [6].

Human resource management is the key to a company's success. A skilled and qualified workforce is required to achieve company goals. This can be achieved through training that can increase employee productivity to achieve maximum results. Learning and training is an effort to improve human resources, especially to improve intellectual abilities and human personality [7].

Training makes employees better able to achieve company goals. Both companies and employees benefit a lot from training [8]. For employees, training gives them the opportunity to improve their knowledge, skills and work performance, and for companies, training maintains a stable relationship between companies and employees.

However, basically, the problem that will arise is the availability of high-quality human resources. Including the Air Matra Polytechnic also experiences problems regarding organizational progress that is not correlated with current human resources. this phenomenon is indicated by the data contained in the following 2022 BPSDM Transportation Performance Report. [9]



Figure 1: Level of Transportation Training Graduates that are Competency Certified in 2022

In the performance indicator of graduates of transportation training who are competency certified, the realization value in 2020 is 134.78 from the target of 91.15 people as projected in Figure 1. This achievement reflects the success of the training and certification program in the transportation sector. This significant increase in graduates not

only shows the effectiveness of the training program, but also indicates an increase in the quality and competence of human resources in the transportation sector. This success is expected to have a positive impact on improving services and safety in the Indonesian transportation sector. [10]

However, in other findings, researchers obtained data if the percentage of absorption of transportation training graduates in 2022 decreased in the 4th Quarter. This is illustrated in accordance with the following figure.



Figure 2. Realization of Absorption of Transportation Training Graduates in 2022

In the indicator of the absorption of transportation training graduates in 2022, researchers found a realization value of 69% of the target of 84.95% of people as projected in Figure 2. This shows a gap in the number of competency certified graduates who have been produced by on the job training activities, apparently not in accordance with the number of absorption of graduates in the world of work. This decline indicates that there are challenges in the process of absorbing Transportation Training graduates into the world of work. This phenomenon may be caused by various factors, such as changes in industry needs, economic conditions, or a mismatch between graduate skills and labor market demand in the transportation sector [11]. This situation requires further evaluation and adjustments to the strategy of implementing on the job training to increase the absorption rate of graduates in the future.

Employee productivity can reflect the productivity of a company or institution. The assessment results can be seen based on the company's productivity, which is indicated by employee productivity [12]. Therefore, employee productivity is closely related to company productivity. There is a strong relationship between individual productivity (individual achievement) and institutional productivity [13]. In other words, if the productivity of an employee is high, it is likely that the productivity of the company is also high.

High-quality human resources are essential to the achievement of company goals. Human resources play a major role in the process of increasing productivity because the

means of production and technology are essentially the work of humans [14]. Ability and motivation are two components that affect the achievement of employee productivity. Motivation comes from the employee's attitude towards the work situation in the company; employees must be mentally and physically ready, understand the situation and conditions, and strive to achieve the company's work goals.

Ability is another element that influences how productively employees perform. Ability is the capacity of an individual to do an action based on his mastery and comprehension of a variety of knowledge and skills [15]. Expertise and knowledge lead to ability. Interest, experience, and education all have an impact on knowledge. Both personality and talents impact expertise.

Based on the problem statement found by researchers from the results of the inequality between the number of graduates and the quality of graduates from on the job training, researchers try to find a solution to the problem by conducting a study entitled "The Mediating Effect of On the Job Training on the Effect of Work Ability on the Productivity of Air Matra Polytechnic Cadets". This is done with the aim of analyzing the evaluation of each variable that binds productivity, which in this study includes the performance ability of cadets as raw input and on the job training as a medium to achieve optimization of productivity itself. Analysis of the causes of success or failure through this research is carried out so that the improvement of the on the job training program can be improved and the opportunity for a decrease in the quality of graduates can be anticipated early. Thus, researchers can contribute in the form of alternative solutions to the performance indicators of the on the job training program in order to prepare raw inputs well before training and align on the job training with the demands of the development of the world of work.

1.1 Theoretical/Conceptual Framework

Work Ability on Productivity Improvement

Workplace productivity and work skills are related to each other. The ability of employees to do duties inside an organization is crucial [16]. An employee with stronger work abilities will undoubtedly know more about what to do in the event of a difficulty. Additionally, because they already possess the necessary skills, these workers will work more quickly and won't need to modify how they do their jobs. So that with the help of staff members who already possess knowledge and expertise in their specialized fields, the business will be able to accomplish its objectives more quickly.

Numerous factors affect how productive employees are at work. These include internal factors that are specific to the employees, such as their education, skills, discipline, attitudes, motivation, diet, and health, as well as external factors that are related to the workplace, government policies, wages, means of production, climate, and work environment. [17]

Work Ability on Productivity through On the Job Training (OJT) as Mediating Variables

The employee's work productivity is affected by their work capacity. Productivity at work is a measure of an employee's ability to do their job duties when carrying out their duties. Because they can do jobs more quickly and effectively, workers with strong work abilities can produce more. The dynamics of the link between the two variables, however, may be influenced by the mediating variable's function in on the job training. Through on

the job training, individuals can hone their skills in a real-world work environment. As a result, on-the-job training has the potential to act as a mediator, enhancing the connection between worker productivity and employability. Furthermore, how well the relationship between employability and employee productivity can be created through on the job training can also be influenced by external factors including individual motivation, management support, and the work environment. [18]

It is crucial to remember that there is a dynamic and intricate relationship between employee productivity, on the job training, and employability. The relationship between employability and productivity can be strengthened by on the job training, however its exact impact will depend on a number of contextual factors [19]. Examples of factors that can affect how successful on the job training is in increasing employability and, subsequently, employee productivity are training quality, individual motivation, and organizational support. Therefore, further research is required to fully comprehend how employability-boosting treatments like on-the-job training might boost employee productivity.

1.2 Operational Framework

The research hypothesis is discovered as a temporary solution to the research problem in line with the conceptual description and description in the theoretical framework above. The research problem can then be arranged as follows: First hypothesis, H1: Work ability has a direct effect on cadet productivity at the Air Matra Polytechnic, Second hypothesis, H2: There is an effect of work ability on cadet productivity through on the job training as a mediating variable at the Air Matra Polytechnic.

1.3 Operational Model

Moreover, the hypothesis model will be explained as follows in light of the study's hypothesis:

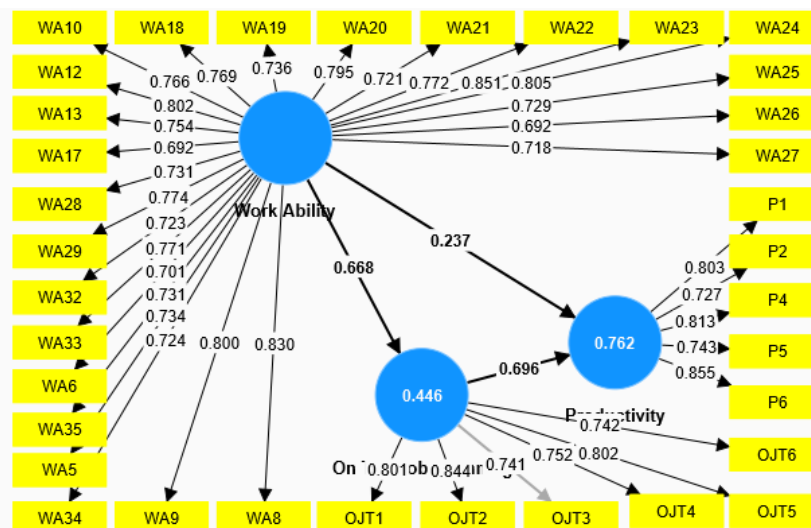


Figure 3. The Operational Model of The Study Shows Relationship Among Variables.

The results of the inner model test are shown in Table 5, where the R square value of 0.762 indicates that, because the value is more than 0.75, this group is included in the

strong group. This shows that there is a strong group that has a degree of change in the independent variable relative to the dependent. Based on the R2 test calculation, the table shows an Adjusted R Square value of 0.757, which shows that each independent variable has the ability to contribute or add 75.7% to the dependent variable. The remaining amount of 24.3% came from other factors that were not addressed by researchers in this study.

2. Methodology

Because the data is in the form of numbers, this research is quantitative [20]. This research focuses on the influence of independent variables on the dependent variable, but also considers mediating variables [21]. This study involved Air Force Polytechnic cadets. In this research, the Isaac and Michael tables are compared with a significance level of 5%. The sample for this research was 115 cadets from various airport Electrical Engineering Occupations at the Air Force Polytechnic. In this research, the analysis uses Structural Equation Modeling (SEM), as well as using the Smartpls statistical program.

Table 1. Gender Respondents

Gender	Number of Respondents	Percentage (%)
Male	107	93%
Female	8	7%
Total	115	100%

Source: data processed by researchers, (2024)

Secondary data, which was obtained indirectly from the Air Force Polytechnic, and primary data were obtained from questionnaires distributed via Google Forms. This study uses structural equation modeling (SEM) along with partial least squares (PLS) analysis. The SmartPLS application is used to perform calculations. Moving from a variance-based approach to a covariance-based approach, the alternative Partial Least Squares (PLS) method transforms structural equation modeling [22]. PLS is better suited for predictive models, but covariance-based SEM usually elicits theory or causation. Partial Least Square (PLS) is a very effective analysis method because it is not based on many assumptions, as shown by Guerro [23]. [22] Ghazali explained that the sample does not need to be too large and recommended between thirty and one hundred respondents. Additionally, he stated that it need not have a multivariate normal distribution. In the same model, indicators with categorical, ordinal, interval, or ratio scales can be used.

Table 2. Indicator of Latent Variable Variable Assessment Indicators

Variable & Reference	Indicator	Item
Work Ability	Knowledge	13
	Skill	10
	Work Experience	12
	Total item	35
On The Job Training	Assessment program	2
	Program planning	2
	Program delivery	1
	Program evaluation	1

Total Item		6
Produktivitiy	Operation Reliability	2
	Controlled Work-manegement	2
	Innovation productivity	2
Total item		6

Source: data processed by researchers, (2024)

3. Results and Discussion

Table 3 shows the results of the convergent validity test with the Loading Factor parameter. Cross loading value > 0.70 , measurement of different constructs should not be high. From the cross loading estimation results in the table above, it can be seen that the cross loading value is > 0.70 . The value of the work ability indicator item is still smaller than the cross loading value, namely (WA26 and WA17). This means that the construct variable does not have good discriminant validity, where in this block the construct indicators are no better than the indicators in other blocks [24]. The value of the Productivity indicator item is greater than the cross loading value. The value of the On The Job Taining indicator item is still greater than the cross loading value.

Table 3. Loading Factor

	OJT	PRO	WA
OJT1	0.801		
OJT2	0.844		
OJT3	0.741		
OJT4	0.752		
OJT5	0.802		
OJT6	0.742		
PRO1		0.803	
PRO2		0.727	
PRO4		0.813	
PRO5		0.743	
PRO6		0.855	
WA10			0.766
WA12			0.802
WA13			0.754
WA17			0.692
WA18			0.769
WA19			0.736
WA20			0.795
WA21			0.721
WA22			0.772
WA23			0.851
WA24			0.805
WA25			0.729

WA26	0.692
WA27	0.718
WA28	0.731
WA29	0.774
WA32	0.723
WA33	0.771
WA34	0.724
WA35	0.731
WA5	0.734
WA6	0.701
WA8	0.830
WA9	0.800

Source: data processed by researchers, (2024)

Discriminant validity can be done by looking at the Cross Loading value, which is a discriminant validity approach by looking at the correlation between one indicator and another. The cross loading value based on the results in this SEM is as follows.

Table 4. Discriminant Validity-Cross Loadings

	(rho-A)	Crombach's Alpha	Composite Reliability	Average Variance Extranced (AVE)
On The Job Training	0.872	0.875	0.904	0.61
Productivity	0.849	0.864	0.892	0.623
Work Ability	0.967	0.968	0.97	0.572

Source: data processed by researchers, (2024)

Table 4 shows the evaluation of discriminant validity with the average variance extracted (AVE) variable parameters. Validity and reliability tests were carried out to test the instrument. The instrument was tested on 30 people who were not included in the research sample before being announced to the sample. Since the average variance extracted (AVE) value is more than 0.5, the latent variable can explain more than half of the indicator variation on average. Composite dependency values of more than 0.70 can be used to measure the precision, accuracy and consistency of instruments when measuring construction. Next, a reliability test was carried out using Cronbach's alpha value, and the results showed that the following variables were reliable: On The Job Training 0.872, Productivity 0.849, and Work Ability 0.967, all with a value of more than 0.70, which shows that these variables are reliable.

Table 5. R-Square

	R Square	Adjusted R Square
Productivity	0.762	0.757

Source: data processed by researchers, (2024)

Table 5. Hypothesis Test

	Original Sample (O)	Sample mean (M)	Standart Deviation (STDEV)	T Statistics (IO/STDEV)	P values
Work ability -> productivity	0.237	0.241	0.065	3.669	0.000
Work ability -> On the job training -> productivity	0.465	0.464	0.060	7.729	0.000

Source: data processed by researchers, (2024)

The individual partial regression coefficient test is used to determine whether the independent variable (X) influences the dependent variable (Y) and whether the mediating variable is individual. The results of the partial hypothesis test, which are based on Smartpls 4 calculations, are as follows:

Work ability has a simultaneous effect on productivity

The work ability variable produces a coefficient parameter of 0.237 with a significance threshold of 0.000 less than 0.05. Because H0 is accepted, "there is an influence between work ability and productivity". This is in line with research Sudarman et al and Gumilar et al., [25], [26] which states that work ability can influence productivity. Therefore, it can be concluded that cadets who have high work abilities will also produce high productivity. High work ability is an important factor that determines how efficient a person is in completing tasks individuals with high work ability tend to achieve better results in less time because they have a better understanding of the tasks at hand, as well as knowledge and skills it takes to get it done better than anyone else.

Mediates on the job training the effect of work ability on productivity

The work ability variable produces a coefficient parameter of 0.465 with a significance of 0.000 < 0.05. Therefore, H0 is accepted which states that "on-the-job training can mediate the effect of work ability on productivity." This is in line with research conducted by Kartika et al and gumilar et al [26], [27] which found that workplace training can mediate the effect of work ability on productivity. This is due to the fact that on-the-job training is a program that provides employees with the opportunity to increase their understanding of the dynamics that occur in the real workplace. As a result, employees who

take part in programs such as on-the-job training will have better performance abilities and higher levels of productivity.

4. Conclusions

Based on the results and discussion above, it is concluded that work ability may have an impact on productivity. High work ability is an important factor that determines how efficient a person is in completing tasks. Individuals with high work ability tend to achieve better results in a shorter time because they have a better understanding of the tasks being led, as well as knowledge and skills. It takes to get it done better than anyone else. On the job training can mediate the influence of work ability on productivity because this program provides cadets with the opportunity to increase their understanding of the dynamics that occur in the real workplace.

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