# ANALYSIS OF THE EFFECT OF TRAINING ON EMPLOYEE WORK PRODUCTIVITY THROUGH INTERVENING VARIABLES OF EMPLOYEE COMPETENCE, AND THE EFFECT OF WORK PRODUCTIVITY ON COMPANY PERFORMANCE (CASE STUDY OF TRAINING PARTICIPANTS AT BNI CORPORATE UNIVERSITY)



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# ABSTRACT

Employee productivity is a very important factor in supporting business success. High productivity will be very beneficial for both the organization and its employees, especially for their welfare. This research measures the effectiveness of the training provided to increase competence, productivity and even company performance. The variables in this study are training, employee competence, employee productivity and company performance. The research method uses Structural Equation Modeling (SEM) assisted with Lisrel software. The results of the study stated that training has a positive effect on employee competence. Training positive effect on work productivity. Employee competence has a positive effect on work productivity. Employee competence mediates the effect of training on work productivity. Work productivity has a positive effect on company performance.

**Keywords:** Training, Employee Competence, Employee Productivity, Company Performance

# **1. INTRODUCTION**

Human resources are the only resources that have the ratio, taste and intention that affect the organization's efforts in achieving goals because they are the driving force of all the resources owned by the organization. For this reason, human investment is the most important investment that can be made by organizations whose goals lead to one end point, namely so that the organization has a number of quality workers, work discipline, dedication, loyalty, perception, efficiency, work effectiveness and work productivity and at the same time ultimately for improving organizational performance, not only for the present but also for the future.

The competence of employees in the company can be improved through training and education programs Sentosa (2016). In this case, the training that has been followed is expected to provide new insights to improve employee competencies consisting of skills, knowledge, attitudes, and

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business success. High productivity will be very beneficial for both the organization and its employees, especially for their welfare. Productivity also reflects the work ethic of employees which is also reflected in a good mental attitude. Employers and employees involved in a company must strive to increase their productivity Ardika (2014).

According to Usman (2013), two vital aspects of productivity are efficiency which relates to how well the various inputs are combined or how the work is carried out and effectiveness which relates to the fact that the expected results or output levels can be achieved. Thus, work productivity is very dependent on human resources who work and have a better scope. In the end, a training process that is able to increase employee competence and work productivity is expected to be able to improve the performance of the organization.

During 2018 BNI Corporate University has carried out 402 trainings with 49 types of training held domestically and abroad with funding that is certainly not small. However, up to now, BNI Corporate University does not have research to measure the effectiveness of the training provided to increase competence, productivity and even company performance.

### 2. HYPOTHESIS DEVELOPMENT

### 2.1. EFFECT OF TRAINING ON EMPLOYEE COMPETENCE

The ability to increase knowledge and competence turns out to be able to achieve the desire depending on the magnitude of the desire which can be done through training and education. As research results Okky Sandy Pranata et al. (2018) Based on the results of statistical analysis using the path analysis method, it can be seen that the job training variable has a positive effect on employee competence. The variable that has the most dominant effect is the Training Instructor. This could be because the company was right in choosing training instructors who have good qualifications in their fields so that they can carry out the training process properly so that employees of PT BTPN Syariah Sharia Mobile Marketing Division (MMS) Malang feel they can understand and apply the training materials and skills provided, by the training instructor into the job well after following the training process.

Similarly, the results of research from Aditya et al. (2015) who get the results that the training variable is able to affect the competence of employees at PT. PLN (Persero) Distribution of East Java Malang Area. In this case the company has been able to provide good job training to employees. The level of employee competence is said to be good if the company has provided good job training and maintains the work environment.

Furthermore, the effect between training and competence was also found in research conducted by Nabilah Rizkia Mokhtar (2017). The results of the study have shown that the training variable has a significant effect on the competency variable with the most dominant effect on the Competency of the Workforce is the Training Method. competent. Therefore, the proposed hypothesis is:

#### H1: Training has an effect on employee competence

#### 2.2. THE EFFECT OF TRAINING ON EMPLOYEE PRODUCTIVITY

Opportunities to increase knowledge through education and training such as giving study assignments, study permits, training, courses or the like to employees will increase work productivity for employees at work which will ultimately improve company performance.

Employees who are qualified and able to produce high work productivity are those who understand and understand what they are doing. Employees who have abilities that are in line with the needs of their duties and functions are a requirement for the creation of employees with high work productivity. In order for companies to get employees who have high work productivity, it is necessary to develop a pattern of resource development through training.

According to research results Neelam Tahir et al. (2014) that training affects employee productivity United Bank Limited Peshawar City, in Pakistan. Training and Development is an important aspect of HR. It is important for organizations to get skilled and capable employees for better performance, and employees will be more competent when they have the knowledge and skills to perform the tasks. Training and Development will provide opportunities for employees to make a better career life and get a better position in the organization. Thus, the efficiency of the organization will increase. On the other hand, employees are the resources and assets of the organization if they are skilled and trained will perform better than those who are unskilled and untrained.

According to research results which is conducted by Satria and Kuswara (2013) and research from Indriyani and Farlianto (2016) both obtained the results that the training variable has a positive and significant effect on employee work productivity. Furthermore, Indriyani and Farlianto (2016), states that good training brings benefits such as increasing employees' knowledge of culture and external competitors, helping employees who have the expertise to work with new technologies, helping employees to understand how to work effectively in teams for produce quality services and products, ensure that the company culture emphasizes innovation, creativity and learning, ensure safety by providing new ways for employees to contribute to the company at work. Therefore, the proposed hypothesis is:

H2: Training has an effect on employee work productivity

#### 2.3. THE EFFECT OF COMPETENCE ON EMPLOYEE WORK PRODUCTIVITY

The basic concept of competence starts from the concept of the individual which aims to identify, acquire, and develop individual abilities so that they can work with extraordinary productivity. Individuals are the main components who become actors in the organization. Therefore, the ability of the organization depends on the ability of the individuals who work in the organization. An organization can excel if the people who work in the organization can give maximum contribution to the company according to their duties and abilities. In other words, these people are able to work with high productivity, meaning that they are able to excel now and, in the future, both in stable situations and in changing situations, without interfering with the work of others.

Many studies have shown that employee competence will have an effect on employee work productivity. One of the studies, namely from Satria and Kuswara (2013) in their research, they found that the effect of Work Competence on the Productivity of Bandung City Transportation Service Employees was very significant.

Similar research results were also obtained from research conducted by Dr. Ir. H. Samsul Bahri. MM (2016) in his research, it was found that the work competence of employees proved to have a positive and significant effect on the productivity of the Public Works Department of Highways of South Sumatra region with the most dominant indicators influencing the indicators of knowledge, skills and abilities. In addition, the test results show that competence has a significant and positive effect on the work productivity of employees working at the UPP Class III Satui Office. These results indicate that the higher the level of a person's ability to do work, the higher his work productivity. Nuryanto et al. (2017). Therefore, the proposed hypothesis is:

H3: Competence has an effect on work productivity employee

### 2.4. THE EFFECT OF TRAINING ON WORK PRODUCTIVITY THROUGH COMPETENCE AS AN INTERVENING VARIABLE

Several studies, such as those carried out by Slamet Raharjo, Patricia Dhiana Paramita & M. Mukeri Warso (2016), Heri Sapari Kahpi, Aan Khurosaini & Indra Suhendra (2017) and Okky Sandy Pranata et al. (2018) with a population of 49 permanent employees of PT Bank Tabungan Pensiunan Nasional Syariah Malang Sharia Mobile Marketing Division with a sampling technique that is a saturated sample getthe results of the calculation of the Indirect Effect which is worth 0.233 and the total effect (Total Effect) of job training (X) on employee productivity (Y) through employee competence (Z) is 0.726. This means that job training has a positive effect on employee productivity variables through employee competence variables. From some of these research results, therefore the proposed hypothesis is:

H4: Training Affects Work Productivity Through Competence as an Intervening Variable

# 2.5. THE EFFECT OF WORK PRODUCTIVITY ON COMPANY PERFORMANCE

Work productivity is the best comparison between the results obtained (output) with the number of sources of work used (input). Work productivity is said to be high if the results obtained are greater than the source of work used. On the other hand, work productivity is said to be low, if the results obtained are smaller than the sources of work used. Several previous studies have found that employee productivity has an effect on company performance.

As found in research conducted by Mardalela (2014) and Iskandar (2018), both of which found that employee productivity has a significant and positive effect on company performance. This means that if employee productivity increases it will improve company performance. Therefore, the proposed hypothesis is:

#### H5: Employee productivity has an effect on performance employee.

#### **3. MATERIALS AND METHODS**

#### **3.1. DATA SOURCE**

In this study, a total of 149 participants who filled out the questionnaires meant that they had met the requirements for conducting the research.

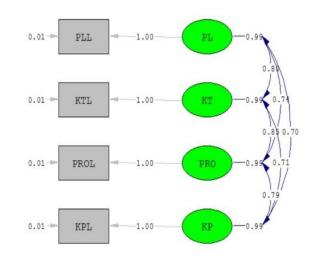
#### **3.2. DATA PROCESSING METHOD**

- Structural Equation Modelling (SEM) is a multivariate analysis technique used to construct, which is usually in the form of a cause-and-effect model Sarwono (2013). Data analysis assisted by Lisrel software
- Jogiyanto (2013) explained that the size of the significance of the hypothesis support can be used to compare the T-table and T-statistic/T-Value values. If the T-Value is higher than the T-table value, it means that the hypothesis is supported or accepted. In this study, the Rule of Tumbs from the support of a research hypothesis is if the t-statistic value is more than 1.64 (two-tiled) or 1.96 (one-tiled).

#### 4. RESULTS

#### 4.1. CONFIRMATORY FACTOR ANALYSIS

Before testing the structural model, a confirmatory factor analysis (CFA) test is conducted to confirm whether the observed variables are indeed a measure or reflection of a latent variable. The following are the results of the CFA test of the research variables that have been simplified:



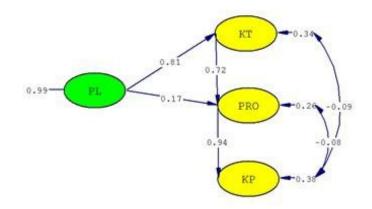
Chi-Square=0.00, df=0, P-value=1.00000, RMSEA=0.000

Figure 1 Confirmatory Factor Analysis Test Diagram

From Figure 1 above, it can be seen that the value of *standardized loading factor search* variable gets a value above 0.5 that is getting a value of 1.00, so all variables are valid. The overall fit of the model is also very good because the Chi-Square & df value has got a value of 0.00, the P-value is above 0.05, which is 1,000 and the RMSEA value is 0.000 below the required value (0.05). Then the data can be continued for testing the structural model.

## 4.2. STRUCTURAL MODEL TESTING

The basis used in testing the structural model is the value contained in the Estimate & T-Value structural model. For Estimate & T-Value values, all hypotheses (H1, H2, H3 and H4) can be seen in the figure below:



Chi-Square=0.00, df=0, P-value=1.00000, RMSEA=0.000

Figure 2 Structural Model (Estimate)

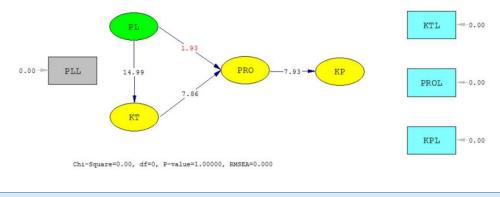


Figure 3 Structural Model (T-Value)

For the structural model equations of hypotheses H1, H2, H3 and H4, the output generated from Lisrel is as follows:

#### **Structural Equations**

KT = 0.81\*PL, Error var. =0.34, R2 = 0.66 (0.054)(0.066)14.99 5.13 PRO = 0.72\*KT + 0.17\*PL, Error var. = 0.26, R<sup>2</sup>= 0.74 (0.092)(0.086)(0.10)7.86 1.93 2.48 = 0.94\*PRO, Error var. = 0.38, R<sup>2</sup>= 0.62 KP (0.12) (0.10)7.93 3.72

The following is the interpretation of the results from Figure 2, Figure 3, and each structural equation:

• For structural equation: KT = 0.81\*PL, R2 = 0.66

It is known that the path coefficient of the training latent variable is 0.81. A positive path coefficient value indicates that the training latent variable has a positive effect on competence. To find out whether the effect is significant or not, a statistical test was conducted. From the structural equation, it is known that the value of, it can be concluded that the effect that occurs between the training latent variable on the competency latent variable is statistically significant at a significance level of 5%. $tt_{hitung} = 14,99 > t_{tabel} = 1,96$ 

It is known that the coefficient of determination based on Lisrel's output is 0.66. This value can be interpreted 66% of the total variation (total variation) of the latent variable of competence can be explained by the structural equation. In other words, the training latent variable is able to explain (up and down) the competence latent variable by 66%, the remaining 34% is explained by other variables.( $R^2$ )

• For structural equation: PRO = 0.72\*KT + 0.17\*PL, R2 = 0.74

It is known that the path coefficient of the training latent variable is 0.17. A positive path coefficient value indicates that the training latent variable has a positive effect on work productivity. To find out whether the effect is significant or not, a statistical test was conducted. From the structural equation, it is known that the value of, it is concluded that the effect that occurs between the training latent variable on the productivity latent variable is not statistically significant at the 5% significance level. $tt_{hitung} = 1,93 < t_{tabel} = 1,96$ 

It is known that the path coefficient of the competence latent variable is 0.72. A positive path coefficient value indicates that the latent variable of competence has a positive effect on work productivity. To find out whether the effect is significant or not, a statistical test was conducted. From the structural equation, it is known that the value of, it is concluded that the effect that occurs between the competence

latent variable on the work productivity latent variable is statistically significant at a significance level of  $5\%.tt_{hitung} = 7,86 > t_{tabel} = 1,96$ 

It is known that the coefficient of determination based on Lisrel's output is 0.74. This value can be interpreted 74% of the total variation (total variation) of the latent variable of competence can be explained by the structural equation. In other words, the latent variables of training and competence are simultaneously able to explain (up and down) the latent variable of work productivity by 74%, the remaining 26% is explained by other variables.( $R^2$ )

• For structural equation: KP= 0.94\*PRO, R<sup>2</sup>= 0.62

It is known that the path coefficient of the latent variable of work productivity is 0.94. A positive path coefficient value indicates that the latent variable of work productivity has a positive effect on company performance. To find out whether the effect is significant or not, a statistical test was conducted. From the structural equation, it is known that the value of, it is concluded that the effect that occurs between the latent variable of work productivity on the latent variable of company performance is statistically significant at a significance level of 5%. $tt_{hitung} = 7,93 > t_{tabel} = 1,96$ 

It is known that the coefficient of determination based on Lisrel's output is 0.64. This value can be interpreted 64% of the total variation (total variation) of the latent variable of company performance can be explained by the structural equation. In other words, the latent variable of work productivity is able to explain (up and down) the latent variable of company performance by 64%, the remaining 36% is explained by other variables.( $R^2$ )

### 4.3. DIRECT EFFECT, INDIRECT EFFECT AND TOTAL EFFECT

The analysis for direct and indirect effects is obtained from the results of the lisrel output of the effect of the training variable on work productivity through work competence as an intervening variable:

Table 1 Total Effects of KSI on ETA	
	PL
КТ	0.81
	(0.05)
	14.99
PRO	0.75
	(0.06)
	12.16

Table 2 Indirect Effects of KSI on ETA	
	PL
КТ	
PRO	0.58
	-0.09
	6.85

From the above calculation, it is known that the estimate value for the total effect of the training latent variable (PL) on work competence (KT) is 0.81 with a T-Value of 14.99 and from the training latent variable (PL) on work productivity (PRO) is 0.75 with T -Value 12.16. As for the indirect effect (*indirect effects*) of the latent variable training (PL) on work productivity (PRO) is 0.58 with a T-Value of 6.85.

#### 5. DISCUSSIONS

In the following, the findings of the data analysis related to the proposed hypothesis will be discussed.

#### **5.1. EFFECT OF TRAINING ON EMPLOYEE COMPETENCE**

From the research results, it is known that training has a positive and significant effect on employee competence, meaning that there are more training activities received by employees will increase the competence of BNI employees and vice versa if there are fewer or no training activities for employees, the competence of employees will not be better. According to Simamora (2014) one of the objectives of training is to improve performance, update the capabilities of employees in line with technological advances and help solve operational problems. Companies can also hope to reduce supervision over their employees after training, because after training employees are expected to be able to carry out their duties more skilfully and responsibly, because employees who receive special training are less likely to make mistakes. (Manullang, 2013).

This finding is in accordance with research conducted by Okky Sandy Pranata et al. (2018), Rifki et al. (2015) and Nabilah Rizkia Mokhtar (2017) with research results showing that the training variable has a significant effect on the competency variable with the most dominant effect on Workforce Competency is the Training Method.

From the results of descriptive statistics from respondents' assessment of the variable training for all statements getting an average value of very good, all statements on the training variable are in the interval scale agree to strongly agree. For example, the largest statement is the PL1 statement where the form of the statement is "The training I attended at BNI Corporate University has corrected deficiencies and increased knowledge about the work I am currently doing". With an interval scale of strongly agree, the respondents considered they strongly agree that the training at BNI Corporate University has corrected deficiencies and increased knowledge about the work they are doing. And from the competency variable, it is known that the largest statement is the KT1 statement where the form of the statement is "After attending training at BNI Corporate University I know and understand the concepts and procedures in the field of work that I am currently living". With an interval scale of strongly agree, the respondents considered they strongly agree that the training at BNI Corporate University has improved competence in terms of knowing and understanding concepts and procedures in the field of work that they are currently living.

## **5.2. EFFECT OF TRAINING ON WORK PRODUCTIVITY**

From the results of the study, it is known that training has a positive effect on work productivity but is not significant. This means that the better the training activities, the better the work productivity of employees and vice versa.

according to Sinungan (2014), employee work productivity can increase, one of which is effected by human resource factors. In more detail, Sinungan said that human resources must have quality, level of expertise, education, abilities and attitudes or it can be said that they must have competence first.

The results of this study are in accordance with research conducted by Neelam Tahir et al. (2014) that training affects employee productivity United Bank Limited Peshawar City, in Pakistan. However, this is not the same as the research from Indrivani and Farlianto (2016) which found that the training variable had a positive and significant effect on employee work productivity.

The highest average value from the descriptive statistics of the work productivity variable is known that the indicators of cooperation in the work productivity variable get a value above 4.2 with class intervals strongly agreeing, it can be interpreted that training activities have an effect on increasing cooperation between fellow co-workers and superiors at work.

### **5.3. THE EFFECT OF COMPETENCE ON WORK PRODUCTIVITY**

From the results of the study, it is known that competence has a positive and significant effect on employee work productivity, meaning that the higher the level of competence of the employee, the better the work productivity of the employee.

The results of descriptive statistics for the work productivity variable show that 4 statements get a value above 4.20 with class intervals, namely strongly agree. For example, one of the highest mean values, namely PRO3 in the form of a statement, is "After attending training at BNI Corporate University, my knowledge and skills in the field of work that I live have improved". In this case, it can be interpreted that the respondents strongly agree that the training activities attended at BNI Corporate University have increased employee competence, which in turn is able to affect the work productivity of BNI employees.

This finding is not in accordance with research conducted by Dr. Ir. H. Samsul Bahri. MM (2016) in his research found that the work competence of employees proved to have a positive and significant effect on the productivity of the Public Works Department of Highways of South Sumatra region with the most dominant indicators influencing the indicators of knowledge, skills, and abilities.

## 5.4. THE EFFECT OF TRAINING ON WORK PRODUCTIVITY THROUGH CPMPETENCE AS AN INTERVENIG VARIABLE

Based on the results of testing and data discussion that has been carried out, it is known that the estimated value of the indirect effect (*indirect effects*) of the latent variable training (PL) on work productivity (PRO) is 0.58 positive path coefficient value indicating that the training latent variable has a positive effect on work productivity through the competence latent variable and it is known that the T-Value value is 6.85 > from the T-table, it can be interpreted that the effect What

happens is that the training latent variable has a positive effect on work productivity through the statistically significant competence latent variable at a significance level of 5%.

The nature of mediation is full mediation because it is known that the effect of training on work productivity is not significant (Hartono and Abdillah, 2009). A This means that the training variable is not able to significantly effect the work productivity variable without going through the work competence intervening variable.

The results of this study are in accordance with research from Slamet Raharjo, Patricia Dhiana Paramita & M. Mukeri Warso (2016), Heri Sapari Kahpi, Aan Khurosaini & Indra Suhendra (2017) and Okky Sandy Pranata et al. (2018) with a population of 49 permanent employees of PT Bank Tabungan Pensiunan Nasional Syariah Malang Sharia Mobile Marketing Division with a sampling technique that is a saturated sample getthe results of the calculation of the Indirect Effect which is worth 0.233 and the total effect (Total Effect) of job training (X) on employee productivity (Y) through employee competence (Z) is 0.726. This means that job training has a positive effect on employee productivity variables through employee competence variables.

## 5.5. THE EFFECT OF WORK PRODUCTIVITY ON COMPANY PERFORMANCE

From the results of the study, it is known that employee work productivity has a positive and significant effect on company performance, meaning that the higher the level of employee productivity, the better the company's performance.

According to Munawir (2015) that the factors that affect the company's performance include customer satisfaction, the ability to retain customers and the ability to retain customers. In order for the company to be able to do these 3 things, one of the things that needs to be improved is the work productivity of the employees in the company.

The results of descriptive statistics for the company's performance variable are known that for the customer perspective indicator 2 of 3 statements getting a value above 4.20 means getting a very agree response. For example, for the largest statement, namely the KP4 statement where the form of the statement is "BNI Corporate University is able to increase learning exposure / learning participation ration". With an interval scale of strongly agree, the respondents considered strongly agree that the training at BNI Corporate University has increased learning exposure / learning participation ration.

This finding is in accordance with research conducted by Mardalela (2014) and Iskandar (2018) who both obtained the results that employee work productivity was significant and had a positive effect on company performance.

### **6. CONCLUSIONS**

This study aims to determine the effect of training on work productivity through the intervening variable of employee competence and the effect of work productivity on company performance. With 5 problem formulations, here are the conclusions for the 5 problem formulations based on the results of data management:

- 1) Training has positive effect to competency of trainee employees at BNI Corporate University.
- 2) Training has positive effect on work productivity of trainee employees at BNI Corporate University but not significant.
- 3) Employee competence has positive effect on work productivity of trainee employees at BNI Corporate University.
- 4) Employee competence mediates the effect of training on work productivity of trainee employees at BNI Corporate University.
- 5) Work productivity has positive effect to company performance.

# 7. RECOMMENDATIONS

## 7.1. PRACTICAL RECOMMENDATIONS

The researcher obtained several important findings in this study, so that the researcher provided input to the management of BNI Corporate University in the following matters:

- 1) Based on the results of research that training has an effect on employee work productivity through employee competence, then BNI Corporate University really has to maintain the quality of the training activities carried out. The quality of training can be maintained by paying attention to several factors that play a role in the training process such as identification of needs, instructors (trainers), participants, materials (materials), methods, training objectives and a supportive environment. Rivai (2014)
- 2) In the future, so that training activities in BNI Corporate University can be known to have an effect on employee competence and employee work productivity, so research activities like this can be carried out once a year for training participant sin BNI Corporate University in that year.
- 3) Implementation and testing of the impact of the training provided on the competence, productivity and performance of the company is very necessary and it is the obligation of BNI Corporate University to do it periodically and if necessary, directly measured in the form of performance figures generated by each participant.

### 7.2. THEORETICAL RECOMMENDATIONS

There are several things that can be given as suggestions for conducting research on the concept of training, employee competence, employee work productivity and company performance in the future according to the practical suggestions above, namely:

- 1) Further research can add to research variables such as whether training has an effect on motivation and job satisfaction.
- 2) Further research can increase the number of research samples in order to be able to generalize the research results to be more adequate.
- 3) Subsequent research can examine whether there is an effect of training methods (classical or online) on the competence, productivity, and performance of the company.

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