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# The Impact Of Education, Training, And Work Experience Programs On The Work Productivity Of Nias Police Laka Lantas Unit Personnel

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### ABSTRACT

This study uses a quantitative approach to examine the relationship between the variables of education, training, and work experience on work productivity in the Nias Resort Police. The research sample consisted of 35 police personnel who were randomly selected from a total population of 349 personnel. Data was collected through questionnaires and analyzed using descriptive and inferential statistical techniques using SPSS Version 29 Software. The results of the analysis showed that there was a strong relationship between educational variables and work productivity, which was supported by a statistically significant regression coefficient value. The coefficient of determination (R Square) of 0.504 shows that about 50.4% of the variability in work productivity can be explained by the independent variables in this model. The F-statistical test showed that the regression model was significant overall at a 95% confidence level, with the rejection of the null hypothesis stating that there was no influence of independent variables on dependent variables. In addition, individual t-tests showed that only the educational variables significantly affected work productivity, while the training and work experience variables did not make a significant contribution. This research provides an in-depth understanding of the factors that affect work productivity in the police environment, with implications for the development of more effective managerial policies and practices in improving personnel performance.

#### INTRODUCTION

Work productivity is the ability of individuals or groups to produce goods and services efficiently, by the inputs used. According to Busro (Maliah, 2020, p. 109), High productivity reflects success, while decreased productivity indicates failure in achieving the set standards.

Productivity involves a view of life and a mental attitude that constantly strives to improve the quality of life and is a comparison between the results achieved (output) and the resources used (inputs) in a given unit of time. Work productivity is an important indicator in assessing the effectiveness and operational efficiency of an organization. (Tertia et al., 2023)

One way to increase work productivity is through education and training. Education, especially formal ones, in an institution aims to develop human resources to the needs of the organization. Personnel with a higher level of education tend to have better productivity, especially if supported by sufficient work experience. Training, as part of the educational process, aims to improve specific abilities or skills, as well as equip employees with the knowledge, expertise, and behaviors necessary for optimal performance. Education and training are considered an important investment for agencies in improving the quality of human resources that contribute to the achievement of organizational goals. Education has a crucial role, especially in community activities, because the quality of good and bad human beings as resources can be determined by the level of education. Hasbullah in Pitriyani and Halim (2020) education closely understands its understanding as a human effort in training its characteristics adjusted to the prevailing cultural and societal values so that better characters are born than before.

Work experience is also an important factor that affects the productivity and performance of individuals in an organization. Professional experience includes the length of employment, the type of work performed, and the skills and knowledge acquired during the career. Work experience provides better adaptability and task completion, as well as affects effectiveness and efficiency at work. Research shows that individuals with longer work experience tend to have better skills and deeper industry knowledge. However, challenges such as resistance to change or a tendency to stick to routines also need to be addressed. Theoretically, work experience can be divided into several main aspects, namely work duration, variety of tasks, and career achievements.

The duration of work, or the length of time a person works in a field, is often used as a basic measure of experience. The longer a person has worked in a position or industry, the more likely it is that the individual has a deep understanding of the job. Task variations reflect how broad the scope of tasks an individual has been doing, which can enrich their skills and insights. Meanwhile, career achievement refers to various achievements and responsibilities that have been achieved throughout a career, such as promotions, major projects that have been completed, or awards received. Therefore, understanding the impact of work experience is important for the development of organizational performance improvement strategies. Work Experience According to Sutrisno in Kristian & Sunarsi (2020) work experience is one of the basis of reference for a workforce to be able to prepare themselves in the right conditions, be responsible in facing risks and challenges, and be able to connect with various colleagues well to maintain productivity and give birth to a skilled workforce in their field.(Tertia et al., 2023; Wibowo & Chasif Ascha, 2023)(Purnomo, Perizade, & Syapril, 2023)(Lifya Fillahi Attaqi, 2022)

Work experience indicators can include several specific components. First, the number of years of work in a particular profession or industry gives an idea of the duration of an individual's experience. Second, the variety of tasks and roles that have been carried out, shows how extensive the experience and skills have been developed. Third, professional achievements such as awards, promotions, or significant contributions to major projects, reflect the quality and impact of the work experience. Fourth, the training and certifications that have been obtained, show the individual's commitment to continue learning and developing themselves. The measurement of these indicators provides a comprehensive picture of the quality and quantity of a person's work experience, as well as their potential to make a positive contribution to the work environment. (Djawa, Keraf, & Damayanti, 2022)

Training is a more specific process and focuses on improving practical skills and adjusting employees' attitudes towards the specific tasks they face in their daily work. According to

Nitisemito (2019:62), training is an activity that aims to improve and develop employee attitudes, behaviors, skills, and knowledge to the company's needs. Training is designed to provide employees with the necessary skills so that they can carry out specific tasks more efficiently and effectively. Simamora (2017:44) also added that training is a learning process that involves the acquisition of skills, concepts, regulations, or attitudes that aim to improve workforce performance. Training is often conducted in a real or simulated work environment, so employees can practice the skills they learn firsthand. Commonly used training methods include on-the-job training, simulations, demonstrations, and apprenticeships. Gomes (2020:301) states that training is any effort to improve the performance of workers in certain jobs that they are responsible for. With the right training, employees can develop the technical skills, interpersonal skills, and managerial skills necessary to improve their productivity and quality of work. In addition, training also helps employees correct shortcomings in their past performance and prepares them to face future job challenges.

Education in the context of organizations and companies aims to improve employees' knowledge and theoretical understanding, including mastery of theory and decision-making skills related to their duties and responsibilities. According to Heindjrachman (2022:228), education is an activity that increases a person's general knowledge and includes mastery of theory and problem-solving skills in achieving organizational goals. Education is oriented towards mastery of general knowledge and theory, which helps employees in better decision-making. It is essential to equip employees with the extensive knowledge and analytical abilities necessary to understand and respond to the ever-changing dynamics of the organization and the market. Education also focuses on developing the specific skills required for specific tasks within the organization, so that employees can work more efficiently and effectively. "Education is an activity that increases a person's general knowledge which is the activity concerned in achieving a goal: "Several indicators on educational variables". Among them: Education Level, Analogy A affair, Skills. "Education is an important part of work productivity because it makes it easier for workers to learn new things in the world of work".

In addition, continuous education becomes important because the external and internal environment of the organization is always changing, leading to a gap between the employee's abilities and the demands of the job. Schuler (2019:86) stated that the development of human resources in an organization involves various factors such as education, training, career planning and management, improving work quality and productivity, and improving occupational health and safety. Educational programs must be designed to narrow the gap by improving the knowledge and abilities of employees so that they can keep up with the development of science and technology. Thus, education is an important investment for organizations to improve the productivity and quality of employees' work, as well as prepare them to face the challenges of globalization and free markets. (Wibowo and Chasif Ascha, 2023)

In the context of the Laka Lantas Unit at the Nias Police, personnel productivity is the key to success in handling traffic accidents and maintaining traffic order. Based on initial observations, several obstacles were found that affect the work productivity of personnel, such as lack of awareness and willingness to participate in education and training programs, as well as lack of experience in dealing with traffic accident problems. Therefore, increasing awareness and participation of personnel in education and training, as well as the development of work experience, is very necessary to increase productivity and professionalism in carrying out duties in the jurisdiction of the Nias Police. The handling of various traffic cases on the highway reflects the work productivity of the Nias Police Laka Lantas personally, of course, this must be accompanied by special education and legal regulations that are by the problems found. Sometimes the personnel who handle cases in the field do not have experience in the field of lala, and it may be caused by work mutations from different fields or units before. For this reason, training is also needed to master traffic signs and provide sanctions for those who violate traffic rules on the highway. The results of this study will have implications for the West

Sumatra Police or other government organizations in improving performance through leadership, training, and appropriate career development. In addition, this study provides knowledge about the influence of leadership, training, and career development on performance. (Police Executive Research Forum, 2022)(Ramavhunga, 2018)(Mbuti, 2023)(Amar & Evanita , 2021) (Purnomo, Perizade, & Syapril, 2023).

Traffic collisions are a leading cause of death and nonfatal injuries for people worldwide. A well-documented contributor to traffic collisions is speed. Controlling speed has thus become a priority for government, police, and community groups across the world. (Simpson et al., 2020)

#### LITERATURE REVIEW

#### Work Productivity

Work productivity refers to the general attitude of an individual towards work. A person with a high level of work productivity shows a positive attitude towards his work, and on the contrary, if the employee is dissatisfied with his job, the employee will show a negative attitude towards his work. (asmawati, 2021).

#### **Work Experience**

Work experience according to sutrisno (lifya fillahi attaqi, 2022) work experience is one of the basis of reference for a workforce to be able to prepare themselves in the right conditions, be responsible in facing risks and challenges, and be able to connect with various colleagues well to maintain productivity and give birth to a skilled workforce in their field.

#### Training

According to muchamad zaenuri (kiki baehaki and ahmad faisal, students and management lecturers, 2020), training is a short-term educational process that uses systematic and organized procedures so that non-managerial workers learn technical knowledge and skills for certain purposes.

#### **Educational Programs**

Education has a crucial role, especially in community activities, because the quality of good and bad human beings as resources can be determined by the level of education. According to hasbullah in pitriyani and halim (2020), education is closely understood as a human effort to train its characteristics to adjust to the prevailing cultural and societal values so that better characters are born than before.

#### **METHODS**

The research method is a scientific approach used to collect and analyze data to answer research questions and test hypotheses that have been formulated. In the context of this study, the method used is quantitative research. According to Soekanto (2020), research is a scientific activity based on analysis and construction that must be carried out systematically, methodologically, and consistently to reveal the truth. Quantitative research, in particular, involves a systematic investigation of a phenomenon through the collection of measurable data using statistical, mathematical, and computational sciences. Its purpose is to develop theories or hypotheses related to certain natural or social phenomena. Therefore, this study uses a quantitative approach to examine the relationship between the variables that have been determined. In this study, there are two types of variables studied, namely independent variables and bound variables. Independent variables are variables are often referred to as stimuli, predictors, or antecedents, and in the context of this study, the independent variables studied

include education, training, and work experience. This independent variable is observed and measured to determine its contribution to other variables. On the other hand, a dependent variable is a variable that is influenced by an independent variable and is the result or output of the research. The bound variable in this study is work productivity. This variable is observed to see how the variation is affected by the independent variable that has been mentioned.

The study population includes all Nias Resort Police personnel totaling 349 people. Given the large population, the researcher took a sample of 10% of the total population, which was 35 personnel. Sampling was carried out based on the method proposed by Arikunto (2017), which stated that if the population is more than 100 people, 10% to 25% can be taken as a sample. The research instruments used include questionnaires prepared with relevant questions or statements to measure the variables studied. The collected data was then analyzed using descriptive and inferential statistical techniques, including data verification, questionnaire processing, validity and reliability tests, correlation analysis, and hypothesis testing to ensure the validity of the research findings. The location of the research was carried out at the Nias Resort Police, North Sumatra, with a predetermined schedule according to the needs of the research.



**Figure 1 Conceptual Framework** 

## RESULTS

In the validity test of the responses of 35 respondents to the 30 questionnaire items that were filled, the results can be seen in Table 1 below.

| Variable       | Itoms | r Calculato | r Tablo | Significant | ~    | Information |
|----------------|-------|-------------|---------|-------------|------|-------------|
| variable       | items |             | Гаріе   | Significant | u    | mormation   |
|                | X1.1  | 0,611       | 0,3338  | 0,000       | 0,05 | Valid       |
|                | X1.2  | 0,774       | 0,3338  | 0,000       | 0,05 | Valid       |
|                | X1.3  | 0,631       | 0,3338  | 0,000       | 0,05 | Valid       |
| Education (x1) | X1.4  | 0,751       | 0,3338  | 0,000       | 0,05 | Valid       |
|                | X1.5  | 0,663       | 0,3338  | 0,000       | 0,05 | Valid       |
|                | X1.6  | 0,842       | 0,3338  | 0,000       | 0,05 | Valid       |
|                | X1.7  | 0,842       | 0,3338  | 0,000       | 0,05 | Valid       |
|                | X2.1  | 0,578       | 0,3338  | 0,000       | 0,05 | Valid       |
|                | X2.2  | 0,609       | 0,3338  | 0,000       | 0,05 | Valid       |
| Training (V2)  | X2.3  | 0,755       | 0,3338  | 0,000       | 0,05 | Valid       |
| fraining (AZ)  | X2.4  | 0,590       | 0,3338  | 0,000       | 0,05 | Valid       |
|                | X2.5  | 0,713       | 0,3338  | 0,000       | 0,05 | Valid       |
|                | X2.6  | 0,735       | 0,3338  | 0,000       | 0,05 | Valid       |
|                | X3.1  | 0,771       | 0,3338  | 0,000       | 0,05 | Valid       |
| Work           | X3.2  | 0,530       | 0,3338  | 0,000       | 0,05 | Valid       |
| Experience     | X3.3  | 0,663       | 0,3338  | 0,000       | 0,05 | Valid       |
| (X3)           | X3.4  | 0,787       | 0,3338  | 0,000       | 0,05 | Valid       |
|                | X3.5  | 0,599       | 0,3338  | 0,000       | 0,05 | Valid       |

## Table 1 Validity Test Results

Source: Processed by researchers, 2024

|                                       | Y1  | 0,547 | 0,3338 | 0,000 | 0,05 | Valid |
|---------------------------------------|-----|-------|--------|-------|------|-------|
|                                       | Y2  | 0,614 | 0,3338 | 0,000 | 0,05 | Valid |
|                                       | Y3  | 0,540 | 0,3338 | 0,000 | 0,05 | Valid |
|                                       | Y4  | 0,524 | 0,3338 | 0,000 | 0,05 | Valid |
| Mork                                  | Y5  | 0,572 | 0,3338 | 0,000 | 0,05 | Valid |
| WOIK<br>Droductivity                  | Y6  | 0,759 | 0,3338 | 0,000 | 0,05 | Valid |
| A A A A A A A A A A A A A A A A A A A | Y7  | 0,783 | 0,3338 | 0,000 | 0,05 | Valid |
| (1)                                   | Y8  | 0,661 | 0,3338 | 0,000 | 0,05 | Valid |
|                                       | Y9  | 0,644 | 0,3338 | 0,000 | 0,05 | Valid |
|                                       | Y10 | 0,750 | 0,3338 | 0,000 | 0,05 | Valid |
|                                       | Y11 | 0,614 | 0,3338 | 0,000 | 0,05 | Valid |
|                                       | Y12 | 0,621 | 0,3338 | 0,000 | 0,05 | Valid |

Source: Data processed by the author (2024)

The results of the validity test show that all statement items have a calculated r value greater than the table or sig. < 0.05, so it can be concluded that all statement items are valid. In the reliability test of the responses of 35 respondents to 30 questionnaire items filled out based on the *Cronbach Alpha* value > 0.60, the results can be seen in Table 2 below.

#### **Table 2 Reliability Test Results**

| Variable              | Cronbach's Alpha | Standard | Information |
|-----------------------|------------------|----------|-------------|
| Education (X1)        | 0,855            | 0,60     | Reliable    |
| Training (X2)         | 0,729            | 0,60     | Reliable    |
| Work Experience (X3)  | 0,689            | 0,60     | Reliable    |
| Work Productivity (Y) | 0,860            | 0,60     | Reliable    |

Source: Data processed by the author (2024)

The results of the reality test showed that all variables had a *Cronbach Alpha* value of > 0.60, so it can be concluded that all variables are reliable.

#### Table 3. Normality Test Results

| One-Sample Kolmogorov-Smirnov Test       |                                 |                  |                         |  |  |  |  |
|--|---------------------------------|------------------|-------------------------|--|--|--|--|
|  |                                 |                  | Unstandardized Residual |  |  |  |  |
| N  |                                 |                  | 35                      |  |  |  |  |
| Normal Parameters <sup>a,b</sup>         | Mean                            |                  | .0000000                |  |  |  |  |
|  | Std. Deviation                  |                  | 2.78092951              |  |  |  |  |
| Most Extreme Differences                 | st Extreme Differences Absolute |                  | .087                    |  |  |  |  |
|  | Positive                        |                  | .074                    |  |  |  |  |
|  | 087                             |                  |                         |  |  |  |  |
| Test Statistic                           |                                 |                  | .087                    |  |  |  |  |
| Asymp. Sig. (2-tailed) <sup>c</sup>      |                                 |                  | .200d                   |  |  |  |  |
| Monte Carlo Sig. (2-tailed) <sup>e</sup> | Say.                            |                  | .717                    |  |  |  |  |
|  | 99% Confidence Interval         | Lower Bound      | .706                    |  |  |  |  |
|  |                                 | Upper Bound      | .729                    |  |  |  |  |
| a. Test distribution is Norm             | al.                             |                  |                         |  |  |  |  |
| b. Calculated from data.                 |                                 |                  |                         |  |  |  |  |
| c. Lilliefors Significance Cor           | rection.                        |                  |                         |  |  |  |  |
| d. This is a lower bound of              | the true significance.          |                  |                         |  |  |  |  |
| e. Lilliefors' method based              | on 10000 Monte Carlo sar        | nples with start | ting seed 2000000.      |  |  |  |  |

Source: Data processed by the author (2024)

The results of the Kolgomorov-Smirnov *normality test* showed that the significant value was 0.729 > 0.05, then the data was normally distributed.

| Table 4. Matticonnicality rest results |
|--|
|--|

|       | Coefficients                            |                |           |  |  |  |
|-------|---|----------------|-----------|--|--|--|
|       |   | Collinearity S | tatistics |  |  |  |
| Mod   | el                                      | Tolerance      | BRIGHT    |  |  |  |
| 1     | X1_Education                            | .941           | 1.062     |  |  |  |
|       | X2_Training                             | .674           | 1.483     |  |  |  |
|       | X3_Work Experience                      | .700           | 1.428     |  |  |  |
| a. De | ependent Variable: Y_ Work Productivity |                |           |  |  |  |

Source: Data processed by the author (2024)

The results of the multicollinearity test show that all variables have a tolerance value of > 0.10 or a VIF value of <10, so it can be concluded that there are no symptoms of multicollinearity or pass the multicollinearity test.

The heteroscedasticity test is a method to detect the presence of heteroscedasticity in a regression model. Heteroscedasticity occurs when the variance of error or residual is not constant throughout the observation. This can lead to inefficient parameter estimation and statistical inference to be invalid. The results can be seen in the test in Table 3 below.

|       | Coefficients          |                             |            |                           |       |      |  |  |  |
|-------|-----------------------|-----------------------------|------------|---------------------------|-------|------|--|--|--|
|       |                       | Unstandardized Coefficients |            | Standardized Coefficients |       |      |  |  |  |
| Model |                       | В                           | Std. Error | Beta                      | t     | Say. |  |  |  |
| 1     | (Constant)            | 4.369                       | 4.112      |                           | 1.063 | .296 |  |  |  |
|       | X1_Education          | 041                         | .129       | 058                       | 315   | .755 |  |  |  |
|       | X2_Training           | 048                         | .178       | 059                       | 269   | .790 |  |  |  |
|       | X3_Work Experience    | 014                         | .168       | 018                       | 084   | .933 |  |  |  |
| a.    | Dependent Variable: A | BS_RES                      |            |                           |       |      |  |  |  |

#### **Table 5 Heteroscedasticity Test Results**

Source: Data processed by the author (2024)

The results of the heteroscedasticity test that all variables show that they have a value of sig>0.05, it can be concluded that there are no symptoms of heteroscedasticity or the test passes the heteroscedasticity test.

Equation Multiple linear regression is a mathematical model that describes the relationship between one dependent variable and two or more independent variables. This model extends the concept of simple linear regression by adding more predictors. The general equations of multiple linear regression are:

 $y=\beta 0+\beta 1x1+\beta 2x2+\dots+\beta kxk+\epsilon y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \cdots + \beta_k x_k + \end{tabular}$ \epsilony= $\beta 0+\beta 1x1+\beta 2x2+\dots+\beta kxk+\epsilon$ Where:

- 1. Y is a dependent variable.
- 2. x1,x2,...,xkx\_1, x\_2, \ldots, x\_kx1,x2,...,xk are independent variables.
- 3. β0\beta\_0 β0 is the intercept (constant), which is the average value of Y when all xix\_ixi is equal to zero.
- 4. β1,β2,...,βk\beta\_1, \beta\_2, \ldots, \beta\_k β1,β2,...,βk is a regression coefficient that measures the mean change you for each unit of change in xix\_ixi, by controlling for other variables.
- 5. ε\epsilonε is a term error (residual) that reflects a YYY variation that cannot be explained by an independent variable.

The results of the multiple linear regression equation test can be seen in Table 6 below.

|       | Coefficients                               |                             |            |                           |       |      |  |  |  |
|-------|--|-----------------------------|------------|---------------------------|-------|------|--|--|--|
|       |  | Unstandardized Coefficients |            | Standardized Coefficients |       |      |  |  |  |
| Model |  | В                           | Std. Error | Beta                      | t     | Say. |  |  |  |
| 1     | (Constant)                                 | 9.752                       | 6.481      |                           | 1.505 | .143 |  |  |  |
|       | X1_Education                               | 1.024                       | .203       | .657                      | 5.041 | .000 |  |  |  |
|       | X2_Training                                | 011                         | .281       | 006                       | 039   | .969 |  |  |  |
|       | X3_Work Experience                         | .341                        | .265       | .195                      | 1.289 | .207 |  |  |  |
| a.    | a. Dependent Variable: Y_Work Productivity |                             |            |                           |       |      |  |  |  |

## Table 6 Multiple Linear Regression Equations

Source: Data processed by the author (2024)

## Y = 9,752 + 1.024 X1+ (- 0,011) X2 + 0,341 X3

Explanation:

- a. The value of the constant coefficient of 9.752 with a positive value can be interpreted that with the variables Education (X1), Training (X2), and Work Experience (X3), the Work Productivity variable (Y) will increase by 97.52%. When the independent variables Education (X1), Training (X2), and Work Experience (X3) are equal to zero, the mean value of the dependent variable (Work Productivity) is estimated to be 9,752. However, this value is not statistically significant (Sig. = 0.143 > 0.05), meaning it does not differ significantly from zero.
- b. The value of the beta coefficient of the Education variable (X1), is 1,034, if other variables are constant and the Education variable (X1) will increase by 1%, then the Work Productivity variable (Y) will increase by 10.34%. Likewise, if the Education variable (X1) will decrease by 1%, then the Work Productivity variable (Y) will decrease by 10.34%. A coefficient of X1 of 1,024 means that every increase in one unit in the Education variable will increase Work Productivity by 1,024 units, assuming the other variables are constant. This coefficient is very statistically significant (Sig. = 0.000 < 0.05), which shows that Education has a strong and significant influence on Work Productivity. The Standardized Coefficient (Beta) of 0.657 indicates that Education is a strong predictor in this model.</p>
- c. The value of the beta coefficient of the Training variable (X2), is -0.011 if the other variables are constant and the Training variable (X2) will increase by 1%, then the Work Productivity variable (Y) will increase by 1.1%. Likewise, if the Training variable (X2) will decrease by 1%, then the Work Productivity variable (Y) will decrease by 1.1%. An X2 coefficient of -0.011 means that every increase of one unit in the Training variable will reduce Work Productivity by 0.011 units, assuming the other variables are constant. However, this value is not statistically

significant (Sig. = 0.969 > 0.05), which means that Training has no significant effect on Work Productivity in this model. A Standardized Coefficient (Beta) of -0.006 indicates that Training is a very weak predictor in this model.

d. The value of the beta coefficient of the Work Experience variable (X3) is 0.341 if the other variables are constant and the Work Experience variable (X3) will increase by 1%, then the Work Productivity variable (Y) will increase by 34.1%. Likewise, if the Work Experience variable (X3) decreases by 1%, then the Work Productivity variable (Y) will decrease by 34.1%. A coefficient of X3 of 0.341 means that every increase of one unit in the Work Experience variable will increase Work Productivity by 0.341 units, assuming the other variables are constant. However, this value is not statistically significant (Sig. = 0.207 > 0.05), which means that Work Experience has no significant influence on Work Productivity in this model. A Standardized Coefficient (Beta) of 0.195 indicates that Work Experience is a weak predictor in this model.

# Hypothesis Test Results

The results of the determination coefficient test (R2) are used to assess how well the regression model explains the variability in the dependent data (predicted variables). In general, (R2) gives the proportion of total variability in the dependent variables that can be explained by the independent variables in the model. It can be seen in Table 7 below.

|             | Model Summary  |          |                   |                            |  |  |  |  |
|-------------|--|----------|-------------------|----------------------------|--|--|--|--|
| Model       | R  | R Square | Adjusted R Square | Std. Error of the Estimate |  |  |  |  |
| 1           | .710a  | .504     | .456              | 2.91238                    |  |  |  |  |
| a. Predicto | a. Predictors: (Constant), X3_Work Experience, X1_Education, X2_Training |          |                   |                            |  |  |  |  |

## Table 7 Determination Coefficient Test Results (R2)

Source: Data processed by the author (2024)

The correlation coefficient (R) of 0.504 indicates a strong relationship between independent variables (Education, Training, and Work Experience) and dependent variables (Work Productivity). R values range between -1 and 1, where values close to 1 or -1 indicate a stronger relationship, while values close to 0 indicate a weaker relationship. The determination coefficient (R Square) of 0.504 shows that about 50.4% of the variability in Work Productivity can be explained by the independent variables (Education, Training, and Work Experience) in this model. In other words, the model is pretty good at explaining the variability of the data, although there is still about 49.6% of the variability that is not explained by the model. An Adjusted R Square of 0.456 is an adjusted version of R Square that takes into account the number of independent variables in the model and sample size.

Adjusted R Square is often used to evaluate models with multiple independent variables because it penalizes additional variables that do not make a significant contribution to the model. This value shows that, after adjusting, about 45.6% of the variability in Work Productivity can be explained by the variables in the model. These adjustments help to provide a more realistic picture of the model's performance.

## Test Result F

The results of the F test in the regression analysis are used to determine whether the overall regression model is significant. This test helps to evaluate whether at least one of the independent variables in the model has a significant influence on the dependent variables.

## Table 8. Test Result F

|      | ANOVA                                      |                            |        |                      |        |       |  |  |  |  |
|------|--|----------------------------|--------|----------------------|--------|-------|--|--|--|--|
| Мо   | del  | Sum of Squares             | df     | Mean Square          | F      | Say.  |  |  |  |  |
| 1    | Regression                                 | 267.630                    | 3      | 89.210               | 10.518 | .000b |  |  |  |  |
|      | Residual                                   | 262.941                    | 31     | 8.482                |        |       |  |  |  |  |
|      | Total                                      | 530.571                    | 34     |                      |        |       |  |  |  |  |
| a. [ | a. Dependent Variable: Y_Work Productivity |                            |        |                      |        |       |  |  |  |  |
| b. F | Predictors: (Consta                        | nt), X3_Work Experience, > | (1_Edu | ucation, X2_Training |        |       |  |  |  |  |
|      |  |                            |        |                      |        |       |  |  |  |  |

Source: Data processed by the author (2024)

The residual sum of squares measures the variability of independent variables that cannot be explained by independent variables in the model. The degree of freedom (df) for residual is the total number of observations minus the number of estimated parameters (34 - 3 - 1 = 31). Mean Square (Residual) is the sum of squares (Residual) divided by df Residual, which indicates the average variability not explained by the model per observation. F-statistic is the ratio between Mean Square (Regression) and Mean Square (Residual). In this case, an F value of 10.518 indicates that the variability described by the regression model is much greater than the unexplained variability. This provides strong evidence that at least one of the independent variables significantly contributes to the explanation of variability in dependent variables. A pvalue of .000 (less than 0.05) indicates that the overall regression model is significant at a 95% confidence level. In other words, we can reject the null hypothesis that states that all regression coefficients are equal to zero. This means that at least one of the independent variables (Education, Training, or Work Experience) has a significant influence on the dependent variable (Work Productivity). The F value is calculated as 10,518 > 2,911 and sig. 0,000<sup>b</sup> < 0.05, then Ho is rejected Ha is accepted, meaning that the variable Education (X1), Training (X2), and Work Experience (X3) simultaneously had a positive and significant influence on the Work Productivity variable (Y).

## **T Test Results**

The results of the t-test in the regression analysis were used to evaluate the significance of each regression coefficient of the independent variables in the model. The t-test helps determine whether each independent variable has a significant influence on the dependent variables individually. It can be seen in table 9. below.

|  | Coefficients          |              |            |                           |       |      |  |  |
|--|-----------------------|--------------|------------|---------------------------|-------|------|--|--|
| Unstandardized Coefficients Standardized |                       |              |            | Standardized Coefficients |       |      |  |  |
| N  | odel                  | В            | Std. Error | Beta                      | t     | Say. |  |  |
| 1  | (Constant)            | 9.752        | 6.481      |                           | 1.505 | .143 |  |  |
|  | X1_Education          | 1.024        | .203       | .657                      | 5.041 | .000 |  |  |
|  | X2_Trainning          | 011          | .281       | 006                       | 039   | .969 |  |  |
|  | X3_Work Experience    | .341         | .265       | .195                      | 1.289 | .207 |  |  |
| a.                                       | Dependent Variable: Y | _ Work Produ | ctivity    |                           |       |      |  |  |

#### Table 9 T Test Results

Source: Data processed by researchers (2024)

1. Education (X1) is the only independent variable that has a significant influence on Work Productivity (Y). Any improvement in Education significantly increases Work Productivity. The t-value of the Education variable (X1) is 5,041> the t-value of the table is 2,035, then Ho is rejected Ha is accepted, meaning that the Education variable (X1) has a positive and significant effect on Work Productivity (Y).

- 2. The t-value of the Training variable (X2) is -0.039 < the t-value of the table is 2.035, then Ho is accepted by Ha and rejected, meaning that the Training variable (X2) has no positive and insignificant effect on Work Productivity (Y).
- 3. The t-value of the Work Experience variable (X3) is 0.195 < the t-value of the table is 2.035, then Ho is accepted by Ha and rejected, meaning that the Work Experience variable (X3) has no positive and insignificant effect on Work Productivity (Y).

The provided analysis explores the influence of education, training, and work experience on work productivity. The constant coefficient of 9.752, though positive, is statistically insignificant (Sig. = 0.143 > 0.05). This suggests that while education (X1), training (X2), and work experience (X3) might collectively boost productivity by 97.52% when all variables are zero, this constant does not significantly diverge from zero.

Thus, any productivity increase attributed solely to this constant should be cautiously interpreted. This emphasizes the need to examine the individual contributions of the independent variables for a clearer understanding of their effects on productivity.

Education (X1) emerges as a robust predictor, with a beta coefficient of 1.024. This indicates that a 1% increase in education enhances work productivity by approximately 10.34%. This relationship is highly significant (Sig. = 0.000 < 0.05), underscoring the critical role of education in boosting productivity.

The standardized coefficient (Beta) of 0.657 further solidifies education's strong predictive power within the model. This substantial influence suggests that investment in education is likely to yield significant productivity gains, aligning with broader research emphasizing the value of education in enhancing workforce capabilities.

Contrastingly, training (X2) has a beta coefficient of -0.011, indicating that a 1% increase in training slightly reduces productivity by 0.011 units. However, this effect is statistically insignificant (Sig. = 0.969 > 0.05), suggesting that training does not significantly influence productivity in this context. The negative direction and lack of significance could be attributed to various factors, such as the quality or relevance of training programs. The standardized coefficient (Beta) of -0.006 indicates that training is a very weak predictor, warranting a reevaluation of the training initiatives to ensure they effectively enhance productivity.

Work experience (X3) also shows an insignificant impact on productivity, with a beta coefficient of 0.341 (Sig. = 0.207 > 0.05). While the coefficient suggests that a 1% increase in work experience could theoretically boost productivity by 34.1%, the lack of statistical significance implies that this effect is not reliable within the given data set. The standardized coefficient (Beta) of 0.195 further indicates a weak predictive power for work experience. This finding suggests that factors beyond mere duration of work, such as the nature of experience or its alignment with job requirements, might be crucial in enhancing productivity. Overall, while education stands out as a significant predictor, the roles of training and work experience require further scrutiny to uncover their potential productivity impacts.

## DISCUSSION

The findings of this study indicate that among the variables examined—Education, Training, and Work Experience—only Education significantly impacts Work Productivity, as evidenced by its statistically significant t-value of 5.041 (p < 0.05). This aligns with previous research by Jones et al. (2019), who also found that higher educational attainment strongly correlates with increased productivity.

Conversely, Training and Work Experience did not show significant effects on productivity in this study, which contrasts with the conclusions of Smith (2017), who reported that on-the-job training significantly enhances employee performance. The absence of a significant relationship between Work Experience and productivity could be attributed to the specific industry context or sample characteristics, suggesting that further research is needed to explore these variables in different settings.

The robust R Square value of 0.504 underscores the model's overall efficacy in explaining the variance in Work Productivity, affirming the crucial role of educational background in workforce efficiency. The data were supported by the hypothesized relationship. (Otoo, 2024) Construct reliability and validity were established through confirmatory factor analysis. The proposed model and hypotheses were evaluated using structural equation modeling.

## CONCLUSION

The analysis of the data reveals that Education (X1) is a significant predictor of Work Productivity (Y), with a substantial positive impact, as evidenced by its highly significant t-value (5.041) and standardized coefficient (Beta = 0.657). This indicates that improvements in education are likely to lead to significant increases in work productivity. However, Training (X2) and Work Experience (X3) do not show significant effects on Work Productivity, as indicated by their respective t-values (-0.039 and 0.195), which are below the critical threshold. The overall regression model is significant, explaining approximately 50.4% of the variability in Work Productivity ( $R^2 = 0.504$ ), and the F-test confirms the model's robustness (F = 10.518, p < 0.05). These findings suggest that while enhancing educational qualifications should be a priority to boost productivity, training programs, and work experience alone may not suffice. Therefore, it is recommended that organizations focus on comprehensive educational development as a strategic approach to improving workforce productivity, while re-evaluating and potentially redesigning training and work experience programs to better align with productivity goals.

## SUGGESTION

Given the results, it is evident that educational qualifications play a pivotal role in enhancing work productivity. Therefore, organizations must invest in continuous educational development for their employees. This can include sponsoring advanced degrees, offering tuition reimbursement programs, and facilitating access to relevant courses and certifications. While the current training programs and work experience do not significantly impact productivity, it is crucial to not discard their potential value but rather to critically reassess and enhance these programs. Organizations should conduct thorough needs assessments to tailor training programs that are more aligned with specific job requirements and productivity outcomes. Additionally, integrating experiential learning opportunities that combine education with practical work experience could create a more synergistic effect on productivity. Collaboration with educational institutions to design custom programs that address the unique needs of the organization could also be a viable strategy. This holistic approach, combining robust educational initiatives with refined training and experiential learning, is likely to yield a more significant and sustainable increase in workforce productivity.

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