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The Influence of Training and Education on Employee Productivity in Offset Printing Section in Perum Peruri Karawang, West Java.

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Abstrak

Kualitas uang kertas cetak yang didistribusikan ke masyarakat harus memenuhi standar yang tinggi. Penelitian ini bertujuan untuk mengetahui pengaruh pelatihan dan pendidikan terhadap produktivitas karyawan di Bagian Percetakan Offset Perum Peruri Karawang, Jawa Barat. Metode yang digunakan dalam penelitian ini adalah deskriptif kuantitatif sederhana dengan dua variabel, yaitu bebas dan terikat, untuk menganalisis kontribusi pelatihan dan pendidikan terhadap produktivitas karyawan. Seluruh populasi karyawan yang berjumlah 58 orang digunakan sebagai sampel penelitian. Pengumpulan data menggunakan kuesioner merupakan data primer dalam penelitian ini, dengan menggunakan skala likert. Hasil penelitian ini adalah pelatihan dan pendidikan sangat penting untuk meningkatkan produktivitas karyawan di Bagian Percetakan Offset, mengingat tingkat presisi dan kualitas cetak sangat diperlukan untuk identitas negara.

Kata Kunci : Pendidikan, Pelatihan, Produktivitas Karyawan.

Abstract

The quality of printed banknotes distributed to the society has to meet a high standard. This research is to study the impact of training and education on employee productivity in Offset Printing Section in Perum Peruri Karawang, West Java. The methods used in the research are simple descriptive quantitative with two variables, independent and dependent, to analyze the contribution of training and education on the productivity of the employees. The entire population of the employees, consisting of 58 employees, are used as the samples of the research. Collecting data by means of questionnaires is the primary data in the research, by using Likert scale. The result of the research is that training and education is very important to increase the productivity of the employees in the Offset Printing section, considering that the precision rate and printing quality are highly necessary for the identity of the country.

Keywords : Education, Training, Employee Productivity.

Introduction

Perum Peruri (The Banknotes Printing and Minting Corporation of the Republic of Indonesia) is the only State Enterprise under the Ministry of State-Owned Enterprises (BUMN) given the responsibility as Indonesian Rupiah money printer (banknotes and coins), passports, stamps, excise stamps, land certificates, and digital security printing, as stated in Government Regulation No.6 Year 2019.

Perum Peruri was established on 15 September 1971. The headquarter is on Jalan Palatehan No 4 Kebayoran Baru, South Jakarta with production offices located in Parung Mulya Village, Ciampel District, Karawang Regency. As the company has grown, Perum Peruri certainly pays great attention to the management of its human resources, especially in terms of implementing education and job training.

Offset Printing Section is a unit under Banknotes Printing Department of Perum Peruri. The responsibility of the unit is to print the basic images of banknotes equipped by high security. At this moment, there are no education and job training programs for the employees before they start their job. In addition, education and job training hours for permanent employees are reduced from a minimum of 24 hours per year (3 working days) to less than 24 hours per year.

The reduction of education and training hours has a significant impact on not only individual productivity achievement but also company productivity. The table below shows the comparison of the education and training for the employees during the period of 2022 and 2023, taken from average accumulated data of education and training programs.

Table 1: Education and Training Programs in Offset Printing Section

Working units	Employee Status	2021	2022	2023
Offset Printing Section	Permanent employees	Covid 19 Pandemic	24 hours	16 hours
Offset Printing Section	Contract employees	Covid 19 Pandemic	-	-

Source: Education and Training Division of Peruri 2023

Apart from job training problems, work productivity problems are also found in the field. The productivity is decreasing due to the lack of employees' understanding on their job descriptions, and employees also show less concern about their responsibilities. It is also the result of the lack of employees' knowledge and skills on proper work procedures, caused by there is no training and education for the contract employees on their jobs and responsibilities. In other words, the employees are learning by doing the job. This relevance must be supported by human resources development through education and training programs.

Table 2: The Percentage of the Productivity in Offset Printing Section

Working units	Employee Status	2021	2022	2023
Offset Printing Section	Permanent employees	Covid 19 Pandemic	93,57%	92,43%
Offset Printing Section	Contract employees	Covid 19 Pandemic	-	-

Source: Internal Productivity of Offset Printing Section

The result of education and training as described is to get the society in a responsible position to improve their knowledge, attitudes, talents, and personality traits—leads to development. The implementation of these activities is often formal and focused on the tactics to improve the competency of the staff for higher positions. (Dewi and Rozalena 2017; 110) in (Subyantoro et al, 2022:1-2).

Providing education and training is obligated in accordance with the composition of the employees' duties. Therefore, the employees are able to do their duties optimally, trained, and professionally. The education and training is provided not only for the new employees but also the employees with longer working periods, in order to improve their skills and abilities (Peuuma et al, 2023).

Education and training for the employees is highly necessary to improve the

employees' performance, in order to support high productivity. It is also in line with company strategy to achieve long-term goals. Therefore, the training conducted by the company for the employees is expected to improve employees' work performance and company productivity. (Komarudin, 2018).

Journal (-Rustomo at.all, 2023) As one of the motivation supports in optimal work productivity, almost all the companies are targeting efficiency that can lead to company profitability improvement. To achieve this target, companies do various efforts to improve the abilities and skills of their employees, so they can work effectively and efficiently either in quality or quantity.

Nowadays, productivity problems have become the main concern of companies. The employees have realized that productivity can improve their welfare. Work productivity includes many factors, such as organizational productivity, marketing productivity, employees productivity, and so on. Productivity is generally defined as the correlation of input and results. It is widely believed that productivity is increasing as production increases. Most experts have agreed that productivity can be stated as output divided by input, output per unit, or the ratio of input and output (Sukatendel at.all, 2021).

Journal (Annisa & at.all, 2023), (Indah Rahmawati, 2021), (Komarudin, 2018), The result of this research shows that employees' work productivity is affected positively and by education and training. Consequently, work productivity is affected positively and significantly by work motivation. The definition of productivity differs among specialists. The author provides many definitions of employees' productivity to help the readers in getting deeper knowledge on productivity. The comparison of input and result is known as work productivity. The increase of productivity will lead to the increase of the efficiency (time, material, energy), working system, manufacturing methods, and employees' skills.

THE METHOD OF THE STUDY

This research method is survey research with quantitative research method using numbers and statistics. The data collection technique involves conducting initial observations as a step in introducing the research object, as well as simple interviews. By continuing to distribute and fill out questionnaires by respondents, (Fauziah, 2018) . Measurement scale with a Linkert scale of 1-5, to measure the perceptions, attitudes or opinions of a person or group regarding an event or social phenomenon, based on the operational definition that has been determined by the researcher, (Ghozali, 2018:66) . Testing of instruments that have been entered in validity and reliability tests were conducted for each independent variable and dependent variable. The population is a generalization

area of the objects studied for all employees in Offset Printing Section of Perum Peruri Karawang, West Java, totaling 58 people. The sample used in this research was all employees in Offset Printing Section of Perum Peruri Karawang, West Java using a population sampling technique or saturated sample, where the entire population is used as a sample in this research, (Sugiyono, 2016) . Data analysis in this research uses multiple regression analysis which is used to describe and test models of relationships between variables in the form of cause and effect to test hypotheses. And measuring the contribution of the independent variable to the dependent variable as a step to determine the relationship and influence, Arikunto in (Jayusman et al. 2020) .

RESULTS AND DISCUSSION

Employees in Offset Printing Section print Corporation Peruri Karawang , West Java is dominated by ethnic groups productive at any age between 25 – 45 years as many as 45 employees equivalent to 75%, and during employment the average range is 10 years as many as 49 employees equivalent to 85%. By general results, spread questionnaire can be illustrated in the table statistics descriptive, where the field statistics known as statistics descriptive focuses on collecting, organizing, and displaying research data. For more comprehensive information, statistics descriptive compress, display, and describe the data in easier way to be understood. In other words, statistics descriptive only gives wide description about the data collected. They only relate with revealing items or offer information about facts, events, or occurrence. Data collection and presentation methods which gives meaningful information is known as statistics descriptive (Walpole, 1995). By using sample data or population, statistics descriptive works either to characterize or to give description about the subject of the research, (Sugiyono, 2016).

Table 4.1: Statistics Descriptive

		Statistics	
		Training Education	Productivity Work
N	Valid	58	58
	Missing	0	0
Mean		75.1897	76.7414
Std. Error of Mean		2.15975	2.16550
Median		79,5000	81,0000
Mode		87.00	86.00
Std. Deviation		16.44817	16.49195
Variance		270,542	271,985

Range	79.00	80.00
Minimum	21.00	20.00
Maximum	100.00	100.00
Sum	4361.00	4451.00

Source : SPSS 25 data processing for 2024

Table 4.1. By using sample data or population, statistics descriptive works either to characterize or to give description about the subject of the research. Statistics descriptive often displays data as measurement or organized data in a centralized way. The average is the common metrics used to centralize data with education and training of 75.2 and productivity work of 76.7, Sugiyono in (Abdullah, 2022:66) .

Data Analysis

The result of the questionnaire distribution as the main points of the primary data shows that there are 58 employees submitting respondents questionnaire in Offset Printing Section, Perum Peruri Karawang, West Java.

Classic assumption testing as precondition statistics for multiple linear regression analysis based on normal smallest square is called a classic assumption test. Normality test has been done by histogram and PP-Plot, as shown on the following image:

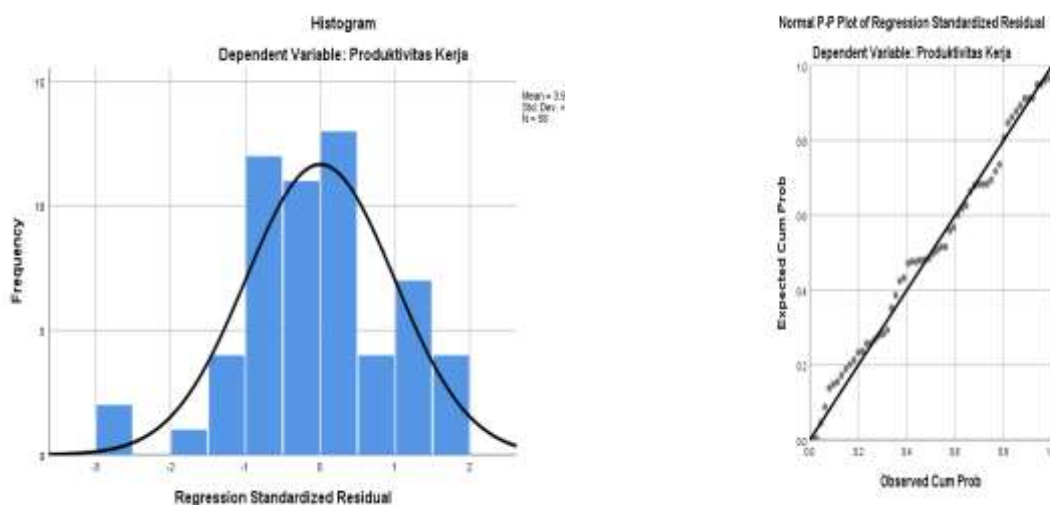


Figure 4.1: Normality Test (source : SPSS 25 data processing, 2024)

The PP-Plot and histogram normality tests are shown in Figure 4.1: The diagonal line formed by the normal distribution is straight. Normal data will show a very low and very high numbers, with most common results is in range of intermediate. If the distribution of the remaining data is normal, then the line represents the rest of the data will be behind the

diagonal line. If the dots are spread and follow the direction of the diagonal line, then the diagram will draw a straight diagonal line.

Whereas plot scatter chart works as a base in taking decision in heteroscedasticity test. SPSS scatter chart can be used to conclude heteroscedasticity if it displays a certain pattern, for example forming regular dots pattern (wavy, spreading, then narrowed). On the other hand, heteroscedasticity will not happen if the dots scattered and do not show clear pattern.

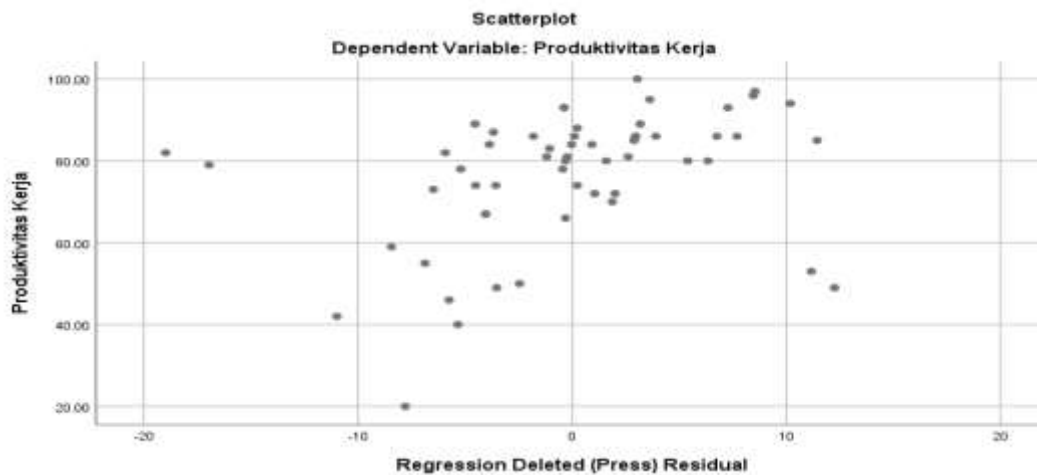


Figure 4.2: Heteroscedasticity test (source : SPSS 25 data processing, 2024)

As seen in figure 4.2., From the spread graph, there is no visible pattern because the dots are spread irregularly above and below 0 axis on the Y axis. Therefore, we can say that there is no sign of heteroscedasticity.

Research questionnaire results are tested for its validity and reliability, to determine what to assess and whether the questionnaire filled by respondents are consistent. Validity test findings of SPSS 25 data processing shows that out of the 58 respondents who made valid judgments, all related statements with independent and dependent variables have the results above 0.254 for the R product moment table. Cronbach's alpha in reliability testing combining the three variables is 0.964, above the established 0.70 level for Cronbach's alpha, (Ghozali, 2018). Additionally, the following table shows the partial treatment of the three variables, with Cronbach's alpha findings above 0.70 .

Table 4.2: Reliability test results

Item-Total Statistics			
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item Total Correlation
Training Education	76.7414	271,985	,931

Productivity Work	75.1897	270,542	,931
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Source : SPSS 25 data processing, 2024

The correlation between independent and dependent variables is shown in table 4.3 below, and it shows that The R value of the summary model is 0.931. It can be concluded that the correlation of independent and dependent variables is positively strong in accordance with the table of coefficient correlation interpretation, (Sugiyono, 2018) .

Meanwhile, the contribution of R square value is 0.886, or equivalent with 88.6% of the education and training contribution to work productivity. this contribution is positively very strong in Offset Printing Section of Perum Peruri Karawang, West Java. In addition, the remaining 11.4% is influenced by other factors that have not been examined in the research.

Table 4.3 Correlation Model Table

Model Summary ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,931 ^a	,866	,864	6.08776

a. Predictors: (Constant), Education Training

b. Dependent Variable: Productivity Work

Source : SPSS 25 data processing, 2024

The influence of two independent variable on dependent variable in simple regression testing.

$$Y = a + bX \text{ with } Y \text{ value} = 6.579 + 0.933X$$

Table 4.4: Simple Regression

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6,579	3,772		1,744	,007
	Training Education	,933	,049	,931	19,035	,000

a. Dependent Variable: Productivity Work

Source : SPSS 25 data processing, 2024

The value of the constant (a) is 6.579 which is signed positive. Indication of the existence of unidirectional influence between independent and dependent variables was shown with positive sign. It can be seen that education and training value (X) of 0.933 against work productivity (Y) shows a very strong positive correlation, with significant value *P-value* = 0.007, bigger than alpha value = 0.05 (*p-value* < *alpha*). So it can be decided that the influence is not significant.

In determining whether the independent variable influences the dependent variable simultaneously or not is the aim of the F test. The value of the influence of each independent variable on the dependent variable entirely is ascertained using the F test. The significance threshold of $F < 0.05$ is achieved if the independent variable influences the dependent variable simultaneously, or vice versa. There is a criterion of 0.5 or 5% (Ghozali, 2018). Conclusion: If F has a significant value of less than 0.05 then H1 is detected and H0 is ignored. If the significance value of F is more than 0.05 then H0 is accepted and H1 shows that there is not a single independent factor that has a significant effect on the dependent variable.

Table 4.5: Anova test

		ANOVA ^a				
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13427.715	1	13427.715	362,316	,000 ^b
	Residual	2075.406	56	37,061		
	Total	15503.121	57			

a. Dependent Variable: Productivity Work

b. Predictors: (Constant), Education Training

Source : SPSS 25 data processing, 2024

The conclusion that H0 is rejected and H1 is accepted is supported by Table 4.5. This can be seen from the F value obtained at 362, 316. Meanwhile, the calculated significance value is 0.000, which is less than 0.05. Thus, it can be concluded that this simple regression model is feasible to use independent variables that simultaneously influence the dependent variable.

CONCLUSION

Based on the results of the test and analysis of the correlation between X variable and Y variable, on the influence of education and training on employees' productivity in Offset Printing Section Perum Peruri, it can be concluded that there is a correlation of education and training variables with employees' productivity variable. It is because t count value (19.035) is higher than t table value (1.744), so that H1 is accepted as t count value is on the rejection region or critical region H0. In addition, education and training variable has a strong positive influence, because the r value is 0.931 (and on the correlation coefficient interval 0.80-1.00). It also has contribution influence of 86.6% on employees' productivity variable. Meanwhile, the rest (13.4%) is affected by other factors.

Therefore, the implementation of education and training in Offset Printing Section Perum Peruri is highly necessary and has to be conducted periodically, so that each employee can improve their knowledge and individual competition. This way, the employees will be accountable for work productivity and at last company productivity will increase.

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