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## Effect of Training on Employee Performance with Work Motivation as Intervening Variable (Study on Employees of PT Pertamina Fuel Terminal Tuban)

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### Abstract

*The study aimed was to determine the effect of training on employee performance and to determine whether work motivation variables could mediate the influence of training on employee performance variables. This research was conducted on employees of PT Pertamina Fuel Terminal Tuban with a total of 58 respondents. Data was collected using a closed questionnaire. The data analysis technique used in this research is path analysis, hypothesis testing using t tet-test the Sobel test. The results of this study indicate that the training variable has a positive and significant effect on employee performance, the training variable has a positive and significant effect on work motivation and the work motivation variable has a positive and significant effect on employee performance.*

**Keywords:** Training, Work Motivation, and Employee Performance

### Abstrak

Penelitian ini bertujuan untuk mengetahui pengaruh pelatihan terhadap kinerja karyawan dan untuk mengetahui apakah variabel motivasi kerja dapat memediasi pengaruh pelatihan terhadap variabel kinerja karyawan. Penelitian ini dilakukan pada karyawan PT Pertamina Fuel Terminal Tuban dengan jumlah responden sebanyak 58 orang. Pengumpulan data dilakukan dengan menggunakan kuesioner tertutup. Teknik analisis data yang digunakan dalam penelitian ini adalah analisis jalur, pengujian hipotesis menggunakan uji t dan uji Sobel. Hasil penelitian ini menunjukkan bahwa variabel pelatihan berpengaruh positif dan signifikan terhadap kinerja karyawan, variabel pelatihan berpengaruh positif dan signifikan terhadap motivasi kerja dan variabel motivasi kerja berpengaruh positif dan signifikan terhadap kinerja karyawan.

Kata Kunci: Pelatihan, Motivasi Kerja dan Kinerja Karyawan

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## INTRODUCTION

Tuban Fuel Terminal is a facility unit provided by PT Pertamina (Persero) as a depot for receiving, stockpiling, and distributing fuel oil (BBM) to meet fuel needs in the Tuban area and its surroundings. PT Pertamina Fuel Terminal Tuban itself is one of the companies with high occupational health and safety risks. This can pose risks and potential hazards that will affect the performance of employees and the company. In addition to all aspects within the company that is flammable, there are several risks and dangers faced by employees, including somatic hazards, environmental hazards both physically, biologically, and chemically, ergonomic hazards, and human error (source: Health Safety

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Security & Environment (HSSE) Pertamina). Some of the risk factors and potential hazards above will, of course, also have an impact on employee performance, one of which can be measured by safe working hours, where safe person-hours is one of the indicators used by the Tuban Fuel Terminal as a standard in measuring performance. The Tuban Fuel Terminal uses the achievement of safe working hours to see how effective the performance program is, which means that the higher the safe working hours obtained, the higher the performance targets achieved.

**Table 1.** Hour of Work Congratulations

No	Fuel Terminal (FT)	Year 2018 - 2020
1	Tuban Fuel Terminal	500,191
2	Madiun Fuel Terminal	1,413,591

Source: Health Safety Security & Environment (HSSE) Pertamina 2020

Table 1 above shows that within three years the Tuban Fuel Terminal recorded only 500,191 safe working hours. As a result, the entire series of activities for receiving, stockpiling, and distributing fuel at the Tuban Fuel Terminal is disrupted.

**Table 1** Tuban Fuel Terminal Fuel Sales Data for 2018 2020

No	Year	Target (KL)	Realization (KL)	Information
1.	2018	7,144,460	7,144,460	Achieved
2.	2019	8,255,710	7,821,210	Not achieved
3.	2020	7,428,250	7,078,800	Not achieved

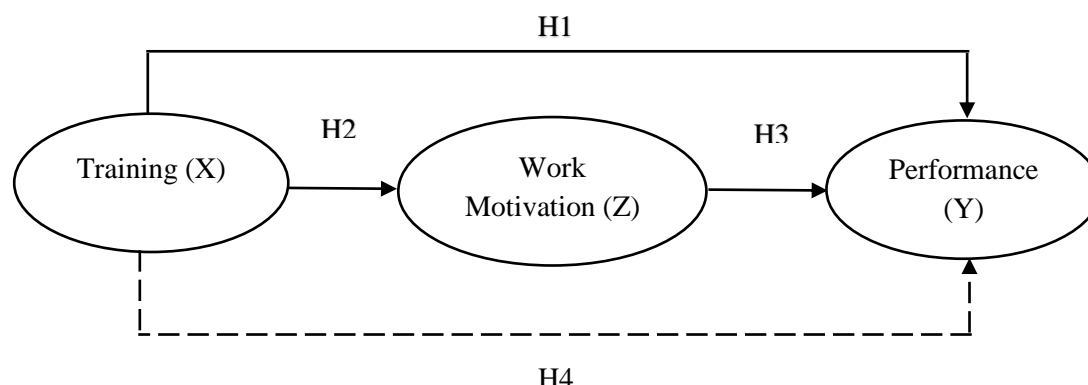
Source: RSD (Receiving, Storage & Distribution) Pertamina 2020

Based on these data, it shows that the performance of the Tuban Fuel Terminal continues to decline where the sales target for all fuel products in the last two years has not been achieved. Therefore, companies need to continue to be required to be able to carry out the transformation, optimization, and various efforts to improve employee performance both at PT Pertamina (Persero) itself and in all business units, including the Tuban Fuel Terminal, one of which is by holding training programs regularly. Gradual, tiered, and continuous and foster work motivation in each employee. Based on previous research conducted by Shidiq *et al.*, (2019), training has a positive and significant effect on motivation. Still, exercise does not directly impact employee performance, mediated by motivational variables, and training will have an impact on employee performance. From the results above, it can be concluded that employee performance can automatically increase if the training is carried out correctly and is supported by high work motivation.

## LITERATURE REVIEW

Performance is often used to refer to the achievement or level of success of an individual or group. Performance is work achieved by a person in carrying out and completing the work assigned to him (Sunyoto, 2013). According to Mangkunegara (2012) employee performance is the result of the quality and quantity of work achieved by an employee in carrying out their duties by the responsibilities they provide. According to Suparno (2015) training is a series of individual activities in systematically increasing skills and knowledge so that they can have professional performance in their fields. Meanwhile, according to Triyono (2012) training is an activity to improve the mastery of various skills and techniques of carrying out certain work. According to Rivai (2009) states that job training has several effects on employees, one of which is the increase and development of employee motivation in carrying out their duties. The term motivation comes from the Latin

word "movere" which means to encourage or move. Motivation is how to direct the power and potential to work to achieve the specified goals (Hasibuan, 2006). BA person works because of the desire to fulfill his life needs, which according to (Siagan, 2006) states that motivation is the driving force for someone to make the greatest possible contribution to the success of the organization in achieving its goal (Novianti, 2021; Roz, 2019). Meanwhile, according to (Mangkunegara, 2009) says that motivation is a condition or energy that moves employees who are directed to achieve company organizational goals.



**Figure 1.** Conceptual Framework

## RESEARCH METHODS

This research was conducted at PT Pertamina Fuel Terminal Tuban. The type of research used in this research is quantitative with an explanatory research method with a total population and sample of 58 employees of the sales service & general affairs division. Sampling in this research using a total sampling technique. This study uses a Linkert scale by measuring the variables of the respondents' answers with data collection techniques using questionnaires. The analytical tools used are data analysis techniques in the form of instrument tests consisting of validity and reliability tests, classical assumption tests consisting of normality tests, multicollinearity tests, heteroscedasticity tests and autocorrelation tests, path analysis, and hypothesis testing consisting of t-test and Sobel test.

## RESULTS AND DISCUSSION

According to Table 3, 72 percent of respondents are male and 28 percent are female, majority are on the ages of 32 and 36, and the majority of their work experience is between 11-20 years.

**Table 3.** Result Description of Respondents Characteristics

No.	Information	Amount	Percentage
1.	Age	17 - 21 Years	10 17%
		22 - 26 Years	14 24%
		27 - 31 Years	16 28%
		32 - 36 Years	18 31%
2.	Gender	Man	42 72%
		Woman	16 28%
3.	Last education	senior High School	12 21%
		S1	43 74%

No.	Information	Amount	Percentage
	other	3	5%
4.	Length of working	1 – 10 Years	43%
		11 – 20 Years	57%

*Source:* Data Processed by Researchers, 2021

Based on the characteristics of the respondents above, it can be said that the lowest age range of respondents is 17 years and the highest age is 36 years. From these data, it can be seen that the answer description table. Meanwhile, based on gender, the majority are male, for the last education it is dominated by graduates as many as 43 people and the last characteristic based on length of work is the lowest range starting from 1 year to 20 years of work as shown in the table above.

**Table 4.** Validity Test Results

Variable	Question Items	Error Rate	R-count	R-table	Information
Training	x_1		0.628		Valid
	x_2		0.566		Valid
	x_3		0.574		Valid
	x_4		0.640		Valid
	x_5		0.652		Valid
	x_6		0.701		Valid
	x_7	0.05	0.667	0.258	Valid
	x_8		0.822		Valid
	x_9		0.583		Valid
	x_10		0.512		Valid
	x_11		0.628		Valid
	x_12		0.566		Valid
	x_13		0.510		Valid
Work motivation	z_1		0.843		Valid
	z_2		0.843		Valid
	z_3	0.05	0.683	0.258	Valid
	z_4		0.660		Valid
	z_5		0.691		Valid
Employee performance	y_1		0.827		Valid
	y_2		0.648		Valid
	y_3		0.573		Valid
	y_4		0.584		Valid
	y_5		0.745		Valid
	y_6		0.753		Valid
	y_7		0.650		Valid
	y_8	0.05	0.827	0.258	Valid
	y_9		0.516		Valid
	y_10		0.582		Valid
	y_11		0.745		Valid
	y_12		0.656		Valid
	y_13		0.540		Valid
	y_14		0.511		Valid
	y_15		0.717		Valid

*Source:* Data Processed by Researchers, 2021

Based on table 4 above, it can be seen that all indicator items have a count > r-table, which is 0.258, so it can be concluded that all questions on the questionnaire which include training, work motivation, and employee performance variables are valid.

**Table 5.** Reliability Test Results

No	Variable	Cronbach's Alpha	Alpha level	Information
1.	Training (X)	0.863		Reliable
2.	Work Motivation (Z)	0.776	0.600	Reliable
3.	Employee Performance (Y)	0.902		Reliable

The data analysis table 5 above shows that all variables have a Cronbach Alpha value greater than 0.600. Thus, it can be concluded that each question item from the variables in this study is reliable.

**Table 6.** Kolmogorov-Smirnov Test Results

Unstandardized Residual		
N		58
Normal Parameters, b	mean	.0000000
	Std. Deviation	2.32584602
Most Extreme Differences	Absolute	.070
	Positive	.057
	negative	-.070
Test Statistics		.070
asympt. Sig. (2-tailed)		.200

From the results of the Kolmogorov - Smirnov test in table 4.4 above, it can be shown that the data obtained from the respondents are said to be normally distributed. Where this is due to the results of Asymp.Sig. (2-tailed) obtained 0.200 which is greater than 0.05.

**Table 7** Multicollinearity Test Results

Variable	Tolerance Value	VIF	Information
Training (X)	0.718	1.393	Multicollinearity does not occur
Work Motivation (Z)	0.718	1.393	Multicollinearity does not occur

Based on the data in table 7 above, it can be seen that the training and cooperation motivation variables have a tolerance value of 0.718 with a VIF value of 1.393. So from the two data, it can be concluded that the variable of training and work motivation does not occur multicollinearity because the VIF value is less than 10 and the tolerance value is more than 0.10.

**Table 8.** Glejser. Heteroscedasticity Test Results

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
1 (Constant)	9.366	3.447		2.718	.009
Training	-.029	.070	-.064	-.411	.683

Work motivation	-.191	.153	-.193	-1,246	.218
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Based on table 8 above, it is known that the training and work motivation variables each have a significance value > 0.05, meaning that from the two variables, it can be said that there is no heteroscedasticity.

**Table 9.** Autocorrelation Test Results

dU	d	4-dU	Interpretation
1,610	2,218	2,390	No Autocorrelation

Based on the Durbin-Watson (DW) test above, it shows that the value of dU = 1.610 is smaller than the value of d = 2.218 which is also less than 4-dU which is 2.390. Therefore, it can be concluded that this research does not occur autocorrelation.

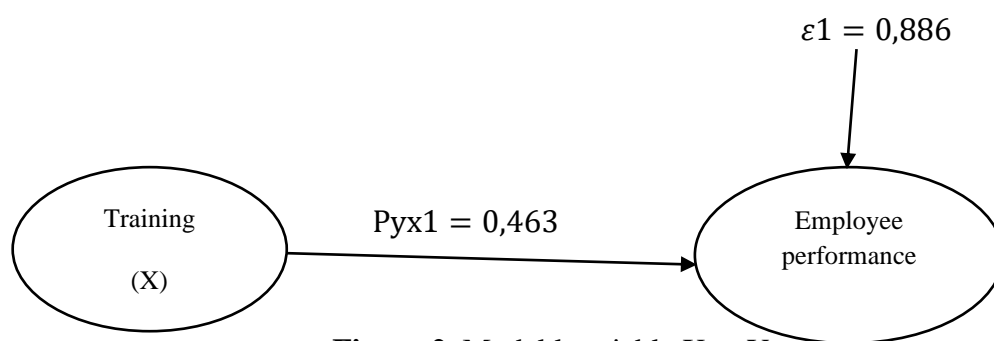
**Table 10.** Testing the Standard Error Model I

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
1 (Constant)	31,577	7,996		3.949	.000
Training	.569	.146	.463	3.908	.000

a. Dependent Variable: Employee Performance

Source: SPSS data processed (2021)

From the analysis of the model table above, it can be seen that the significance value of the training variable (X) on employee performance (Y) is = 0.000 which is smaller than 0.05. These results conclude that the regression test of model I, namely the training variable (X) has a significant effect on the variable (Y) of employee performance. The value of R Square is 0.214. This shows that the contribution of the influence of training (X) on employee performance (Y) is 21.4% while the remaining 78.6% is a contribution from other variables not included in this study. Meanwhile, the value of e1 can be found with the formula  $e1 = (1-0.214) = 0.786 = 0.886$ . Thus, the path diagram of model 1 is obtained as follows:



**Figure 2.** Model I variable X to Y

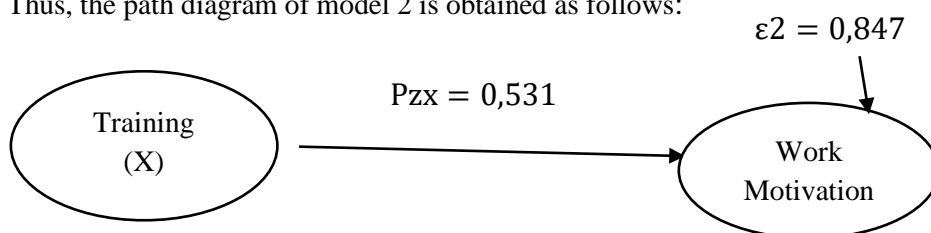
**Table 11.** Testing Standard Error Model 2

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
1 (Constant)	7,465	2.842		2,626	.011
Training	.243	.052	.531	4.692	.000

a. Dependent Variable: Work Motivation

Source: SPSS data processed (2021)

Based on the data from table 11 above, it can be seen that the significance value of the training variable (X) on work motivation (Z) = 0.000. These results conclude that regression model 2 in this case the training variable (X) has a significant effect on work motivation (Z) with a sig value of 0.000 < 0.05. The value of R Square is 0.282. This shows that the contribution of the effect of training (X) on work motivation (Z) is 28.2% while the remaining 71.8% is a contribution from other variables not included in this study. Meanwhile, the value of e2 can be found with the formula  $e2 = (1 - 0.282) = 0.718 = 0.847$ . Thus, the path diagram of model 2 is obtained as follows:



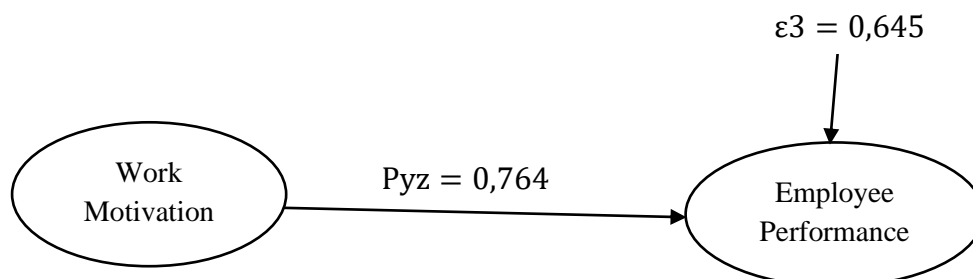
**Figure 3.** Model 2 variables X against Z

**Table 12.** Testing Standard Error Model 3

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
1 (Constant)	20.078	4,847		4.142	.000
Work motivation	2.054	.232	.764	8.856	.000

a. Dependent Variable: Employee Performance

Based on the data from table 12 above, it can be seen that the significance value of the work motivation variable (Z) on employee performance (Y) is = 0.000. These results conclude that regression model 3 in this case the work motivation variable (Z) has a significant effect on employee performance (Y) with a sig value of 0.000 < 0.05. The value of R Square is 0.583. This shows that the contribution of the influence of training (X) on work motivation (Z) is 58.3% while the remaining 41.7% is a contribution from other variables not included in this study. Meanwhile, the value of e3 can be found with the formula  $e3 = (1 - 0.583) = 0.417 = 0.645$ . Thus, the path diagram of model 3 is obtained below:



**Figure 4.** Model 3 variables Z concerning Y

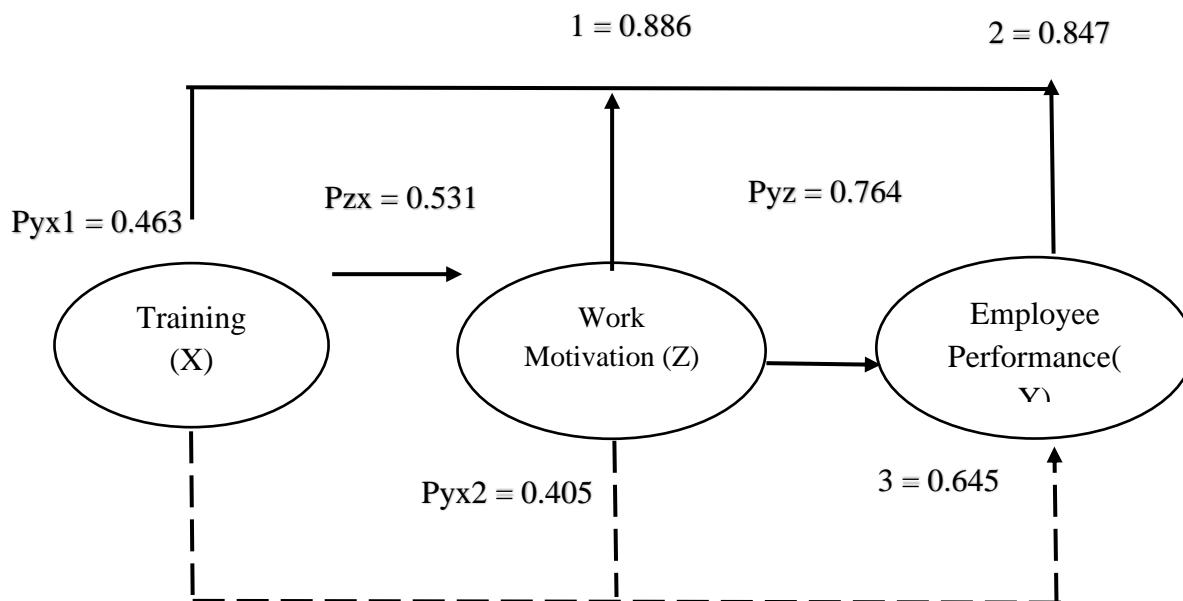


Figure 5. Path Analysis

Table 13. T-Test Analysis Results

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 Training→Employee performance	.569	.146	.463	3.908	.000
2 Training→ Work Motivation	.243	.052	.531	4.692	.000
3 Training→ Work Motivation → Employee Performance	2.054	.232	.764	8.856	.000

Source: SPSS data processed (2021)

Based on the table above, it is known that the t-test results on the training variable (X) on employee performance (Y) obtained a value of 3.908 and a significance level of 0.000 that substantiates that there is a partially significant effect of the training variable (X) on employee performance (Y) where  $t_{count} > t_{table}$   $3.908 > 2.003$  and sig value  $0.000 < 0.05$  then it can be said  $H_1$  accepted. It is known that the t-test results on the training variable (X) on work motivation (Z) obtained a value of 4.692 and a significance level of 0.000. This shows that there is a partially significant effect of the training variable (X) on work motivation (Z) where  $t_{count} = 4.692 > 2.003$  and a significance value of  $0.000 < 0.05$ , it can be said  $t_{count} > t_{table}$  accepted.

Based on the result, it is known that the t-test results on the work motivation variable (Z) on employee performance (Y) obtained a value of 8.856 and a significance level of 0.000. This shows that there is a partially significant effect of the work motivation variable (Z) on employee performance (Y) where  $t_{count} = 8.856 > 2.003$  and a significance value of  $0.000 < 0.05$ , it can be said that  $H_3$  accepted. The results of the Sobel test in this test as follows:

$$S_{ab} = \sqrt{b^2 S_a^2 + a^2 S_b^2 + S_a^2 S_b^2}$$



Information:

- Sa = Standard error XM  
 Sb = Standard error MY  
 b = MY regresi regression coefficient  
 a = XM regression coefficient

Then the calculation results are obtained:

$$S_{ab} = \sqrt{(0,764^2 0,052^2) + (0,531^2 0,232^2) + (0,052^2 0,232^2)}$$

$$= 0.130000472860678$$

$$Z = \frac{ab}{S_{ab}}$$

$$= = 3.13 \frac{(0,531)(0,764)}{0,130000472860678}$$

Based on the results of the Sobel test calculation above, it shows that the z value of 3.13 is higher than the absolute z value of 1.96. This proves that the work motivation variable mediates the effect of training on employee performance in other words, training has a significant positive effect on employee performance through work motivation, so it can be concluded that H4 is accepted.

## CONCLUSION

Based on the results of research and discussions that have been carried out, the following conclusions can be drawn the training at PT Pertamina Fuel Terminal Tuban is in the good category, while the work motivation and performance of employees at PT Pertamina Fuel Terminal Tuban is in the high category. the training variable has a positive and significant effect on employee performance. It can be said that the better the training carried out, the higher the performance of employees at PT Pertamina Fuel Terminal Tuban. the training variable has a positive and significant effect on work motivation. It can be said that good training can increase the work motivation of PT Pertamina Fuel Terminal Tuban employees. The variable of work motivation has a positive and significant effect on employee performance. It can be concluded that the higher the work motivation of employees, the performance target of PT Pertamina Fuel Terminal Tuban will increase. Training has an effect on employee performance through work motivation as an intervening variable for employees of PT Pertamina Fuel Terminal Tuban. It can be said that the better the training program that is run and supported by high work motivation can improve employee performance.

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