

THE EFFECT OF SUPERVISION ON THE TRANSPORTATION PROCESS OF LOAD AND UNLOAD INDUSTRIAL FUEL AT PT. KARIMUN PETRO ENERGIZalmi Dzirrusydi¹, Mitrayati², Zakwan Hilmy³Universitas Karimun^{1,2,3}Email: zalmi270288@gmail.com¹, mitrayati62@gmail.com²**Abstract**

Supervision is a management function in achieving goals. The purpose of this study was to determine how the impact of supervision on the transportation process of load and unload of Industrial Fuel at PT Karimun Petro Energi. This research method is quantitative research, using simple linear regression data analysis. Research results based on simple linear regression analysis obtained a value for the supervision variable of 0.634 and with an intercept of 42,976, so that the simple linear regression equation model is $Y = 42,976 + 0.634X + e$. The meaning is that there is a positive influence between the supervision variable (X) on the transportation of load and unload of fuel (Y). The T test results obtained a tcount value of 2.445 with a significant level of 0.008. Where $T_{hitung} (2.445) > T_{table} (2.01)$ means that there is a significant influence between supervision on the transportation process. The test results of the coefficient of determination (R^2) Adjusted R Square is 0.617, which means that 61.7% of the transportation variable (Y) can be explained by the Supervision variable (X), while the remaining 38.3% is another variable that has not been studied.

KeyWord: Effect, Supervision, Transportation.**INTRODUCTION**

Essentially, one of the links in the chain of maritime transportation activities is the load and unload of goods to and from the ship at the port. Goods load and unload is an activity of transfer of transported goods, both from the transport ship to the dock or to the barge, or vice versa from the dock or the barge to the deck of the transport ship.(Darmawan & Widayanti, 2024) Considering that the activity of a stevedore includes load and unload of cargoes from and to the vessel, the activity of a stevedore is, in principle, one of the links of sea transportation of cargoes. If the goods to be transported to the ship need to be unloaded, they must be unloaded either from the Line I warehouse or directly from the vehicle. Similarly, goods to be unloaded from the ship must also be unloaded and transferred to the Line I warehouse or directly to the next means of transport.(Khaldun et al., 2018) The stevedoring company's load and unload business is a service activity that involves load and unload activities to and from the ship, consisting of stevedoring, cargodoring, and receiving/delivering activities.(Dewi & Majid, 2020)

Effective and efficient load and unload activities must be a priority for any company that wants to grow rapidly and be highly competitive, because higher technology in a company is an absolute necessity.(Rifani et al., 2016) Each load and unload operator must be able to supervise and plan the activities as well as possible and must cooperate with related parties in order to reduce the level of idle time and waiting time and not to swell the operating costs, both of which include the load and unload labor factor (TKBM) and the tools used in the load and unload process in order to rationalize and streamline the load and unload performance, especially in dry bulk load and unload activities, which are loads that can experience shrinkage if the handling is less careful.(Andromeda & Pratama, 2018)

Sometimes problems occur during the load and unload activities in the port, which result in blocking the flow of goods distribution, causing time and cost losses for shipowners and cargo owners. These problems cause cost overruns to be borne by shipowners, namely port service charges and vessel operating expenses while in port. Port service charges include ship berthing fees, mooring fees, stevedore and fleet rental fees, and wharf rental fees, while ship operating expenses include salary costs, crew costs, fuel costs, and others. Therefore, the longer the vessel is in port, the higher the cost of vessel expenses, which may result in losses for ocean carriers.(GALUH, 2019)

Monitoring, as one of the management functions in target achievement, plays a very significant role because monitoring can prevent the possibility of deviations, so that efforts can be made to make improvements or corrections immediately. According to (Limantara et al., 2017), it is said that supervision is not only looking at something carefully and reporting the results of supervision activities, but also includes the meaning of correcting and straightening it in order to achieve goals according to what he wants. According to (Yaningsih & Triwahyuni, 2022) argues that the process of monitoring how all organizational activities are performed to ensure that what is done is done according to established plans.

Sea transportation is a commercial shipping business engaged in the provision of sea cargo transportation services, where its business activities are very broad in scope and play an important role in the promotion of domestic and foreign trade, including in its efforts to facilitate the flow of goods from production areas to consumption areas. In the sense of sea transportation, trade can be considered as an activity of business aimed at increasing the importance and usefulness of an object by moving the goods from one island (country) to another island (country).

According to the Government Regulation No. 82 of 1988 on Water Transportation, the definition of maritime transportation is defined as any transportation by ship for the purpose of transporting passengers, goods and/or animals in one or more voyages from one port to another port organized by a maritime transportation company. (PP No. 82 of 1999 Chapter I Article 1 paragraph 2 concerning Water Transport).

According to Sudjarmiko in (Ramdani & Erliyana, 2020) load and unload means the transfer of cargo from and onto the ship to be stockpiled into or directly transported to the place of the owner of the goods by going through the port dock by using load and unload equipment, both those on the dock and those on the ship itself. For this reason, in the process of transporting BBM load and unload, good supervision is needed to avoid problems that arise in the process of transporting BBM load and unload. (Darmawan & Widayanti, 2024) So that the formulation of the problem that will be discussed in this study is how the influence of supervision on the process of transporting load and unload of industrial fuel at PT Karimun Petro Energi.

RESEARCH METHOD

The research approach method used in this research is a quantitative approach. There are 2 variables in this study, namely the independent variable, namely the supervision variable (X1) and the dependent variable, namely the transportation of load and unload (Y). The sampling technique in this study is to use non-probability sampling technique, namely convenience sampling. (Nurlan, 2019) The data collection techniques used in this study are observation, questionnaire and documentation. Statistical data analysis techniques were used in this study, which consisted of validity and reliability testing, then classical assumption testing and hypothesis testing. (Santoso & Madiistriyatno, 2021) Hypothesis testing includes simple linear regression test, t (partial) test and coefficient of determination (R) test.

RESULTS and DISCUSSION

Validity Test

Tabel. 1 Validity Test

Variabel	Corrected item – total correlation (r hitung)	r table	Description
Monitoring (X)			
P1	0.485	0,312	Valid
P2	0.431	0,312	Valid
P3	0.854	0,312	Valid
P4	0.388	0,312	Valid
P5	0.431	0,312	Valid
P6	0.406	0,312	Valid

P7	0.442	0,312	Valid
P8	0.411	0,312	Valid
P9	0.532	0,312	Valid
P10	0.380	0,312	Valid
Transportation (Y)			
P1	0.711	0,312	Valid
P2	0.405	0,312	Valid
P3	0.641	0,312	Valid
P4	0.359	0,312	Valid
P5	0.508	0,312	Valid
P6	0.380	0,312	Valid
P7	0.487	0,312	Valid
P8	0.338	0,312	Valid
P9	0.400	0,312	Valid
P10	0,382	0,312	Valid

Source: SPSS Data Processing

Based on the data above, it shows that the value of each item has a greater and positive rcount than the rtable with a two-sided test, the rtable is 0.306, so it can be concluded that all indicators of the independent and dependent variables are valid.

Normality Test

Tabel. 2 Normality Test
One-Sample Kolmogorov-Smirnov Test

		Monitoring	Transportation
N		50	50
Normal Parameters ^a	Mean	40.20	40.50
	Std. Deviation	2.373	2.279
Most Extreme Differences	Absolute	.112	.187
	Positive	.088	.187
	Negative	-.112	-.076
Kolmogorov-Smirnov Z		.792	1.321
Asymp. Sig. (2-tailed)		.558	.061
a. Test distribution is Normal.			

Source: SPSS Data Processing

Based on the data from the test results in the table above, it can be seen that the Kolmogorov-Smirnov value of the Supervision variable is 0.792 and its significance at 0.558 is greater than the sig value = 0.05, so the tested data is normally distributed. The Transportation variable is 1.321 and its significance at 0.061 is greater than the sig value = 0.05, so the tested data is normally distributed.

Simple Linear Regression Test

Tabel. 3 Simple Linear Regression Test
Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	42.976	5.570		7.716	.000
Monitoring	.634	.138	.634	2.445	.008

a. Dependent Variable: Transportation

Source: SPSS Data Processing

The simple linear regression equation used in the study is as follows:

$$Y = 42.976 + 0.634X + e$$

Description:

Y = Transportation

X = Supervision

The above regression equation can be interpreted as follows:

1. The regression coefficient of Transportation (Y) is 42.976, which means that if the value of the other variables remains (constant), then Supervision is 42.976.
2. The regression coefficient of Supervision (X) is 0.634, which means that for each increase or decrease in the value of Supervision, Transportation will increase or decrease by 0.634.

a. Determination Test

Tabel. 4 Determination Test
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.634	.664	.617	8.298

a. Predictors: (Constant), Transportation

Source: SPSS Data Processing

Based on the results of the coefficient of determination (R) test in the table above, the adjusted R square is 0.617, which means that 61.7% of the transportation variable (Y) can be explained by the supervision variable (X). While the remaining 38.3% can be explained by other variables not used in this study.

b. Partial Test (T)

Tabel. 5 Partial Test (T)
Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	42.976	5.570		7.716	.000
	Monitoring	.634	.138	.634	2.445	.008

a. Dependent Variable: Transportation

Source: SPSS Data Processing

Based on the t-test results of the supervision variable (X), the t-value is 2.445 with a significance level of 0.008. Thus, the first hypothesis is accepted that supervision has a significant effect on the transportation of industrial fuel load and unload at PT Karimun Petro Energi.

CONCLUSION

Based on the data analysis obtained, it can be concluded that supervision has a positive and significant effect on the transportation of industrial fuel load and unload at PT Karimun Petro Energi. Where based on the data obtained, namely: Based on the results of the simple linear regression analysis conducted, it can be seen that the coefficient of variable regression of supervision (X) is 0.634 which is positive with a sig. 0.008, which is smaller than α 0.05. Hal this menunjukkan bahwa Supervision has a positive and significant effect on the transportation of industrial fuel unloading at PT. Karimun Petro Line. Based on the results of T-test, Hypothesis 1 is answered that H1 is accepted

and shows that supervision has a positive and significant effect on the transportation of industrial fuel unloading at PT Karimun Petro Energi, obtained a t-value of 2.445 with a significance level of 0.008. Where $T_{hitung} (2.445) > T_{tabel} (2.01)$. Based on the results of the coefficient of determination (R^2) test in Table 4.8, the adjusted R square is 0.617, which means that 61.7% of the transportation variable (Y) can be explained by the supervision variable (X). While the remaining 38.3% can be explained by other variables not used in this study.

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