

ANALYSIS OF FACTORS THAT INFLUENCE THE PERFORMANCE OF EMPLOYEES IN BOARDING AND UNLOADING OF SHIP GOODS IN THE PORT

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ABSTRACT

The activity of loading and unloading ship goods at the port is one of the vital activities in the goods distribution chain. The performance of employees involved in this process has a direct impact on port efficiency and productivity as well as safety and security in its operations. However, in practice, a variety of factors might impact employee effectiveness in these activities. The aim of this research is to analyze the factors that influence the performance of employees involved in loading and unloading ship cargo activities at the port. This study uses quantitative research methods by collecting data through surveys using questionnaires and literature studies. The data that has been collected is then analyzed using a regression test using the SPSS program. The research results show that the factors that influence the performance of employees loading and unloading ship goods at the port include supervision, human resource competency and job security. Therefore, to improve employee performance, efforts need to be made such as strengthening the monitoring and control system for employee performance, improving employee training and competency development, and creating safe and comfortable working conditions for employees.

KEYWORDS Factors, Employee Performance, Loading and Unloading of Goods, Ships.



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INTRODUCTION

Ports function as important points in the maritime transportation system that connect regions by carrying out trade activities. Its role is very vital in driving a country's economy by creating sustainable economic growth. According to Law Number 17 of 2008 concerning Shipping, ports provide various types of services to support sea transportation activities, including loading and unloading of goods. The definition of this activity is regulated in Article 1 paragraph 14 of Government Regulation no. 20 of 2010 concerning Water Transport, which describes loading and unloading activities as an effort to manage the process of loading and unloading goods to and from ships at the port. These activities include a number of tasks such as stevedoring, cargodoring, and receiving/delivery (Andriyansah *et al.*, 2022; Wahyudi, 2022).

The loading and unloading activities of ships at ports have a very important role in the global distribution of goods. This process is one of the key stages in the journey of goods from producer to final consumer. Despite the complexity of this logistics process, the performance of personnel participating in loading and unloading operations plays a critical role. Employee performance is a reflection of how well individuals carry out their responsibilities in achieving set goals. This includes aspects of the quality and quantity of work results produced by employees in accordance with the standards established by the firm (Silaen *et al.*, 2021).

The performance of employees involved in the process of loading and unloading ship goods at the port has a direct impact on the overall efficiency and productivity of the port, as well as safety and security in its operations (Fandika *et al.*, 2024). As a key element in the goods distribution chain, efficient and productive employees can ensure that the loading and unloading process runs smoothly, reducing ship waiting times and speeding up the flow of goods. However, in practice, various factors can influence employee performance in ship loading and unloading activities at ports, including supervision (Ningsih *et al.*, 2022).

Supervision is an important process in measuring and evaluating performance, as well as taking the necessary steps to achieve results in accordance with previously established performance standards (Handayani *et al.*, 2017; Djadjuli, 2018). So by regularly monitoring and evaluating activities and work results, supervision allows identifying differences between actual achievements and set targets. In addition, supervision can also help in enforcing established quality standards and procedures, thereby ensuring that work is carried out according to the desired standards (Pudjiarti *et al.*, 2023).

Ridwan *et al.*, (2020) Other factors that are considered capable of influencing employee performance are human resource (HR) competency and work safety. Human resource competency refers to the abilities and knowledge possessed by individuals to carry out certain tasks with the aim of meeting existing needs (Rohida, 2018). Human

resource (HR) competency has a significant role in determining performance in various fields. The abilities, knowledge and skills possessed by HR greatly influence how effectively and efficiently they carry out their duties and responsibilities (Febriyanti and Ginting, 2020).

Meanwhile, work safety is an effort to ensure that workers can carry out their duties without experiencing accidents or injuries that could endanger their lives or health. This involves preventing risks and dangers in the workplace that can cause serious accidents or injuries, as well as efforts to protect workers from these risks (Budihardjo *et al.*, 2017). Employees who feel safe and protected at work are more focused and productive in doing their jobs. Conversely, if there is a risk of accidents or looming insecurity, employees may feel anxious, less comfortable, and less motivated to work efficiently.

Previous research by (Vera, 2019) shows that there is a partial positive effect of individual characteristics, communication and work environment on employee performance with the contribution of the influence of the three variables as much as 50.4%. Another research by (Yusuf, 2023) shows that Individual Characteristic Variables (X1), Communication Variables (X2), Work Environment Variables (X3) are proven to influence the performance of loading and unloading employees at the Jamrud Utara terminal, Tanjung Perak port, Surabaya.

The novelty of this research comes from the research subject, namely the performance of employees loading and unloading ships in Tanjungpandan, Bangka Belitung Province, which has never been studied before. This research can help to enhance human resource management theory and work productivity in the ship loading and unloading industry. The research results can be a basis for developing theoretical models that better explain the dynamics of the relationship between these factors and employee performance. The aim of this research is to analyze the factors that influence the performance of employees involved in loading and unloading ship cargo activities at the port.

RESEARCH METHODS

This study employs quantitative research methods, which are those used to investigate issues that have been measured and have large populations. In the quantitative research process, data can be obtained using many numbers, from the data collection process to its interpretation (Unaradjan, 2019). The location of this research is in Tanjungpandan, Bangka Belitung Province. Data was collected through surveys using questionnaires and literature studies. The population of this study were all employees involved in loading and unloading ship goods at Tanjungpandan Port. The research sample will be selected using a simple random sampling technique from the population. In this technique, each number in the list of applicants (sampling frame) has the same chance of being selected. This technique is used to create an unbiased sample, which is a representation that refers to the entire population (Firmansyah, 2022). Based on these provisions, researchers obtained 50 respondents to be used as samples. The data obtained is subsequently examined using a regression test in the

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SPSS application. Based on this description, the following hypothesis formulation emerges:

H1: Supervision has a significant influence on the performance of employees loading and unloading ship goods at the port

H2: Human Resource Competency Has a Significant Influence on the Performance of Employees in Loading and Unloading Ships at the Port

H3: Work safety has a significant influence on the performance of employees loading and unloading ship goods at the port

RESULT AND DISCUSSIONS

Validity test

Validity tests determine how well a measuring equipment can measure what it is designed to measure. In research, validity testing verifies that the instruments employed assess the variables you wish to explore.

Table 1. Validity Test Correlations

		Supervision	HR Competency	Work safety	Employee performance	TOTAL
Supervision	Pearson Correlation	1	.633**	.497**	.390**	.789**
	Sig. (2-tailed)		<.001	<.001	.005	<.001
	N	50	50	50	50	50
HR Competency	Pearson Correlation	.633**	1	.623**	.566**	.904**
	Sig. (2-tailed)	<.001		<.001	<.001	<.001
	N	50	50	50	50	50
Work safety	Pearson Correlation	.497**	.623**	1	.460**	.812**
	Sig. (2-tailed)	<.001	<.001		<.001	<.001
	N	50	50	50	50	50
Employee performance	Pearson Correlation	.390**	.566**	.460**	1	.698**

	Sig. (2-tailed)	.005	<.001	<.001		<.001
	N	50	50	50	50	50
TOTAL	Pearson Correlation	.789**	.904**	.812**	.698**	1
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	
	N	50	50	50	50	50

Table 1 shows that each instrument has a pearson correlation value that exceeds the r table value = 0.230 (N=50), and all significance values (2-tailed) correlations for all items are .000, which is lower than significance limit value 0.05. These results indicate that all statements in the question items have strong validity. Thus, the entire questionnaire is regarded legitimate for use in research.

Reliability Test

This test determines how consistent and reliable a measurement instrument is. Reliability tests measure how consistent the measurement results of the same instrument are if repeated on the same sample.

**Table 2. Reliability Test
Reliability Statistics**

Cronbach's Alpha	N of Items
.809	5

Table 2 has a Cronbach Alpha value of 0.809, which surpasses 0.600. This shows that the questionnaire has a high level of consistency and may be used for future study.

Regression Test

This test investigates the connection between one dependent variable and one or more independent variables. The regression test provides information about how strong and significant the relationship between these variables is.

**Table 3. Regression Test for Monitoring Variables
Coefficients^a**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.922	2.664		2.223	.031
	Supervision	.278	.095	.390	2.933	.005

Table 3 demonstrates that the significant value for all variables is $0.05 < 0.05$, indicating that work supervision influences the performance of employees loading and unloading ship goods at the port of Tanjungpandan, Bangka Belitung Province.

Table 4. Regression Test for HR Competency Variables

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.645	1.704		3.313	.002
	HR Competency	.298	.063	.566	4.759	<.001

Table 4 demonstrates that the significant value for all variables is $0.01 < 0.05$, indicating that human resource competency influences the performance of ship loading and unloading staff at Tanjungpandan port, Bangka Belitung Province.

Table 5. Regression Test for Work Safety Variables

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	8.380	1.497		5.597	<.001
	Work safety	.302	.084	.460	3.589	<.001

Table 5 shows that all variables have a significant value of $0.01 < 0.05$, indicating that work safety affects employee performance when loading and unloading ship goods at Tanjungpandan port in Bangka Belitung province.

Coefficient of Determination Test

This test often known as R-squared, measures how well an independent variable explains variation in the dependent variable in a regression model.

**Table 6. Determination Coefficient Test
Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.583 ^a	.340	.297	1.11155

Table 6 gives an R2 value of 0.340. This suggests that management, human resource competency, and workplace safety have a 34% impact on the performance of ship loading and unloading staff at the Tanjungpandan port in Bangka Belitung Province. However, the remaining 66% is impacted by factors beyond the scope of this study.

Discussion

Supervision has a significant influence on the performance of employees loading and unloading ship goods at the port

The study's findings demonstrate that supervision has a substantial impact on the performance of employees involved in loading and unloading ship goods at Tanjungpandan Port, Bangka Belitung Province. Effective and coordinated supervision can increase efficiency and productivity in the loading and unloading process. Having strict supervision can help ensure that each stage of the loading and unloading process runs in accordance with established operational standards. Apart from that, good supervision can also help in identifying and overcoming problems or obstacles that may arise during the process, thereby minimizing the occurrence of errors or failures in carrying out tasks. Therefore, competent supervision plays a critical role in boosting employee performance during ship cargo loading and unloading at Tanjungpandan Port.

In line with the findings (Mardalena and Asmarita, 2019), which show a positive association between the Supervision variable (X) and Performance (Y). Based on the results of the T test, it was found that the tcount value for the Supervision variable (X) was 2.169 with a significance level of 0.039, while ttable was 2.04, so $tcount > ttable = 2.169 > 2.04$ and $sig\ 0.039 < 0.05$. This indicates that monitoring the pace at which things are loaded and unloaded has a substantial impact on PT Karya Karimun Mandiri's operational performance. Other research (Suhartini *et al.*, 2023) demonstrates that simultaneous work supervision has a good and substantial influence on employee performance at Banten Port in Cilegon City.

Similarly, Ramdani *et al.* (2022) discovered that supervision (X) had a 0.355 (35.5%) positive influence on the performance (Y) of Avsec workers at Djalaludin Airport, Gorontalo. Meanwhile, the correlation test between Supervision and Employee Performance yielded a respectable result ($r = 0.596$).

Human Resource Competency Has a Significant Influence on the Performance of Employees in Loading and Unloading Ships at the Port

The research findings indicate that human resource expertise has a major impact on employee performance. Human resource competence refers to the knowledge, skills, and abilities that personnel possess when carrying out their jobs. Employees with good knowledge in the field of loading and unloading will be able to carry out their jobs successfully and efficiently. They will be quicker and more precise in identifying, resolving and overcoming various problems that may arise during the loading and unloading process. Apart from that, competent employees also tend to be more independent in their work and have the ability to adapt to changes that occur in the work environment. Therefore, increasing human resource competency through employee training and development can be an effective strategy in improving their performance in loading and unloading ship cargo activities at Tanjungpandan Port.

In line with (Suardani, 2021) which discovered that competence has a favorable and substantial impact on the performance of PT personnel. Gapura Angkasa Denpasar

branch. The results of the analysis (Callista, 2016) show that HR Competency has a simultaneous and partial effect on the performance of employees of PT Tresnamuda Sejati Surabaya Branch.

A similar study (Salsabila, 2017) found that human resource competency improves the performance of loading and unloading staff at PT Nilam Port Terminal Indonesia Tanjung Perak Surabaya. Employee performance improves when human resource capabilities improve. The data analysis results also suggest that the human resource competency variable (X) has a 24.0% effect on employee performance (Y).

Work Safety Has a Significant Influence on the Performance of Employees in Loading and Unloading Ships at the Port

The study discovered that work safety has a substantial impact on the performance of personnel loading and unloading ship commodities at Tanjungpandan Port, Bangka Belitung Province. Work safety refers to efforts to create a work environment that is safe and free from the risk of injury or accident for employees. Research shows that well-maintained work safety will positively influence employee performance (Sumarni *et al.*, 2022). Employees who feel comfortable at work will be more confident in their ability to perform successfully. In addition, guaranteed work safety can also reduce stress and anxiety levels in employees, allowing them to work better and more efficiently. Therefore, it is important for port management to pay serious attention to work safety aspects. Preventive steps such as safety training, implementing safe work procedures, maintaining work equipment, and enforcing safety rules are some examples of efforts that can be taken to improve work safety in the port environment.

In line with (Isnaeni, 2020; Nurherniya, 2022) who found that job security variables have a considerable influence on employee performance. Furthermore, the work communication variable affects employee performance with a t-count value of $6.040 > t\text{-table } 1.975$. Other research by (Bhastary and Suwardi, 2018) found that Occupational safety and health (K3) and the work environment were shown to have a considerable effect on employee job satisfaction, accounting for 68.4% of the variance in performance factors.

Another study by (Suhartini *et al.*, 2023) found that job competency and work supervision both had a favorable and substantial influence on employee performance. Similar research (Sitepu, 2019) discovered that work motivation and safety factors had a favorable and substantial influence on performance. According to the t test findings, motivation and work safety have a separate or partial influence on employee performance; work safety is somewhat more dominant in affecting performance, with a partial correlation value of 54.3%, while motivation has a partial correlation of just 26%.

CONCLUSION

The research results demonstrate that there are various elements that impact the performance of personnel engaged in the process of loading and unloading ship items at the port. These factors include supervision, human resource competency, and job security. Effective supervision and tight control over employee performance can have a positive impact on productivity and efficiency in the loading and unloading process. Apart from that, increasing training and developing human resource competencies is also key in improving employee performance. So by increasing employees' knowledge, skills and abilities, they can be more effective and efficient in completing their tasks. Apart from that, creating safe and comfortable working conditions is another important factor. Employees who feel safe and comfortable in their work environment tend to be more enthusiastic and productive. Therefore, to improve the performance of employees loading and unloading ship goods at the port, these efforts need to be carried out jointly.

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