

Evaluating Employee Performance: The Influence of Occupational Safety and Health, Motivation, Work Environment

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Abstract

This research was conducted at PT Pelindo III (Persero) Sub Regional Java Surabaya with a focus on analyzing the impact of Occupational Safety and Health (K3), work motivation, and work environment on employee performance in facing the challenges of globalization. By involving 50 employees from PT Pelindo III (Persero) Sub Regional Java Surabaya as samples, the analysis was carried out using the multiple linear regression method. The findings show that K3 has a significant effect on employee performance, where employees who work in safe and healthy conditions tend to be more productive and perform well, reducing the risk of injury or work accidents. However, work motivation and work environment do not show a significant influence on employee performance. This research provides an in-depth understanding of the factors that influence employee performance in certain work environments in the context of globalization. The implications can be used by company management to improve K3 conditions, which will improve employee performance and overall operational efficiency. In addition, this research highlights the importance of adapting to the challenges of globalization through better management of occupational safety and health. Thus, this research is not only useful for PT Pelindo III (Persero) Sub Regional Java Surabaya, but can also be a reference for other companies in efforts to improve employee welfare in the era of globalization.

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1. Introduction

In an era of increasingly rapid globalization, companies around the world are faced with various challenges that affect various operational aspects, including employee welfare and performance (Sulistyan et al., 2020). Globalization not only expands markets and business networks but also introduces new complexities in workforce management. In the midst of intense global competition, it is important to assess and manage the factors that influence employee performance effectively (Yatminiwati et al., 2021). One of the key aspects in this case is occupational safety and health (K3), motivation, and the work environment, all of which can have a significant impact on employee performance.

Employee performance is the main indicator of success in achieving company goals. Good performance not only includes quality work results but also reflects supportive and safe working conditions. Increasing employee performance is important because it can accelerate the achievement of company goals and improve overall results. According to Kasmir (2016), improving employee performance contributes to the effectiveness of the company's internal functions, which in turn supports the achievement of better results. Research by Amelia (2017) shows that there is a significant positive correlation between work safety and employee performance, confirming the importance of a safe and healthy work environment to increase productivity.

Occupational safety and health (K3) policies are very important in the context of port operations, where the loading and unloading process is a core activity that supports logistics activities. Wibowo & Wahyuningsih (2023) emphasize that K3 policies must be realized in written statements that reflect the company's vision and goals as well as commitment to K3 practices. This shows that an effective K3 policy can play a role in creating a safe work environment and supporting employee performance. Suma'mur (2015) also noted that work environmental factors and human factors can influence the risk of work accidents. Environmental factors include aspects such as K3 implementation, work equipment, workplace conditions, and work methods.

Work motivation is an important factor that influences employee performance. Motivation can be considered as an internal drive that influences an individual's enthusiasm and energy in carrying out their tasks. According to Mangkunegara (2019), employee motivation is a condition that encourages them to achieve goals, while Rivai & Basri (2017) state that motivation is a collection of attitudes and values that influence performance in the work environment. High work motivation can increase productivity and efficiency, because motivated employees tend to be more dedicated and enthusiastic in completing their tasks. Hidayat (2015) added that work motivation is a process that encourages employees to provide optimal contributions in accordance with predetermined limits, which ultimately supports the achievement of company goals. However, research shows varying results regarding the influence of motivation on performance. The research results of Dewi & Sundari (2021) and Saputra & Fernos (2023) show that work motivation positively influences employee performance. On the other hand, Siahaan & Bahri (2019) found that motivation does not always have a significant effect on employee performance. These findings indicate that although work motivation is important, other factors can also influence performance.

The work environment also plays an important role in influencing employee performance. Sihaloho & Siregar (2020) define the work environment as all elements that can influence an organization or company, either directly or indirectly. A good work environment is considered crucial for increasing employee productivity. Research by Hidayat (2015), Saputra & Fernos (2023), and Oktavia & Fernos (2023) shows that a supportive work environment can improve employee performance. A positive work environment provides a foundation for employees to develop personally and professionally, so they can reach their full potential. When employees feel comfortable and protected at work, they tend to be more focused, productive and high-performing. However, Siahaan & Bahri (2019) show that the work environment does not always have a significant effect on performance, indicating the need for further evaluation of the factors that influence performance in certain work environments.

Pelindo III (Persero) is one of the companies involved in port management in Indonesia. Pelindo is a combination of four state-owned companies that manage major ports throughout Indonesia. Pelindo's integration, which officially took place on October 1 2021, aims to strengthen the connectivity and network of the national logistics ecosystem. This integration is expected to improve coordination, standardization and operational efficiency, as well as provide significant benefits to the community and Pelindo service users. In the context of globalization, effective K3 management and a conducive work environment are becoming increasingly important to maintain employee performance and support company success.

Rapid technological developments and operational standardization require companies to adopt better K3 practices. Pelindo integration also focuses on standardizing information technology to optimize overall port operations. This includes better strategic control in network planning, reduced logistics costs, and continuous improvement of infrastructure and capacity. Therefore, companies such as PT Pelindo III (Persero) need to pay attention to factors that influence employee performance, including K3, work motivation, and work environment, in facing the challenges of globalization.

Occupational safety and health (K3) is an important effort to protect employees from risks and create a safe and healthy work atmosphere. June & Siagian (2020) underline the importance of occupational safety and health in ensuring the physical and mental well-being of employees, as well as creating a culture of well-being and justice. Effective WHS protection can reduce the number of injured or ill employees, which in turn increases staff retention and productivity.

Budhiartini (2022) added that good communication and training regarding K3 for every employee is very important to increase awareness and compliance with work safety practices.

In the context of globalization, it is important for companies to consider all factors that influence employee performance. Implementing good K3, high work motivation and a supportive work environment can help companies face the challenges of globalization better. Employees who work in a safe and healthy environment, and feel motivated and supported, tend to be more productive and committed to achieving company goals. Thus, effective evaluation and management of K3, motivation and work environment is the key to improving employee performance and operational efficiency in the era of globalization.

This research aims to evaluate the influence of occupational safety and health, motivation and work environment on employee performance at PT Pelindo III (Persero) Sub Regional Java Surabaya, in the context of globalization challenges. It is hoped that the results of this research will provide a deeper understanding of how these factors influence employee performance and how companies can optimize K3 practices, motivation and the work environment to improve performance and operational efficiency. Thus, this research is not only useful for PT Pelindo III (Persero) Sub Regional Java Surabaya, but can also be a reference for other companies in efforts to improve employee welfare and achieve company goals in the era of globalization.

2. Methods

This research uses a quantitative approach with primary data collection techniques through questionnaires. This research aims to examine the influence of occupational safety and health (K3), work motivation and work environment variables on employee performance at PT Pelabuhan Indonesia III (Persero) Sub Regional Java Surabaya. Independent Variable, namely Occupational Health and Safety (X1), Work Motivation (X2), and Work Environment (X3). Dependent Variable is Employee Performance (Y). The population in this study were all employees of PT Pelabuhan Indonesia III (Persero) Sub Regional Java Surabaya, totaling around 50 people. The sampling method used is random sampling, where each member of the population has the same opportunity to be selected as a sample. By using this technique, it is hoped that the sample taken can represent the population as a whole.

Research Instrument, to collect primary data, a questionnaire instrument was used which contained a list of statements relevant to the research variables. This questionnaire was designed to obtain information from respondents selected in the research sample. Each item in the questionnaire is measured using a Likert scale which allows assessing the respondent's level of agreement with the given statement.

Data collected from the questionnaire was analyzed using the multiple linear regression method with the help of SPSS version 25 software. The data analysis process involved several stages, including:

- a. Validity and Reliability Test: To ensure that the questionnaire instrument is valid and reliable.
- b. Classic Assumption Test: Includes normality test, heteroscedasticity test, and multicollinearity test to ensure that the data meets multiple linear regression assumptions.
- c. Multiple Linear Regression: To test the simultaneous influence of independent variables on the dependent variable

The hypotheses developed in this research include:

H1: Occupational Health and Safety has a positive and significant effect on employee performance

H2: Work motivation has a positive and significant effect on employee performance

H3: The work environment has a positive and significant effect on employee performance.

H4: Occupational Health and Safety have a dominant influence on employee performance

3. Results and Discussion

3.1. Results

Descriptive Statistical Analysis

In this research, multiple linear regression is used to predict the dependent variable (Employee Performance) based on three independent variables (Occupational Health and Safety, Work Motivation, and Work Environment). The results of descriptive statistical analysis are presented in table 1.

Table 1. Descriptive Statistics of Research Variables

Variable	Minimum	Maximum	Mean	Std. Deviation
Occupational Health and Safety	13	25	20.88	2,918
Work motivation	14	25	20.66	2,677
Work environment	13	25	20.7	2,787
Employee performance	14	25	21.26	2,456

Source: Data Processed (2024)

Table 1 provides an overview of the four variables observed in this study. For each variable, data was collected from 50 respondents. Occupational Health and Safety has a value range from 13 to 25 with a mean of 20.88 and a standard deviation of 2.918. Work Motivation is in the range of 14 to 25, with a mean of 20.66 and a standard deviation of 2.677. Work Environment shows scores between 13 and 25, with a mean of 20.70 and a standard deviation of 2.787. Employee performance has a score between 14 and 25, with an average of 21.26 and a standard deviation of 2.456. The results show that respondents tend to pay attention to responsibility and try to complete their work independently to improve performance.

Validity test

Validity tests are carried out to ensure that research instruments, such as questionnaires, correctly measure the variables in question. The validity value of each questionnaire item is shown in Table 2. All validity values are higher than r table 0.279, indicating that the questionnaire items are valid.

Table 2. Validity Test

Variable	Item	Validity Value
Occupational Health and Safety (X1)	X1.1	0.804
	X1.2	0.723
	X1.3	0.524
	X1.4	0.762
	X1.5	0.671
Work Motivation (X2)	X2.1	0.708
	X2.2	0.713
	X2.3	0.625
	X2.4	0.815
	X2.5	0.596
Work Environment (X3)	X3.1	0.692
	X3.2	0.719
	X3.3	0.792
	X3.4	0.703
	X3.5	0.686
Employee Performance (Y)	Y.1	0.703
	Y.2	0.745
	Y.3	0.629
	Y.4	0.586
	Y.5	0.669

Source: Data Processed (2024)

Reliability testing assesses the consistency of the questionnaire in measuring variables. The reliability test results presented in table 3 show that all variables have a Cronbach's Alpha value of more than 0.6, which indicates good reliability.

Table 3. Reliability Test

Variable	Cronbach's Alpha	N of items	Information
Occupational Health and Safety	0.748	5	Reliable
Work motivation	0.731	5	Reliable
Work environment	0.756	5	Reliable
Employee performance	0.689	5	Reliable

Source: Data Processed (2024)

Normality test

Normality testing is used to assess whether the data distribution shows normal characteristics or not. Data normality is when the data is distributed symmetrically around its middle value, forming a bell pattern or normal curve. Normality testing can be done in several ways, one of which is by checking the distribution of data on the diagonal line of a graph (for example, a QQ plot or histogram). In this graph, the pattern or shape of the data distribution can provide an indication of whether the data has normal characteristics or not.

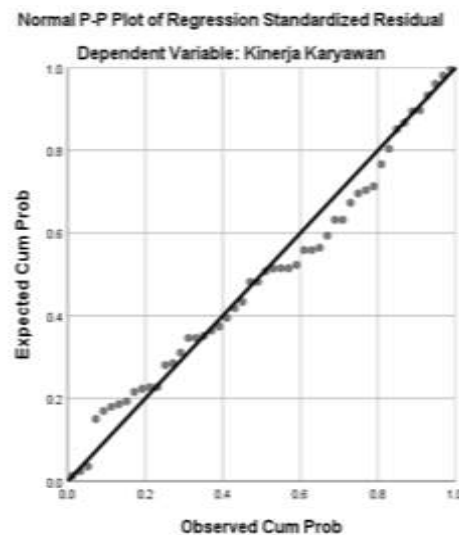


Figure 2. P-Plot Normality Test
Source: Data Processed (2024)

From this illustration, it can be concluded that the data is normally distributed, as evidenced by the distribution of the data in the diagonal line range.

Multicollinearity Test

The multicollinearity test evaluates the existence of correlation between independent variables. Table 5 shows the Tolerance and VIF values which do not show multicollinearity, with VIF values less than 5.

Table 4. Multicollinearity Test

Model	Collinearity Statistics	
	Tolerance	VIF
Healty safety work	0,630	1,587
Work motivation	0,387	2,586
Work environment	0,547	1,827

Source: Data Processed (2024)

Heteroscedasticity Test

The heteroscedasticity test was carried out to ensure uniformity of residual variance (Ghozali, 2016). The Glejser test results in Table 6 show that all significance values exceed 0.05, indicating the absence of heteroscedasticity.

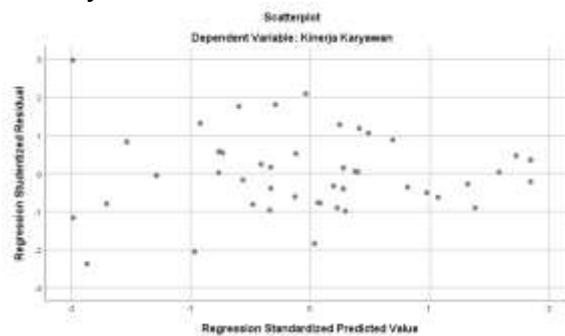


Figure 3. Heteroscedasticity Test
Source: Data Processed (2024)

Based on the visualization given in Figure 3, it can be observed that there is no clearly defined pattern in the distribution of points around the values on the Y axis. This implies that there is no significant evidence for the presence of heteroscedasticity in the evaluated regression model.

Table 5. Regression Analysis

	Model	B	t	Sig
Constant		5,989	2,472	,017
Healty safety work		,291	2,568	,014
Work motivation		,241	1,525	,134
Work environment		,204	1,599	,117

Source: Data Processed (2024)

Multiple linear regression is used when you want to make projections or predictions about how the dependent variable (criterion) will change, either up or down. Thus, it can make estimates about how the dependent variable will react to changes in the values of the independent variables. It allows researchers to make projections about possible outcomes in a given situation or to test hypotheses about relationships between variables within a statistical analysis framework. From table 5 the regression equation obtained is:

$$Y = 5.989 + 0.291 X_1 + 0.241 X_2 + 0.204 X_3 + e$$

Here, the constant of 5.989 reflects the basic value of Employee Performance (Y) when the independent variables namely Occupational Health and Safety (X1), Work Motivation (X2), and Work Environment (X3) are set at zero. This constant provides an illustration of the expected employee performance value in conditions where all independent variables do not contribute or are considered non-existent.

The regression coefficient for Occupational Health and Safety (X1) is 0.291, indicating that every one unit increase in this variable is expected to increase the Employee Performance value by 0.291 units, assuming other variables remain constant. Likewise, Work Motivation (X2) and Work Environment (X3) each have coefficients of 0.241 and 0.204, which shows the positive impact of these two variables on Employee Performance.

3.2. Discussion

Globalization has brought new challenges for companies around the world, including Pelindo Indonesia as one of the largest port companies in this country. Facing the era of globalization, companies are required to adapt and ensure employee performance remains optimal in an increasingly competitive environment. This research evaluates the influence of Occupational Health and Safety (K3), Work Motivation, and Work Environment on Employee Performance at Pelindo Indonesia, with a focus on how these factors influence performance in the context of globalization.

The Influence of Occupational Safety and Health on Employee Performance

The research results show that Occupational Health and Safety (K3) has a significant positive effect on employee performance. A coefficient of 2.568 with a significance of 0.014 < 0.05 indicates that an increase in the K3 aspect is directly related to an increase in employee performance. This underlines the importance of K3 in increasing work productivity, especially in the context of globalization challenges that require higher efficiency and effectiveness. Good K3 serves as the foundation for creating a safe and healthy work environment, which in turn improves employee well-being and, ultimately, their performance. The K3 program implemented in the company plays an important role in reducing the risk of accidents and health problems in the workplace. This is in line with research findings by Parashakti & Putriawati (2020) and Chotimah (2018) which emphasize that an effective K3 program can improve employee performance by reducing work discomfort and risks. Occupational health and safety not only prevents accidents, but also reduces stress and increases job satisfaction. This is important in facing the challenges of globalization, where workloads are often increasing and demands for efficiency are high. By providing a safe work environment, companies can increase employee satisfaction and encourage them to perform better. However, this research also shows that several aspects of the K3 program, such as lighting and air circulation, need further attention. These findings underscore the importance of continuous attention to each element of the K3 program to ensure that all factors that influence employee performance are comprehensively addressed (Siahaan & Bahri, 2019; Maghfira et al., 2023).

The Influence of Work Motivation on Employee Performance

Work Motivation (X2) in this study does not show a significant influence on employee performance. This finding is in line with the results of Siahaan & Bahri (2019), which indicate that work motivation does not always have a direct effect on performance. This may indicate that work motivation provided in the form of rewards and recognition may not be strong enough to significantly influence performance in the context of globalization. Although indicators of work motivation such as rewards have a greater impact compared to other indicators, such as self-actualization, the overall influence of work motivation on performance remains relatively small. This indicates that other factors such as OSH and work environment may have a stronger impact in this context. These results contradict research by Dewi & Sundari (2021) and Saputra & Fernos (2023) which found that work motivation has a significant influence on performance. These differences may be due to differences in the research context or methodology used. At Pelindo Indonesia, work motivation may be more influenced by other factors such as incentives or managerial support which were not measured in this research.

The Influence of the Work Environment on Employee Performance

Work Environment (X3) shows a positive influence on Employee Performance, but is not statistically significant with a t value of 1.599 and a significance of 0.117. This indicates that although a good work environment can support employee performance, its effect may not be large enough to be considered significant in this model. This finding is different from the results of research by Parashakti & Putriawati (2020) and Oktavia & Fernos (2023) which found that the work environment has a significant impact on performance. In the context of Pelindo Indonesia, a good working environment, including facilities such as good air circulation and safety in the workplace, plays an important role in creating a conducive working atmosphere. Although the results showed the highest scores on air circulation, low workplace safety scores indicated the need for improvement. Inadequate work environment quality can reduce employee efficiency and productivity, which has an impact on their performance (Saputra & Fernos, 2023).

Globalization Challenges and Their Implications

Globalization requires companies to operate with high efficiency and adapt quickly to market and technological changes. In this context, K3, work motivation and work environment play an important role in ensuring that employees can face the challenges of globalization well.

- a. Occupational Health and Safety (K3): K3 is crucial in facing the challenges of globalization. In a port industry such as Pelindo Indonesia, the risks associated with port operations and logistics are very high. An effective K3 program helps prevent accidents and improve work safety, which in turn improves employee performance. By paying attention to K3, companies not only protect employees but also reduce costs related to work accidents and lost productivity (Parashakti & Putriawati, 2020).
- b. Work Motivation: Although work motivation did not show a significant influence in this research, it is important for companies to continue to pay attention to motivation factors. In the era of globalization, recognition and rewards remain important to retain motivated and committed employees. More effective reward programs and providing space for self-actualization can help increase work motivation and, ultimately, employee performance.
- c. Work Environment: A conducive work environment supports employee performance. In facing the challenges of globalization, companies must ensure that facilities such as security and air circulation are properly considered. A poor work environment can reduce productivity and cause stress, which negatively impacts employee performance.
- d. Adaptation to Change: Globalization brings rapid changes in technology and markets. Pelindo Indonesia must be able to adapt to these changes by ensuring that K3, motivation and work environment continue to be improved. Implementing good policies and being responsive to employee needs is the key to facing the challenges of globalization effectively (Chotimah, 2018; Siahaan & Bahri, 2019).

4. Conclusion

This research shows that Occupational Health and Safety (K3) has a significant and positive influence on Employee Performance at Pelindo Indonesia. Work Motivation and Work Environment have a less significant influence in this model. In facing the challenges of globalization, companies must focus on improving K3 as a top priority to ensure employee safety and welfare. Although work motivation and work environment are also important, primary attention should be paid to factors that can increase productivity and reduce risks in a dynamic and challenging work environment. K3 is an important issue in improving employee performance, and the role of the work environment in supporting performance. Integrating these findings with the context of globalization provides deeper insight into how companies such as Pelindo Indonesia can manage these factors to face the challenges of globalization effectively.

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