

THE IMPACT OF IMPLEMENTING OCCUPATIONAL SAFETY AND HEALTH, AND WORK ENVIRONMENT ON EMPLOYEE PERFORMANCE AT PT SARANA BANDAR NASIONAL

Nury Sabrina ¹, Safira Dhia Nabilah ², Prasadja Ricardianto ³, Rehani Fitriana ⁴

^{1,2,3,4} Institute of Transportation and Logistics Trisakti Jakarta, Indonesia

Corresponding author: nurysbrn111@gmail.com

Abstract: This study aims to determine whether occupational safety, health, and the work environment can affect the employee performance at PT Sarana Bandar Nasional. As a loading and unloading service company, PT Sarana Bandar Nasional has the risk of having work accidents and also machine damage that can cause losses and also decrease employee performance. A quantitative approach with multiple linear regression is used as a method of data analysis in this study. The sampling technique used is saturated sampling using the entire population of 28 employees of PT Sarana Bandar Nasional as samples. Based on the results of the research, it can be concluded that partially the occupational safety and health variable affects employee performance. The partial test results of work environment show its influence on employee performance. This study shows that employee performance is directly affected by occupational safety and health, and the work environment.

Keywords: Occupational Safety and Health, Work Environment, Employee Performance, Loading and Unloading, Freight Forwarding

1. Introduction

PT Sarana Bandar Nasional is one of the subsidiaries of PT Pelayaran Nasional Indonesia (Persero) which main business is to provide loading and unloading services to and from ships owned by the main company and ships of other companies. These services include stevedoring, cargodoring, and receiving delivery activities. As a loading and unloading company that carries out these activities using heavy equipment, PT Sarana Bandar Nasional has the risk of having an accident that can hamper employee performance at work and can also cause losses and decreased productivity due to engine damage. Therefore, the purpose of this study is to determine whether occupational safety and health, and the work environment can affect the employee performance at PT Sarana Bandar Nasional.

Literature Review

Occupational Safety and Health

Occupational Safety and Health according to (ISO 45001, 2018) is an effort to prevent injury and illness to workers and provide a safe and healthy workplace. Occupational Health and Safety has five research dimensions, namely overseeing occupational safety and health, accident prevention, disease prevention, stress management, and health programs (Jackson et al., 2011). One of the HR management is by paying attention to the safety and health of its employees. When the company is able to manage the human resources it is looking for, the company can achieve its goals (Fajri et al., 2017). The implementation of occupational safety and health properly and correctly by the company will ensure the safety and health of employees. As a result, they feel safe and can avoid work accidents. With this situation, it is hoped that employee productivity, satisfaction, and loyalty will be created (Sinuhaji, 2019). Based on the research theory of the experts above, it can be conceptualized that occupational health and safety is an effort or company program to ensure the safety and health of workers in the work environment.

Work Environment

Individual performance results in an organization are influenced by the conditions of the work environment, either directly or indirectly. (Parashakti & Putriawati, 2020). A good work environment will ensure that employees work comfortably and safely, which is expected to increase work productivity (Hidayatullah & Tjahjawati, 2018). There are two main dimensional factors that affect the work environment (Siagian, 2014), namely the physical work environment (workplace buildings, adequate work equipment, facilities, availability of transportation facilities) and the non-physical environment (colleague relations at the same level, superior and employee relations, cooperation between employees). In addition, Henry Fayol's management theory in (Yusof et al., 2021) also emphasizes that a comfortable and fair work environment can help employees achieve their good performance. Based on the research theory of the experts above, it can be conceptualized that the work environment is everything that is around the workers that can affect them in doing their work.

Employee Performance

Performance is the desired outcome of an employee's behavior (Ivancevich et al., 2018). The level of success of a person at a certain time in doing work, compared to other factors such as work standards, targets, or criteria that have been mutually agreed upon is known as performance (Bhastary & Suwardi, 2018). There are six dimensions used to measure employee performance, namely quality, quantity, time period, cooperation between employees, cost suppression, and supervision (Kasmir, 2016). Performance is a success full role achievement or the results of individuals or groups obtained from work functions or activities carried out within a certain period of time, so that the results provided are useful for determining goals, pathways, and career development plans, especially in organizations (Indrasari, 2017). Based on the research theory of the experts above, it can be conceptualized that employee performance is the result of what has been done individually or in groups to achieve the goals that have been set.

Hypothesis

H1: Occupational Safety and Health (OSH) has a positive effect on the employee performance at PT Sarana Bandar Nasional

H2: Work Environment has a positive effect on the employee performance at PT Sarana Bandar Nasional

H3: Occupational Safety and Health (OSH), and Work Environment influence positively on the employee performance at PT Sarana Bandar Nasional.

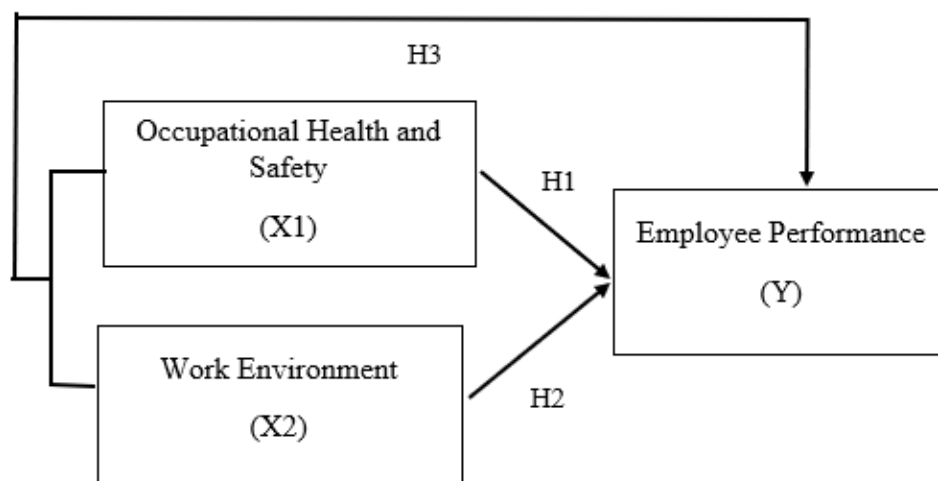


Figure 1. Conceptual Framework of Research Methods

2. Methods

This research involved all employees of PT Sarana Bandar Nasional Tanjung Priok branch totally 28 people, the sampling technique used was saturated sampling, which was 100% of the total population. The research data was obtained from the results of distributing questionnaires and interviews which were collected, processed, and developed based on the indicators of each variable that became the observation test. This study was tested using a quantitative approach by testing the validity and reliability which aims to test the normality and linearity between two variables X and one variable Y, and to find out how close the relationship between the dependent variable and the independent variable is by using a correlation test. While the analytical method used in this study using multiple linear regression (MLR) and hypothesis testing, namely the T test for partial variables and the F test for simultaneous variables to determine whether there is an effect on the dependent variable.

3. Results and Discussions

3.1 Results

3.1.1 Multiple linear regression (MLR)

3.1.1.1 The effect of occupational safety and health on employee performance

Hypothesis 1, there are variable X1 as occupational safety and health on variable Y as employee performance. The test results in the table of significance coefficient (sig) occupational health and safety as variable X1 is $0.000 < 0.05$ which means that it affects employee performance variables as variable Y.

Table 1. Results of MLR analysis on H1

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	-5,725	7,508		-0,763	0,452

	Occupational Health and Safety	1,091	0,203	0,713	5,382	0
--	--------------------------------	-------	-------	-------	-------	---

a. Dependent Variable: Employee Performance

3.1.1.2 The effect of the work environment on employee performance

Hypothesis 2, there are X2 variable as the work environment on the Y variable as the employee's performance. The results in the table of significance coefficient (sig) of the work environment as the X2 variable is $0.000 < 0.05$, which means that it affects the employee performance variable as the Y variable.

Table 2. Results of MLR analysis on H2

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	5,883	4,534		1,297	0,205
	Work Environment	0,819	0,129	0,769	6,367	0

a. Dependent Variable: Employee Performance

3.1.1.3 The Effect of occupational safety and health, and work environment on employee performance

Hypothesis 3, there are variable X1 as occupational safety and health and X2 as work environment on variable Y as employee performance. The results in the table the significance (sig) of occupational safety and health and work environment as variables X1 and X2 is $0.000 < 0.05$, which means both variables affect employee performance variables as variable Y.

Table 3. Results of MLR analysis on H3

Model	Sum of Squares	df	Mean Square	F	Sig.
-------	----------------	----	-------------	---	------

1	Regression	359,03	2	179,515	25,735	.000 ^b
	Residual	188,337	27	6,975		
	Total	547,367	29			

a. Dependent Variable: Employee Performance

b. Predictors: (Constant), Occupational Safety and Health, Work Environment

3.1.2 T-Test

3.1.2.1 T-test on the effect of occupational safety and health on employee performance

T-test on variable X1 as occupational safety and health on variable Y as employee performanceshows a significance (sig) in the coefficient table of $0.000 < 0.05$, which means it affects the Y variable.

Table 4. The results of T-test on the effect of X1 variable on Y variable

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	-5,725	7,508		-0,763	0,452
	Occupational Health and Safety	1,091	0,203	0,713	5,382	0

a. Dependent Variable: Employee Performance

3.1.2.2 T-test on the effect of work environment on employee performance

The T test of the X2 variable as a work environment on the Y variable as employee performanceshows a significance (sig) in the coefficient table of $0.000 < 0.05$, which means that it affects the Y variable.

Table 5. The results T-test on the effect of X2 variable on Y variable

Model	Unstandardized Coefficients	Standardized Coefficients	T	Sig.
-------	-----------------------------	---------------------------	---	------

		B	Std. Error	Beta		
1	(Constant)	5,883	4,534		1,297	0,205
	Work Environment	0,819	0,129	0,769	6,367	0

a. Dependent Variable: Employee Performance

3.1.3 F-Test

The F-test of the X1 variable as occupational safety and health and X2 as the work environment on the Y variable as employee performance shows a significance (sig) in the coefficient table of $0.000 < 0.05$, which means that it affects the Y variable.

Table 6. The results of the F-Test

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	359,03	2	179,515	25,735	.000 ^b
	Residual	188,337	27	6,975		
	Total	547,367	29			

a. Dependent Variable: Employee Performance

b. Predictors: (Constant), Occupational Health and Safety, Work Environment

3.1.4 Coefficient of Determination Test (R^2)

From the output of SPSS 21, it was obtained a number of 0.656 that can be represented by 65.6% of the R-square column. These results were obtained from the variables of occupational safety and health and the work environment for employee performance variables, the remaining 34.4% were obtained from other factors which were not included in the research variables.

3.2 Discussions

3.2.1 Hypothesis 1: Occupational Safety and Health (OSH) has a positive effect on the performance of employees at PT Sarana Bandar Nasional

Based on the test results obtained and described statistically using the SPSS 21 program, it can be seen that occupational safety and health has an R-Square of 0.508 or 50.8% percent with a significance of 0.000, less than 0.05 or ($0.000 < 0.05$), hence H1 is accepted. Then, it can be concluded that occupational safety and health partially affects employee performance. The results of this study are in accordance with previous findings which state that occupational safety and health has a positive influence on employee performance (Watoni, 2019). This study also supports the statement that occupational safety and health influences positively on employee performance (Dunmade et al., 2019).

3.2.2 Hypothesis 2: Work Environment has a positive effect on the employee performance at PT Sarana Bandar Nasional.

Based on the test results obtained, it can be seen that the work environment has an R Square of 0.591 or 59.1% percent with a significance of 0.000 less than 0.05 or ($0.000 < 0.05$), hence H2 is accepted. This means the work environment partially has a positive effect on employee performance. The results of this study support previous research which states that the work environment has a positive effect on employee performance (Risamasu, 2018). The results of this study are in accordance with previous findings which state that there is a positive influence between the work environment and employee performance (Imran et al., 2012).

3.2.3 Hypothesis 3: Occupational safety and health (OSH), and Work Environment have a positive effect on the employee performance at PT Sarana Bandar Nasional.

This study shows the magnitude of the influence given by variable X1 and variable X2 simultaneously on variable Y by looking at the value of the coefficient of determination or R Square which is 0.656 or becomes 65.6%. This figure means that the variables X1 and X2 simultaneously affect Y by 65.6% while the remaining 34.4% are influenced by other variables that are not included in the study. This study also supports the theory which states that there is a correlation between occupational safety and health and the work environment on employee performance (Lestari et al., 2021). The results of this study supports previous findings which state that there is a positive influence

between occupational safety and health, and the work environment on employee performance (Darmayanti & Asrida, 2021).

4. Discussion

Based on the results of the research and discussion described, it can be concluded that the occupational safety and health variable partially affect employee performance with a percentage of 50.8% and the partial test results on the work environment have an influence of 59.1% on employee performance. So, this study shows that employee performance is directly related to occupational safety and health by 65.6%.

References

- Bhastary, M. D., & Suwardi, K. (2018). Analisis Pengaruh Keselamatan dan Kesehatan Kerja (K3) dan Lingkungan Kerja terhadap Kinerja Karyawan. *Jurnal Manajemen Dan Keuangan*, 7(1), 47–60.
- Darmayanti, S. A. A. ., & Asrida, P. D. (2021). The Effect of Occupational Health Safety and Work Environment on Employee Performance in the Technical Implementation Unit of the Office of the Environment and Hygiene Mengwi District. *Arthaniti Studies*, 1(2), 24–32.
- Dunmade, E. O., Kadiri, I. B., Akindele, I. T., & Ishola, A. A. (2019). Department of Industrial Relations & Personnel Management, Faculty of Management Sciences, University of Ilorin, Nigeria. 3 & 4 Department of Public Administration, University of Ilorin, Ilorin, Nigeria. *Fountain University Osogbo Journal of Management (FUOJM)*, 4(3), 61–71.
- Fajri, K., Utami, H., & Prasetya, A. (2017). Pengaruh Program Keselamatan Dan Kesehatan Kerja (K3) Terhadap Kepuasan Kerja Dan Kinerja Karyawan (Studi Pada Karyawan PT Brantas Abipraya (Persero) Dalam Proyek Pembangunan Wisma Atlet Kemayoran). *Jurnal Administrasi Bisnis S1 Universitas Brawijaya*, 46(1), 11–19.
- Hidayatullah, A., & Tjahjawi, S. S. (2018). Pengaruh Keselamatan dan Kesehatan Kerja Terhadap Produktivitas Kerja Karyawan. *Jurnal Riset Bisnis Dan Investasi*, 3(2), 104. <https://doi.org/10.35697/jrbi.v3i2.938>
- Imran, R., Fatima, A., Zaheer, A., Yousaf, I., & Batool, I. (2012). How to boost

- employee performance: Investigating the influence of transformational leadership and work environment in a Pakistani perspective. *Middle East Journal of Scientific Research*, 11(10), 1455–1462. <https://doi.org/10.5829/idosi.mejsr.2012.11.10.741>
- Indrasari, D. M. (2017). *Kepuasan Kerja dan Kinerja Karyawan Tinjauan dari Dimensi Iklim Organisasi, Kreatifitas Individu, dan Karakteristik Pekerjaan*. Indomedia Pustaka.
- ISO 45001. (2018). *Standar Internasional Sistem Manajemen ISO 45001 : 2018 Occupational health and safety management system Requirements with guidance for use Sistem manajemen kesehatan dan keselamatan kerja Pesyaratan dan pedoman penggunaan*.
- Ivancevich, J. M., Konopaske, R., & Matteson, M. T. (2018). *Organizational Behavior and Management*. McGraw Hill Company, Inc.
- Jackson, S. E., Schuler, R. S., & Werner, S. (2011). *Managing human resources*. Salemba Empat.
- Kasmir. (2016). *Manajemen Sumber Daya Manusia (Teori dan Praktik)*. PT Rajagrafindo Persada.
- Lestari, S. D., Nafiana, P., Yuwono, & Indrabudiman, A. (2021). Effect of Occupational Health and Safety, and Work Environment on Employee Performance with Working Satisfaction as Mediation Variable. *GATR Journal of Management and Marketing Review*, 6(2), 117–124.
- Parashakti, R. D., & Putriawati. (2020). Pengaruh Keselamatan Dan Kesehatan Kerja (K3), Lingkungan Kerja Dan Beban Kerja Terhadap Kinerja Karyawan. *Jurnal Ilmu Manajemen Terapan*, 1(3), 290–304. <https://doi.org/10.31933/jimt.v1i3.113>
- Risamasu, P. I. M. (2018). Analisis Pengaruh Lingkungan Kerja, Dan Beban Kerja Terhadap Kinerja Karyawan Melalui Stress Kerja Pada Karyawan PT Pelabuhan Indonesia IV (Persero) Cabang Merauke. *Musamus Journal of Business & Management*, 61–74.
- Siagian, S. P. (2014). *Manajemen Sumber Daya Manusia*. Bumi Aksara.
- Sinuhaji, E. (2019). *Manajemen Pengaruh Keselamatan dan Kesehatan Kerja (K3)*

terhadap Produktivitas Kerja Karyawan. *Jurnal Ilman : Jurnal Ilmu*, 7(2), 11–15.

Watoni, M. H. (2019). the Effect of Occupational Safety and Health and Work Discipline on Employee Performance in the Environmental Services of Yogyakarta City. *International Journal of Economics, Business and Accounting Research (IJEBAR)*, 3(04), 320–329. <https://doi.org/10.29040/ijebar.v3i04.703>

Yusof, J., Adibah, F., Senin, M. S., Binti, H., Hassan, H., & Norazmi, M. (2021). Elements of Work Environment In The Construct Of Special Education Teacher Workload In Malaysia Turkish Journal of Computer and Mathematics Education Research Article. *Turkish Journal of Computer and Mathematics Education*, 12(11), 5284–5288.