

# Analysis of Health and Safety (K3), Working Environment and Employee Performance at the Container Depot

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## ABSTRACT

*This company focuses on operating and managing container depots that provide empty container handling services. The purpose of this study was to identify and analyze the effect of safety and health and work environment on employee performance at this container depot. The method used in this study is a quantitative method, involving 30 respondents using a saturated sampling technique and using a questionnaire measuring instrument (Likert scale) and library research. As well as data analysis using SPSS Version 27 with study methods multiple linear regression analysis, correlation coefficient, coefficient of determination, hypothesis testing using T test and F test. The results of the analysis show that there is a significant positive influence between safety and occupational health and work environment on employee performance with the existence of a multiple linear line equation with a value of  $Y = 1.860 + 0.367X1 + 0.599X1$ . The results of hypothesis testing obtained by  $t_{count} X1 8.523$  and  $X2 10.160 > t_{table} 2.048$ . While the simultaneous test  $F_{count} 57.638 > F_{table} 3.35$ . Based on the results of the correlation analysis, there is a positive and strong influence of 81% and 19% is influenced by other factors that are not included in this study.*

## 1. INTRODUCTION

Transportation plays an important role in Indonesia where Indonesia is a maritime country where most of its territory is waters. In a country where most of its territory is waters like Indonesia, sea transportation functions to connect one island to another in the distribution of goods. Transportation is the process of moving goods or people from one place to another using equipment or vehicles. There are many types of transportation available, from land transportation, air transportation and sea transportation. Nowadays, sea transportation is the choice of many people, especially for shipping goods. The choice of sea transportation is because sea transportation has a large volume of transportation so that in one trip it can transport a lot of goods. Apart from that, sea transportation also offers goods delivery services at more affordable prices so that it can reduce shipping costs. One way to send goods using sea transportation is via containers. According to Regulation of the Minister of Transportation of the Republic of Indonesia Number PM 53 of 2018 Concerning the Eligibility of Containers and Verified Gross Weight of Containers, the container itself is a piece of transportation equipment in the shape of a box and is made of materials that meet the requirements, are durable and can be used repeatedly, which has a pair of corners and is specifically designed to facilitate the transportation of goods with a pair of corners. In using containers to deliver goods, container depots play an important role for storing or stacking these containers to reduce waiting time when moving containers from the port. A container depot is a location inside or outside the Port Work Environment Area (DLKr) that serves as a location for storage, stacking, cleaning/washing, maintenance and repair of containers, as well as for loading (stuffing), unloading (stripping), and other tasks that support the efficient handling of full and/or empty containers. This to the activities of individuals within an organization to develop, promote, and execute meaningful ideas. definition is taken from the Regulation of the Minister of Transportation Number PM 83 of 2016 concerning the Implementation and Operation of a Container Depo.

Employee performance is a crucial component of every business because it can influence whether a firm advances or stagnates. A positive effect on the company will result from a good employee's

performance, and the opposite will be true if the employee's performance is poor. The work environment has a significant role in improving employee performance because if the work environment makes employees feel comfortable and safe, it will result in good performance from their employees. In managing the container depot business, the container depot located at the Cakung KBN in providing facilities and infrastructure for employees is still inadequate. Such as limited office space, messy document storage making it difficult for employees to find the documents, incomplete ATK and printers in handling container loading and unloading documents, dirty office space, inadequate prayer rooms, unclean toilets and a lot of noise comes from loading and unloading aids that are in operation and to create a safe and comfortable work environment for employees also cannot be separated from the security and work safety of the employees themselves. The container depot located at the Cakung KBN is a provider of container loading and unloading services where the scope of work of its employees is side by side with loading and unloading auxiliary equipment. In its operational activities, namely the process of loading and unloading containers, this container depot is also still lacking in the provision of PPE (Personal Protective Equipment) such as safety vests which function so that when employees are in the stacking yard they can be seen by operators who operate loading and unloading aids and safety helmets which function to protect employees from impacts or falling objects while in the stacking field area. Even though in the Law of the Republic of Indonesia Number 1 of 1970 concerning Work Safety Article 3 Paragraph 1 stipulates one of the requirements for work safety, namely providing workers with self-protection equipment. In addition, it is still found that there are workers who lack self-awareness regarding their own safety by ignoring the importance of using Personal Protective Equipment (PPE) in carrying out activities in a work environment that has a high risk of work accidents. This is due to the lack of strict socialization regarding the importance of understanding and implementing occupational safety and health to protect oneself from the risk of accidents.

(Lewaherilla et al., 2022, p. 10). stated that occupational safety and health is creating an atmosphere and work environment that can guarantee the health and safety of employees so that work in the work environment can be carried out properly. (Candrianto, 2020, p. 9) Employee performance is a crucial component of every business because it can influence whether a firm advances or stagnates. A positive effect on the company will result from a good employee's performance, and the opposite will be true if the employee's performance is poor. (D. S. Widodo, 2021)states that occupational safety and health is an effort to create a safe working atmosphere from risks of accidents both physically, mentally and emotionally so as to provide protection for the workforce. (Simbolon & Nuridin, 2017) the physiological, physical, and psychological circumstances of the workforce brought on by the work environment that the corporation provides are referred to as occupational safety and health. (June & Siagian, 2020) suggests that occupational safety and health is an action that creates safe working conditions, prevents oneself from physical and mental problems with guidance, training and controls the execution of work. (W. Widodo & Prabowo, 2018) states that indicators of occupational safety and health are work protective equipment used to protect and minimize work-related illnesses, safe workspaces which have a distance between employees and operating machines, use of work equipment that is used to facilitate work and avoid the risk of being hit by machines, a healthy work space that has ample space for movement and also has ventilation so that air quality is maintained in the work area and lighting in the work space is required to have good lighting to make it easier for workers to do work.

(Bahri, 2018, p. 40) explains that the work environment includes all the equipment and supplies used, the surroundings where a person works, the work processes, and the work arrangements, both individually and collectively. (Rahmawati et al., 2020, p. 6) The surroundings of workers, such as cleanliness, music, lighting, and other factors, might influence how well they complete the job assigned. (Ariani et al., 2020) The work environment is defined as a set of internal, organizational-specific elements that influence how well human resource management functions or tasks are carried out. (Nabawi, 2019) Everything pertaining to the psychological and physical elements that will either directly or indirectly have an impact on employees is referred to as the work environment. (Bahri, 2018, p. 43) suggests that there are two different types of work environments: physical and non-physical. Physical work environments are defined as those surrounding employees in the workplace that have a direct or indirect impact. Non-physical work environments are all circumstances that arise related to work relationships, including relationships with superiors, relationships between coworkers, and relationships with subordinates. (Setiawan & Khurosani, 2018) which are included in the work environment indicators

are coloring, lighting, air, noise, space for movement, security, cleanliness, work structure, workload, collaboration between groups, leader attention, smooth communication.

(Sudaryo et al., 2018, p. 93) According to this, an employee's performance is the outcome of his or her capacity to complete work in a manner consistent with the tasks assigned to him or her, both in terms of quality and quantity. (Falah & Ayuningtias, 2020) Employee performance is the end result of the employee's work, regardless of how high or low the results of a person's job are, or whether the results are viewed as good or bad. (Muis et al., 2018) Employee performance is the outcome of a person's efforts in completing the responsibilities that have been delegated to him and is dependent on his talent, experience, earnestness, and diligence. (Yanuari, 2019) indicates that depending on previously defined terms or agreements, performance is the outcome of a process that is referred to and evaluated over a specific time period. According to (Lie & Siagian, 2018) Individual (employee) performance is gauged using five factors: quality, quantity, timeliness, effectiveness, and independence.

## 2. METHOD

This This research is a quantitative research. According to (Paramita et al., 2021, p. 11) quantitative research is research where the data is expressed in numbers rather than words or pictures. In this research, the author tries to analyze the influence of each variable, which later this research will analyze the influence of Occupational Safety & Health (K3) and the work environment on employee performance.

(Sugiyono, 2015, p. 80) explains that a population is the entirety of an analytical group that has certain characteristics to be studied and estimated by researchers. Based on the opinions regarding the population above, the population in this study that the author used as research objects were 30 employees at the container depot.(Sugiyono, 2015, p. 81) The sample is described as a subset of the population's size and makeup.

The sampling method utilised in this study is a saturated sample based on the number of population taken. According to (Sugiyono, 2015, p. 85) Using the entire population as samples is a sampling approach known as saturation sampling. This is due to the fact that the sample size for this study was 30 participants, which is little given the population size.

What kind of sample in this study? Please explain

Multiple linear regression analysis is the data analysis method used to handle and analyse the collected data. To assess how closely the independent factors affect the dependent variable collectively, several correlation coefficients are used. When evaluating a hypothesis, the t test and f test are used. The coefficient of determination shows the percentage of influence that the independent variable has on the dependent variable.

## 3. RESULTS AND DISCUSSION

### Antecedents of Innovative Work Behavior (IWB)

From the results of the regression testing, results were obtained where the Constant Value had a positive value of 1,860. Employee performance would still have a set value of 1,860 units even if workplace safety, health, and environment were all zero. The value of  $X_1 = 0.367$ . This indicates that the direction of the regression coefficient for workplace safety and health is positive. This means that if occupational safety and health improves, employee performance will also increase by 0.367 units. The value of  $X_2 = 0.599$ . This indicates a favourable direction for the work environment regression coefficient. This implies that employee performance will rise by 0.599 units if the workplace environment improves.

Based on the following table, the regression equation model is obtained as follows:

$$Y = 1.860 + 0.367X_1 + 0.599X_2$$

**Tabel 1** Multiple Linear Regression Analysis

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.860	4.453		.418	.680
	Keselamatan dan Kesehatan Kerja (X <sub>1</sub> )	.367	.200	.316	1.833	.078
	Lingkungan Kerja (X <sub>2</sub> )	.599	.169	.611	3.547	.001

a. Dependent Variable: Kinerja Karyawan (Y)

Source: Processed by the author using SPSS version 27

Based on the table below, it can be explained that the Multiple Correlation Coefficient is that the correlation coefficient value between Occupational Safety and Health (X<sub>1</sub>) and Employee Performance (Y) is 0.850, which shows a very strong influence based on the correlation coefficient interpretation table which is in the interval (0.80 – 100) and the correlation coefficient value between the Work Environment (X<sub>2</sub>) and Employee Performance (Y) is 0.887, which shows a very strong influence based on the correlation coefficient interpretation table which is in the interval (0.80 – 100).

**Tabel 2** Multiple Correlation Coefficient

Correlations				
		Keselamatan dan Kesehatan Kerja (X <sub>1</sub> )	Lingkungan Kerja (X <sub>2</sub> )	Kinerja Karyawan (Y)
Keselamatan dan Kesehatan Kerja (X <sub>1</sub> )	Pearson Correlation	1	.874**	.850**
	Sig. (2-tailed)		.000	.000
	N	30	30	30
Lingkungan Kerja (X <sub>2</sub> )	Pearson Correlation	.874**	1	.887**
	Sig. (2-tailed)	.000		.000
	N	30	30	30
Kinerja Karyawan (Y)	Pearson Correlation	.850**	.887**	1
	Sig. (2-tailed)	.000	.000	
	N	30	30	30

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Source: Processed by the author using SPSS version 27

Based on the table below, it can be explained that the Coefficient of Determination shows that it is known that the contribution of the variables of occupational safety and health and work environment to employee performance has an influence contribution of 79.6%.

**Tabel 2.** Coefficient of Determination

Model Summary <sup>b</sup>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.900 <sup>a</sup>	.810	.796	2.270	1.466
a. Predictors: (Constant), Lingkungan Kerja , Keselamatan dan Kesehatan Kerja					
b. Dependent Variable: Kinerja Karyawan					

Source: Processed by the author using SPSS version 27

Based on the table below, Hypothesis Testing can be explained

a. T test of occupational safety and health variables (X1) on employee performance (Y)

**Tabel 3.** X1 variable t test against Y

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.585	5.277		.111	.913
	Keselamatan dan Kesehatan Kerja (X <sub>1</sub> )	.987	.116	.850	8.523	.000
a. Dependent Variable: Kinerja Karyawan (Y)						

Source: Processed by the author using SPSS version 27

From this data, the following results are obtained:

1)  $0.000 < 0.05$  then from these results Ho is rejected and Ha is accepted.

2)  $8.523 > 2.048$  so from these results Ho is rejected and Ha is accepted.

a. According to the aforementioned findings, variable X1 (occupational safety and health) has a considerable impact on variable Y (employee performance). Thus, the first hypothesis—that variable X1 (occupational safety and health) has a considerable positive impact on variable Y (employee performance)—is supported. *Work environment variable t test (X2) on employee performance (Y)*

**Tabel 4.** X2 variable t test against Y

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.377	3.862		1.651	.110
	Lingkungan Kerja (X <sub>2</sub> )	.869	.086	.887	10.160	.000
a. Dependent Variable: Kinerja Karyawan (Y)						

Source: Processed by the author using SPSS version 27

From this data, the following results are obtained:

1)  $0.000 < 0.05$  malcal from the result Ho is rejected. It is accepted.

2)  $10.160 > 2.048$  malcal from the hasil Ho is rejected Hal is accepted.

Based on the results above, it can be concluded that there is a significant influence between variable X2 (work environment) on variable Y (employee performance). Thus, the second hypothesis that there is a significant positive influence by variable X2 (work environment) on variable Y (employee performance) is proven.

- b. Test f variables of occupational safety and health (X1) and work environment (X2) on employee performance (Y)

**Tabel 5.** Test the f variables X1 and X2 against Y

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	593.871	2	296.935	57.638	.000 <sup>b</sup>
	Residual	139.096	27	5.152		
	Total	732.967	29			
a. Dependent Variable: Kinerja Karyawan (Y)						
b. Predictors: (Constant), Lingkungan Kerja (X <sub>2</sub> ), Keselamatan dan Kesehatan Kerja (X <sub>1</sub> )						

Source: Processed by the author using SPSS version 27

From this data, the following results are obtained:

- 1)  $0.000 < 0.05$ , the result is that  $H_0$  is rejected and accepted.
- 2)  $57.638 > 3.35$ , the result is that  $H_0$  is rejected and it is accepted.

So it can be said that occupational safety and health (X1) and the work environment (X2) simultaneously have a significant and positive influence on employee performance (Y) amounting to  $0.000 < 0.05$  in the value of  $F_{count} = 57.638 > F_{tabel} = 3.35$ .

#### 4. CONCLUSION

The Based on the recapitulation results of the Occupational Safety and Health variable (X1), respondents stated "the distance between my work space and the loading area is sufficient" was the highest statement with an average value of 4.70. From the results of the t test, the total positive influence on Occupational Safety and Health (X1) on Employee Performance (Y) at the container depot, with a t count of  $8.523 > a$  total of 2.048 and a significant amount of  $0.000 < 0.05$ , which means  $H_0$  is rejected. accepted, the final hypothesis which reads is  $H_1$ , which is the influence of Occupational Safety and Health factors on Employee Performance. It was also seen from the value of the correlation coefficient for the influence of Occupational Safety and Health (X1) on Employee Performance (Y) of 0.850. Occupational Safety and Health can influence employee performance because if occupational safety and health is implemented by the company it can encourage employees to work optimally because the implementation of Occupational Safety and Health can prevent employees from the risk of work-related accidents and can provide knowledge regarding the use of tools. and the right machines so that employees work comfortably. The results of this research are in line with previous research conducted by (Winarno & Andjarwati, 2019) which shows that occupational safety and health variables have a significant effect on employee performance. However, based on the recapitulation results of the Occupational Safety and Health variable (X1), respondents also stated that "The company has provided personal protective equipment such as helmets, vests, boots, etc. which can protect against work accidents" was the lowest statement with an average value of 4.30. According to the author, it is best for companies to equip personal protective equipment so that employees feel safe when carrying out their work so that the implementation of Occupational Safety and Health in the company can be carried out optimally and to avoid the risk of work-related accidents considering that the employees' work environment is connected to heavy equipment. for loading and unloading containers.

Based on the results of the recapitulation of the Work Environment variable (X2), respondents stated "Noise in the work space can affect my focus when doing work" being the highest statement with

an average value of 4.60. From the results of the t test, the total positive influence was found to have a significant positive influence on the work environment (X2) on Employee Performance (Y) at the container depot, with a t count of 10.160 > t count of 2.048 and a significant value of 0.000 < 0.05, which means that Ho was rejected and Ha was accepted. Malkal's hypothesis which reads is H2, which is the internal influence of the work environment on employee performance. It was also seen from the value of the work environment altal correlation coefficient (X2) on Employee Performance (Y) of 0.887. The work environment can affect employee performance because if the work environment provided by the company does not have complete facilities, it will make employees uncomfortable at work so that it can affect employee performance. The results of this study are in line with previous research conducted by (Chasanah et al., 2020) which shows that the Work Environment variable has a significant effect on Employee Performance. However, based on the recapitulation results from the Work Environment variable (X1), respondents also stated that "Supporting facilities such as toilets, prayer rooms, etc. are provided by clean companies", "Noise of vehicles in the loading and unloading yard can affect my focus when doing work" and "My relationships with other employees help me at work" is the lowest statement with an average score of 4.43. According to the author, the company should provide supporting facilities such as adequate toilets, prayer rooms, canteens, etc. for employees, including a conducive workspace so that employees are comfortable while doing their jobs. In addition, judging from the low number of statements "My relationship with other employees helps in work", companies are advised to hold activities that can strengthen relations between employees.

Based on the results of the recapitulation of the Employee Performance variable (Y), respondents stated "I always do the tasks according to what the company wants" and "I have the ability so that the work can meet the target" being the highest statement with an average score of 4.60. From the results of the f test, where Fcount is 57.638 > Ftable 3.35 and a significance of 0.000 < 0.05, which means Ho is rejected Ha is accepted, the hypothesis that reads is H3, namely the influence of Occupational Safety and Health and Work Environment Health on Employee Performance. Also seen from the multiple correlation coefficient value  $R = 0.900$ , it means that the magnitude of the influence of Occupational Safety and Health (X1) and the Work Environment (X2) on Employee Performance (Y) at the container depot is 0.900, meaning it has a strong, unidirectional and positive influence, while the contribution From the factors of Occupational Safety and Health (X1) in the Work Environment (X2) there are 81% which have a significant meaning in Employee Performance (Y) in container depots, while the remaining 19% are influences from traffic factors. Employee performance is the work result achieved by an employee in carrying out his work according to the responsibilities he has been given. Because employee performance is influenced by a number of factors, including attitude and mentality, education, skills, leadership management, income level, salary and health, social security, work environment, facilities and infrastructure, technology, and opportunity for achievement, occupational safety and health and the work environment can have an impact on employee performance. The results of this research are in line with previous research conducted by (Parashakti & Putriawati, 2020) This demonstrates the considerable impact on employee performance of the factors Occupational Safety and Health and the Work Environment. However, based on the recapitulation results of the Employee Performance variable (Y), respondents also stated that "I have the ability to do my work effectively and efficiently", "I always arrive on time", "I am able to determine work priorities" and "I use supporting equipment such as computers and printers to complete work" was the lowest statement with an average score of 4.50. According to the author, companies should provide training for employees so that employees are able to improve their performance and minimize malmanagement so that nothing is hampered and the process is completed effectively and efficiently.

The first hypothesis is accepted based on the findings of the research that has been done, which led to the conclusion in this study that occupational safety and health (X1) has a positive and significant effect on employee performance (Y). The second hypothesis is supported since the workplace (X2) has a favourable and significant impact on employee performance (Y). The third hypothesis is therefore accepted because both work environment (X2) and occupational safety and health (X1) have a positive and significant impact on employee performance (Y).

**REFERENCES**

- Ariani, D. R., Ratnasari, S. L., & Tanjung, R. (2020). Pengaruh Motivasi, Lingkungan Kerja, dan Pengalaman Kerja Terhadap Kinerja Karyawan PT. Superbox Industries. 9.
- Bahri, M. S. (2018). Pengaruh Kepemimpinan, Lingkungan Kerja, Budaya Organisasi dan Motivasi Terhadap Kepuasan Kerja yang Berimplikasi terhadap Kinerja Dosen. CV. Jakad Publishing Surabaya.
- Candrianto. (2020). Pengenalan Keselamatan dan Kesehatan Kerja. CV. Literasi Nusantara Abadi.
- Chasanah, N. U., Nurhajati, & Pardiman. (2020). Pengaruh Lingkungan Kerja, Kesehatan Kerja, Dan Keselamatan Kerja Terhadap Kinerja Karyawan Pada Perusahaan Daerah Air Minum Kota Malang. E-Jurnal Riset Manajemen.
- Falah, A. M., & Ayuningtias, H. G. (2020). Pengaruh Motivasi Kerja Terhadap Kinerja Pegawai PT. XYZ. Jurnal Mitra Manajemen (JMM Online), 4(6), 990–1001.
- June, S., & Siagian, M. (2020). Pengaruh Keselamatan Dan Kesehatan Kerja Dan Lingkungan Kerja Terhadap Kinerja Karyawan Pt Lautan Lestari Shipyard. E-Jurnal Apresiasi Ekonomi, 8.
- Lewaherilla, N. C., Sriagustini, I., Kusmindari, C. D., Setiawan, H., Puspanthani, M. E., Saptaputra, S. K., Wahyurianto, Y., Della, R. H., Akbar, H., Pramana, C., Pasmawati, Y., Erick, Y., Dewadi, F. M., & Widiastuti, F. (2022). Keselamatan dan Kesehatan Kerja. CV. Media Sains Indonesia.
- Lie, T. F., & Siagian, H. (2018). Pengaruh Kepuasan Kerja Terhadap Kinerja Karyawan Melalui Motivasi Kerja pada CV. Union Event Planner. Agora, 6(1).
- Muis, M. R., Jufrizen, J., & Fahmi, M. (2018). Pengaruh Budaya Organisasi Dan Komitmen Organisasi Terhadap Kinerja Karyawan. Jurnal Ekonomi & Ekonomi Syariah.
- Nabawi, R. (2019). Pengaruh Lingkungan Kerja, Kepuasan Kerja dan Beban Kerja Terhadap Kinerja Pegawai. Jurnal Ilmiah Magister Manajemen, 2.
- Paramita, R. W. D., Rizal, N., & Sulistyan, R. B. (2021). Metode Penelitian Kuantitatif (3rd ed.). Widya Gama Press.
- 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).
- Rahmawati, I., Sa'adah, L., & Chabibi, M. N. (2020). Karakteristik Individu dan Lingkungan Kerja serta Pengaruhnya Terhadap Kepuasan Kerja Karyawan. Universitas KH. A Wahab Hasbullah.
- Setiawan, I., & Khurosani, A. (2018). Kerja Terhadap Kinerja Karyawan ( Studi Empirik Karyawan PT . Karakatau Posco di Cilegon Banten ) Pendahuluan Rumusan Masalah Tujuan Penelitian. Jurnal Riset Bisnis Dan Manajemen Tirtayasa (JRBMT), 2(1), 1–19.
- Simbolon, J., & Nuridin. (2017). Pengaruh K3 dan Kingkungan Kerja Terhadap Kinerja Karyawan PT. Dwi Lestari Nusantara. Jurnal Manajemen Bisnis Krisnadwipayana, 5(2).
- Sudaryo, Y., Ariwibowo, A., & Sofiati, N. A. (2018). Manajemen Sumber Daya Manusia, Kompensasi Tidak Langsung dan Lingkungan Kerja Fisik. ANDI.
- Sugiyono. (2015). Metode Penelitian Kuantitatif, Kualitatif dan R&D. Alfabeta.
- Widodo, D. S. (2021). Keselamatan dan Kesehatan Kerja : Manajemen dan Implementasi K3 di Tempat Kerja. Penebar Media Pustaka.
- Widodo, W., & Prabowo, C. H. (2018). Pengaruh Kesehatan Dan Keselamatan Kerja ( K3 ) Dan Lingkungan Kerja Terhadap Produktivitas Kerja Karyawan Pt Rickstar Indonesia. Jurnal Manajemen Bisnis Krisnadwipayana, 6(3). <https://doi.org/10.35137/jmbk.v6i3.224>
- Winarno, A. F., & Andjarwati, T. (2019). Pengaruh Keselamatan , Dan Kesehatan Kerja, Lingkungan Kerja, Semangat Kerja, Dan Stress Kerja Terhadap Kinerja Karyawan PT. Maspion I Pada Divisi Maxim Departemen Spray Coating Sidoarjo. Jurnal Ekonomi Manajemen, 4.



Yanuari, Y. (2019). Analisis Pengaruh Motivasi Kerja dan Lingkungan Kerja Terhadap Kinerja Karyawan. *Journal of Business & Entrepreneurship*.