

The Effect of Occupational Health Safety (K3) and Work Environment on Employee Performance

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Abstract

The purpose of this study is to determine whether the variables of occupational health safety (K3) and work environment affect the performance of PT employees. Arteria Daya Mulia Cirebon. The population in this study was 75 karyclouds. The sampling technique in this study used saturated samples. The sampel collected for this study was 75 respondents consisting of permanent employees. This type of research uses quantitative techniques with an associative approach. In this research, data was obtained from research instruments using questionnaires and processed using IBM SPSS 25 software. A value of 1 indicates strongly disagreeing and a value of 5 indicates strongly agreeing. Based on the multiple regression analysis values obtained results of $216,385 > 3.12$, it was concluded that occupational health safety (K3) and the work environment had an influence together (simultaneously) positively and significantly on the performance of net B production employees at PT. Arteria Daya Mulia Cirebon by 85.3%. The remaining 14.7% was influenced by other factors outside the study.

Keywords: *Occupational Health Safety, Work Environment, Performance*

INTRODUCTION

Human Resources (HR) is very important in the company. The role of human resources in the company is as the main driver of all company activities. When human resources are adequate, it will provide optimal performance for the company. Mangkunegara (2017) states that Performance is the result of work in quality and quantity achieved by an employee in carrying out his duties in accordance with the responsibilities given to him. In addition, Busro (2018) also states that performance is the result of work that can be achieved by employees both individuals and groups in an organization, in accordance with the authority and responsibility given by the organization in an effort to achieve the vision, mission, and goals of the organization concerned by including ability, perseverance, independence, the ability to overcome problems according to the legally given time limit, not violates the law and is in accordance with morals and ethics.

Pt. PT. Arteria Daya Mulia (ARIDA) is a company that produces fishing nets, yarns, mines and nylon yarns with nylon fiber as the raw material. Based on data from the last 3 years, the realization of PT. ARIDA did not achieve the production targets that had been set for three consecutive years. In 2019, the realization of the target was 63% then 58% in 2020 and 72.91% in 2021. Meanwhile, data on the performance appraisal of permanent employees of the B net production section at PT. ARIDA in 2021 showed that the dominant employee performance received a moderate predicate, 2 employees in February received good grades, and 13 employees received less prodicate throughout 2021. This shows that PT. ARIDA has not achieved maximum performance, thus PT. ARIDA needs to improve the performance of its employees.

Occupational safety and health are an effort made by the company to provide protection to workers from the dangers of illness, accidents and losses due to doing work, so that workers can work safely. According to Megisson in Supomo and Nurhayati (2018) Work safety shows that safe or secure conditions are aspects of the work environment that can cause fire, fear, cut electricity, fractures or other accidents so that an employee is disabled. Meanwhile, occupational health leads to a condition that is free from physical, mental, emotional and pain disorders caused by the sick work environment. Occupational health and safety are important for companies, because the impact of work accidents or diseases caused by labor relations not only harms employees, but also the company. Previous studies have shown that the resulting Rsquare value is 0.562 or 56.20%. This figure explains that employee performance is influenced by occupational safety, occupational health and work involvement by 56.20%, while the remaining 43.80% is influenced by other factors or variables that were not studied in this study. This result means a significance value of less than 0.05 (<0.05 or 5%) which states that occupational health safety and job satisfaction simultaneously affect employee performance declared accepted or proven (Rantung, Dotulong, and Lumintang, 2021). Meanwhile, Ritonga, Simatupang, and Pasaribu (2022) concluded that the testcoefficient of R^2 is 0.786. This means that employee performance can be explained by competence, work environment and occupational health safety (K3) of 78.6% while another 21.4% can be explained by other factors.

A work environment is a place for employees to do their job. According to Afandi (2021) The work environment is something that exists in the environment of workers that can influence themselves in carrying out tasks such as temperature, humidity, ventilation, lighting, noise, cleanliness of the workplace and adequate work equipment. While Nitisemito (2019) states that: "The work environment is everything that exists around the workers and that can influence him in carrying out the tasks charged". Previous research shows that the work environment has a significant influence on employee productivity when their number is $4,019 > t$ The table in 1984 with a significant $0.000 < 0.05$, partial work discipline had a positive and significant impact on employee performance when $4.011 > 1.984$ with a significant value of $0.000 < 0.05$, the krja

environment and work discipline had a positive and significant impact on performance employees with a Fcount value of $20.529 > 3.07$ with a value of $0.000 < 0.05$ (Laksono, 2021). Meanwhile, Nabawi (2019) concluded that the influence of the work environment, job satisfaction and workload combined on performance was 45.6%. The remaining 54.4 (100%-45.6%) was influenced by other factors. The purpose of this study is to analyze the effect of occupational health safety (K3) and the work environment partially and simultaneously on employee performance at PT. Arteria Daya Mulia (Arida) Cirebon City.

Previous studies on occupational safety assessed that improving occupational health safety (K3) will improve employee performance (Simbolon & Nuridin, 2017). Because all workers are guaranteed health financing, workers are very important assets that must be considered, workers at work are given sufficient work equipment, management and workers are very concerned about safety aspects at work, goods are stored according to their place, workers are authorized to carry out their work, risk of fatigue. The work environment has a positive impact on employee performance. A comfortable work environment causes the level of concentration of employees in work to increase, and such conditions cause the level of work productivity of employees to increase. The work environment has a very close relationship with employee performance, the achievement motives that need to be owned by employees must be grown from within themselves and from the work environment, because the achievement motives that are grown from within themselves will form a strength of self and if the work environment situation supports it, the achievement of performance will be easier. The problem of the work environment is not only a concern for the management but also for every worker. Employees must have a high level of occupational health safety in performing their work. The term performance comes from *job* performance or actual performance (*work performance or actual* achievement achieved by a person), or also work results in quality and quantity to be achieved by an employee in carrying out his duties in accordance with the responsibilities given to him. The work environment is something that is around the workers and that can influence him in carrying out the tasks charged. The work environment is a very important component when employees carry out work activities. The hypothesis in this study is [H₁]: Occupational health safety (K3) affects the performance of employees of PT Arteria Daya Mulia Cirebon [H₂]: Lwork environment affects the performance of employees of PT Arteria Daya Mulia Cirebon [H₃]: Occupational health safety (K3) and work environment simultaneously affect the performance of employees of PT Arteria Daya Mulia Cirebon.

RESEARCH METHODS

The type of research used is quantitative methods. The sampling system uses saturated sampling, namely all employees of the B net production department of PT. Arteria Daya Mulia (ARIDA) which totaled 75 respondents. Data collection techniques use field studies, interviews/ interviews, questionnaires and literature studies. The analysis carried out was in the form of multiple linear regression analysis using SPSS media.

RESULT AND DISCUSSION

Regression Analysis Results

Multiple linear analysis is used to determine the magnitude of the influence of several independent variables simultaneously on the dependent variables. In this study are the variables of Occupational Health Safety (K3) (X₁) and Work Environment (X₂) to Employee Performance (Y).

Table 1. 1 Multiple linear regression analysis

Variable	Unstandardized Coefficients		Standardized Coefficients Beta	T	Sig
	B	Std. Error			
(Constan)	7.968	2.698		2.954	.004
Occupational Health Safety (K3)	.430	.059	.476	7.248	.000
Work Environment	.457	.058	.518	7.877	.000

Source: processed researcher data, 2022

From table 1 can be made a model of the multiple regression equation as follows:

$$Y = 2.685 + 0.164 X_1 + 0.260 X_2$$

Based on the multiple linear regression equation, it shows that:

1. The constant value is 7.968, meaning that if the Occupational Health Safety (K3) (X1) and Work Environment (X2) value is 0, then the Employee Performance (Y) value is 7.968.
2. Based on the equation above, it shows that if Occupational Health Safety (K3) is added by one unit, Employee Performance will increase by 0.430 at a constant of 7.968.
3. Based on the equation above, it shows that if the Work Environment is added to one unit, Employee Performance will increase by 0.457 at a constant of 7.968.

Discussion

1. Occupational Health Safety (X1) Employee Performance (Y)

Based on the results of the study with the help of calculations of *the Statistical Package for The Social Sciences (SPSS) 25.0* for Windows program, a value of $t_{hitung} 7,248$ was obtained t_{tabel} while with a degree of freedom (df) = 75-2 = 73 at a significance level of 0.05 (double-sided test) was 1.993. Thus $7,248 > 1,993$ so it can be concluded that $>$, which means occupational health safety (K3) has a positive and significant influence on the performance of employees of the production department jarring B at PT. Arteria Daya Mulia Cirebon. This is in accordance with research conducted by $t_{hitung} t_{tabel}$ Lestari and Sudarwanto (2022) stating that there is a positive and significant influence between the variables of Occupational Health Safety (K3) and Employee Performance on CV. Rahmad Rizkilah Ngimbang Lawongan.

2. Effect of Work Environment (X2) On Employee Performance (Y)

Based on the results of the study with the help of calculations of *the Statistical Package for The Social Sciences (SPSS) 25.0 for Windows* program, a $t_{hitung} t_{tabel}$ value of 7.877 was obtained while, with a degree of freedom (df) = 75-2 = 73 at a significance level of 0.05 (double-sided test) was 1.993. Thus $7,877 > 1,993$ so it can be concluded that $>$, which means that the work environment has a positive and significant influence on the performance of employees of the B net production department at PT. Arteria Daya Mulia Cirebon. This is in accordance with research conducted by $t_{hitung} t_{tabel}$ Irfan, Irwan, and Alim (2018) which states that there is a positive and significant influence between the variables of the Work Environment and Employee Performance. The same thing was also expressed by Suryadi and Yusuf (2022) who stated that there was a positive and significant influence between the variables of the Work Environment and Employee Performance at PT. Eternal Prime.

3. Effect of Occupational Health Safety (X1) and Work Environment (X2) on Employee Performance (Y)

Based on the results of the study with the help of calculations of *the Statistical Package for The Social Sciences (SPSS) 25.0 for Windows* program, a value of 7.877 was obtained while with a degree of freedom df 2 ($n-k-1$) or $75-2-1 = 72$ at a significance level $t_{hitung} > t_{tabel}$ of 0.05 (double-sided test) was 3.12. Thus $216,385 > 3.12$ so it can be concluded that $>$, which means that occupational health safety (K3) and the work environment have an influence together (simultaneously) positively and significantly affect the performance of employees of net B production at PT. Arteria Daya Mulia Cirebon by 85.3%. The remaining 14.7% was influenced by other factors outside the study. These results are in accordance with research conducted by $F_{hitung} > F_{tabel}$ Watumlawar, Utamakno, and Cahyono (2021) which also states that there is a positive and significant influence together (simultaneously) between the variables of occupational health safety (K3) and the work environment on employee performance. The same thing was also expressed by Putra and Martha (2022) who also stated that there was a positive and significant influence together (simultaneously) between the variables of occupational health safety (K3) and the work environment on employee performance at PT. Bima Arjuna Prakasa Padang.

Coefficient of Determination

Coefficient of determination aims to measure how much influence occupational health safety (K3) and work environment have on employee performance, so the coefficient of determination is used with results that can be seen from the table below:

Table 2. Coefficient of Determination of Occupational Health Safety Variables (K3) (X1) and Work Environment (X2) Towards Employee Performance (Y)

Type	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.926	.857	.853	2.64398

a. Predictor: (constant), work environment, occupational health safety (K3)

b. Dependent Variable : Employee performance

Source: Processed researcher data, 2022

Based on table 2. shows an R number of 0.926. This figure shows that the correlation between Occupational Health Safety (K3) and the Work Environment with Employee Performance is strong. The Adjust R square (R²) number is 0.853. This figure shows the magnitude of the influence of Occupational Health Safety (K3) and Work Environment on Employee Performance is 85.3%. The remaining 14.7% was influenced by other factors outside the study.

Hypothesis Test

a. T-test (partial)

1. Hypothesis Test of Occupational Health Safety Variables (K3) (X1) on Employee Performance (Y)

The t-test was performed to show whether independent variables had a significant influence on the dependent variables. The results of testing the research hypothesis with a t-test, are as follows:

Table 3. T-test results

Variable	Unstandardized Coefficients		Standardized Coefficients Beta	T	Sig
	B	Std. Error			
(Constan)	7.968	2.698		2.954	.004
Occupational Health Safety (K3)	.430	.059	.476	7.248	.000
Work Environment	.457	.058	.518	7.877	.000

Source: (Data processing)

Based on table 3. It can be seen that occupational health safety (K3) (X1) has a value of 7,248 with a significant value of 0.00 and a value of 1,993. Thus, it can be concluded that occupational health (K3) has a positive and significant effect on the performance of employees of the B net production department at PT. Arteria Daya Mulia Cirebon, with $t_{hitung} > t_{tabel}$ value of $7,248 > 1,993$ and a significant value of $0.00 < 0.05$. Thus it can be concluded that H_0 is rejected and H_a is accepted. t_{tabel} . The description above when described in the area of acceptance and rejection of the hypothesis, it can be described as follows:

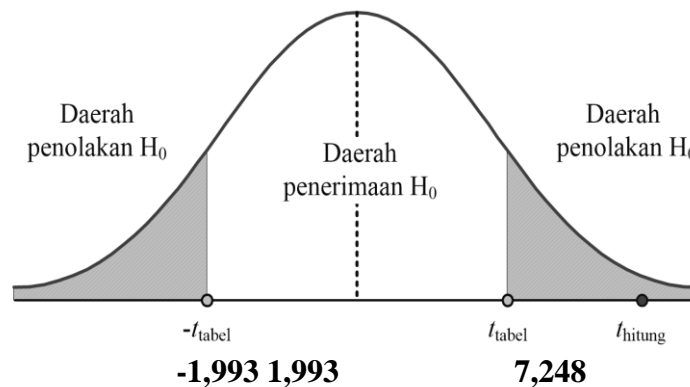


Figure 1. Areas of Acceptance and Rejection of the First Hypothesis

Based on the figure above, it can be seen that the area of acceptance and rejection of the t test for the variable Occupational Health Safety (K3) obtained the t number calculated $> t$ table, which is $7,248 > 1,993$. This means that H_0 is rejected and H_a is accepted or in other words there is a positive and significant influence between Occupational Health Safety (K3) (X1) on Employee Performance (Y) net B production section in PT. Arteria Daya Mulia Cirebon.

2. Test the Hypothesis of Work Environment Variables (X2) on Employee Performance (Y)

Based on table 4.22, it can be seen that the Working Environment (X1) has a calculated t value of 7.877 with a significant value of 0.00 and a table t of 1.993. Thus, it can be concluded that the work environment has a positive and significant effect on the performance of employees of the B net production section at PT. Arteria Daya Mulia Cirebon, with a value of $>$ or $7,877 > 1,993$ and a significant value of $0.00 < 0.05$. Thus it can be concluded that H_0 is rejected and H_a is accepted. The description above when described in the area of acceptance and rejection of the hypothesis, it can be described as follows: $t_{hitung} > t_{tabel}$

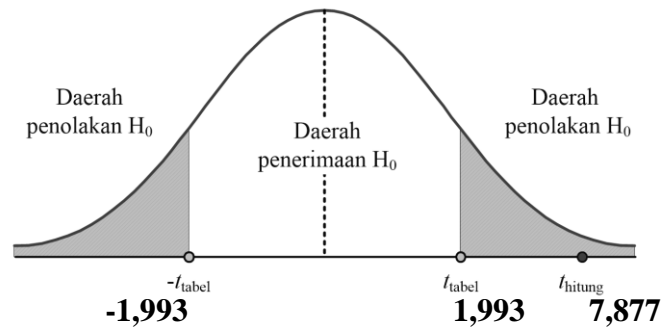


Figure 2. Areas of Acceptance and Rejection of the Second Hypothesis

Based on the figure above, it can be seen that the area of acceptance and rejection of the t test for the Work Environment variable obtained at $t_{hitung} > t_{tabel}$ number of $7,877 > 1,993$. This means that H_0 is rejected and H_a is accepted or in other words there is a positive and significant influence between the Work Environment on Employee Performance (Y) the production part of net B in PT. Arteria Daya Mulia Cirebon.

b. F test (simultaneous)

The hypothesis proposed is to test whether the variables of competence and work discipline together have a positive and significant effect on employee performance used test F. As for the steps of the analysis, it can be carried out as follows:

Table 3. F test results

Type	Sum of Squares	Df	mean Square	f	Sig
Regression	3025.340	2	1512.670	216.385	,000 ^b
Residual	503.326	72	6.991		
Total	3528.667	74			

a. Dependent Variable: Employee Performance

b. Predictors: (Constant), Work Environment, Occupational Health Safety (K3)

Source: (Data processing)

From the above output results, it can be seen that the magnitude of the calculated F value is 216.385. This proves that the results obtained are $>$ because $216,385 > 3.12$. Thus, it can be concluded that H_0 is rejected and H_a is accepted, which means that there is a significant influence between occupational health safety (K3) and the work environment on the performance of employees of jarring B production department in PT. Arteria Daya Mulia Cirebon. Below is a picture to explain the location or position of the $>: F_{hitung} > F_{tabel}$

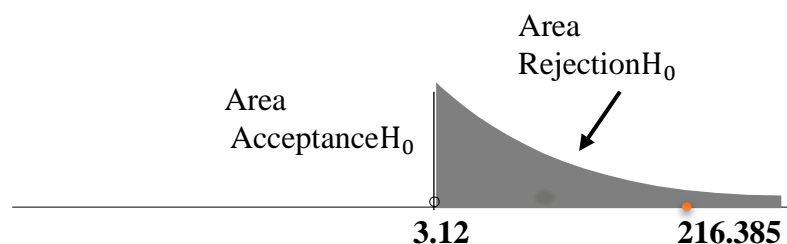


Figure 3. Areas of Acceptance and Rejection of Hypotheses

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