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The Influence of Occupational Health and Safety (K3) and the Work Environment on Employee Performance at PT. Graha Humanindo Medan

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ABSTRACT

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This research is limited to the Occupational Health and Safety (K3) of the Company, especially regarding the work procedures implemented and also the Environment provided by PT. Graha Humanindo Medan has not been able to improve Employee Performance. The formulation of the problem in this study is whether the influence of company operational standards and company facilities on employee performance at PT. Graha Humanindo Medan. The purpose of this study is to determine the Effect of Occupational Health and Safety (K3) and the Work Environment on Employee Performance at PT. Graha Humanindo Medan. The population in this study amounted to 90 employees. This research approach is a quantitative approach. The testing method uses SPSS. Based on the results of testing and analysis, it shows that there is a positive and significant influence of the variables of Occupational Health and Safety (K3) and the Work Environment on employee performance.

Occupational Health and Safety (K3), Work Environment, Employee Performance

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INTRODUCTION

Human resources, as employees, are inextricably linked to issues related to occupational health and safety (K3) and the work environment. Ensuring occupational health and safety (K3) and the work environment can foster employee morale. Employee performance significantly impacts the survival and operations of a company.

Occupational health and safety (OHS) and the work environment are crucial elements in creating optimal working conditions for employees. Occupational health and safety aims to protect employees from potential hazards that could harm their physical and mental well-being while working. Meanwhile, a conducive work environment contributes to employee comfort, productivity, and motivation.

In Indonesia, employee performance is a particular concern, especially with increasingly fierce global competition and the need for a competent workforce and quality service. Employees who are able to carry out their duties effectively and efficiently, and those with good skills, motivation, and work attitudes, tend to provide more satisfactory service. In the workplace, employee performance encompasses an individual's ability to carry out assigned tasks and responsibilities with high efficiency, effectiveness, and productivity, from production processes, marketing, customer service, to human resource management.

According to (Sedarmayanti 2018) states that Occupational health and safety is supervision of people, machines, materials and methods that include the work environment so that workers do not experience injury. According to (Mangkunegara 2016) states that: Occupational health and safety is a thought and effort to guarantee the integrity and perfection of both the physical and spiritual workforce in particular, and humans in general, the results of work and culture to move towards a just and prosperous society.

Employees are the most influential assets within a company and are a vital part of its internal structure, contributing to superior performance. Therefore, companies are responsible for providing a safe environment and ensuring employee well-being (Anjani et al., in Damayanti et al., 2018). One factor contributing to employee performance is safety and protection at work. If employees feel safe and secure because they are protected by the company, they will perform well and with a sense of calm. One way to achieve this is by implementing an Occupational Health and Safety (OHS) program.

According to Anjani et al. (2018), the Occupational Health and Safety (K3) program is a system designed to involve workers and employers in preventing work-related accidents and illnesses in the workplace. This system involves identifying potential workplace accident risks and taking appropriate preventative measures if an undesirable event occurs.

According to Budiasa (2021), the work environment is everything that surrounds employees while working, whether physical or non-physical, directly or indirectly, that can affect the employee's self and work while working. According to Afandi (2021), the work environment is anything in the workers' environment that can influence them in carrying out their duties, such as temperature, humidity, ventilation, lighting, noise, workplace cleanliness, and the adequacy of work equipment. The work environment can be defined as all the tools and equipment encountered, the surrounding environment where a person works, their work methods, as influences on their work both as individuals and as a group.

Performance is the work results in terms of quality and quantity achieved by an employee in carrying out his duties in accordance with the responsibilities given to him. The term performance comes from the word job performance or actual performance (work performance or actual achievement achieved by someone). The definition of performance is the work results in terms of quality and quantity achieved by an employee in carrying out his duties in accordance with the responsibilities given to him. According to (Anwar Prabu Mangkunegara 2016) states that: Employee performance (work performance) is the work results in terms of quality and quantity achieved by an employee in carrying out his duties in accordance with the responsibilities given to him.

PT. Graha Humanindo Medan is a company engaged in the management of Outsourcing Services founded by professionals and experienced people in their fields with the aim of providing solutions to Human Resource management problems. PT. Graha Humanindo Medan was founded in 1999. The service company PT. Graha Humanindo Medan focuses on the quality of service provided to customers. In a service company, service quality is determined by the extent to which employees are able to carry out their duties effectively and efficiently. Employees who have good skills, motivation, and work attitudes tend to provide more satisfactory services. However, PT. Graha Humanindo Medan faces specific challenges that can affect employee performance such as, High Employee Turnover Rate Phenomenon. Due to Excessive Workload Phenomenon, Employee workloads in service companies are often uneven, especially during peak seasons, so that employees feel physically and mentally exhausted, Lack of Supervision and K3 Support Phenomenon As an outsourcing company, PT Graha Humanindo may face difficulties in monitoring and ensuring that their employees comply with K3 standards Lack of communication between the parent company and clients regarding K3 responsibilities. Therefore, PT Graha Humanindo can improve occupational health and safety (K3) and the work environment for their employees, which will ultimately have a positive impact on employee performance and overall productivity.

In accordance with the description of the background and problem formulation above, the objectives that the author wants to achieve from this research are: a. To find out and analyze the influence of occupational health and safety (K3) on employee performance at PT. Graha Humanindo Medan, b. To find out and analyze the influence of the work environment on employee performance at PT. Graha Humanindo Medan, c. To find out and analyze the

influence of occupational health and safety and the work environment on employee performance at PT. Graha Humanindo Medan.

RESEARCH METHODS

This research was conducted at PT. Graha Humanindo Medan, located at Jalan Perumahan Graha Garuda Mas Blok I No. 17, Sigara-gara Patumbak Subdistrict, Deli Serdang Regency, North Sumatra Province. This research began in November 2024 and ended in March 2025.

Population and Sample

The population in this study was 90 employees of PT. Graha Humanindo Medan. The sample was drawn from the population. According to Sugiyono (2018), a saturated or census sample is one in which all members of the population are sampled.

Data Collection Technique

In this study, it consists of: 1) Primary data is data obtained directly from the main source in the organization/agency being studied, 2) Secondary data is data obtained from documents or other relevant sources to support the research analysis. This study uses questionnaires and surveys where data collection.

Data Analysis Techniques

The data obtained was then validated by examining the correlation between questions. The validation test aims to determine whether each question item posed to respondents is valid (Alfansyah Fathur et al., 2022). The validity of this study was determined using the SPSS program. To determine whether the questionnaire instrument used was suitable for use in such a way as to produce accurate data in accordance with the measurement objectives, a construct validity test was conducted.

RESULTS AND DISCUSSION

Data Analysis

In this study, we will analyze research data descriptively, both primary and secondary data.

Respondent Characteristics

Table 1.

Respondent Characteristics Based on Gender

No.	Gender	Number of people	Percentage
1	Man	70	77.78%
2	Female	20	22.22%
	Amount	90	100%

The table above shows that 70 respondents (77.78%) were male, while 20 respondents (22.22%) were female. It can be concluded that the majority of respondents in this study were male, meaning that PT. Graha Humanindo Medan employees are predominantly male.

Table 2.
Respondent Characteristics Based on Age

No	Age	Number of people	Percentage
1	21-30	85	94.44%
2	31-40	5	5.56%
	Amount	90	100%

Based on the table above, 85 people aged 21-30, or 94.44%, and 5 people aged 31-40, or 5.56%. It can be concluded that the largest number of respondents were in the 21-30 age range, namely 85 people, or 94.44%.

Research Variable Questionnaire Results

Table 3.
Occupational Health and Safety (K3) Variable Questionnaire Score (X1)

Question	Strongly agree		Agree		Disagree Less		Don't agree		Strongly Disagree	
	F	%	F	%	F	%	F	%	F	%
1	21	23.33	62	68.9	6	6.67	1	1.11	0	0.00
2	33	36.67	44	48.9	11	12.22	2	2.22	0	0.00
3	33	36.67	45	50.0	9	10.00	3	3.33	0	0.00
4	30	33.33	51	56.7	8	8.89	0	0.00	1	1.11
5	20	22.22	55	61.1	13	14.44	1	1.11	1	1.11

1. Respondents' answers to statement No. 1: Every employee who works is in a safe and clean working environment. Respondents who answered strongly agree 21 people (23.33%), agree 62 people (68.9%), disagree 6 people (6.67%), disagree 1 person (1.11%).
2. Respondents' answers to statement No. 2: The work tools or machines are in good condition. Respondents who answered strongly agree were 33 people (36.67%), agree 44 people (48.9%), disagree 11 people (12.22%), disagree 2 people (2.22%).
3. Respondents' answers to statement No. 3: The company always provides work protection such as safety shoes, helmets, masks, and gloves. Respondents who answered strongly agree were 33 people (39.73%), agree 45 people (50%), disagree 9 people (10%), disagree 3 people (3.33%).

4. Respondents' answers to statement No. 4: Availability of health services at the workplace. Respondents who answered strongly agree were 30 people (33.33%), agree 51 people (56.7%), disagree 8 people (8.89%), strongly disagree 1 person (1.11%).
5. Respondents' answers to statement No. 5: The work area is free from hazardous or toxic materials. Respondents who answered strongly agree were 20 people (22.22%), agree 55 people (61.1%), disagree 13 people (14.44%), disagree 1 person (1.11%), strongly disagree 1 person (1.11%).

Table 4.

Work Environment Variable Questionnaire Score (X2)

Question	Strongly agree		Agree		Disagree Less		Don't agree		Strongly Disagree	
	F	%	F	%	F	%	F	%	F	%
1	20	22.22	46	51.11	20	22.22	3	3.33	1	1.11
2	33	36.67	45	50.00	9	10.00	3	3.33	0	0.00
3	25	27.78	53	58.89	9	10.00	3	3.33	0	0.00
4	28	31.11	49	54.44	12	13.33	1	1.11	0	0.00
5	27	30.00	49	54.44	11	12.22	2	2.22	1	1.11

1. Respondents' answers to statement No. 1: The workspace is good enough to support work activities. Respondents who answered strongly agree were 20 people (22.22%), agree 46 people (51.11%), disagree 20 people (22.22%), disagree 3 people (3.33%), strongly disagree 1 person (11%).
2. Respondents' answers to statement No. 2: Lighting in the workplace can make work better. Respondents who answered strongly agree 33 people (36.67%), agree 45 people (51.11%), disagree 9 people (10%), disagree 3 people (3.33%).
3. Respondents' answers to statement No. 3: A spacious and comfortable workspace can support work activities. Respondents who answered strongly agree were 25 people (27.78%), agree 53 people (58.89%), disagree 9 people (10%), disagree 3 people (3.33%).
4. Respondents' answers to statement No. 4: Always create good relationships with coworkers. Respondents who answered strongly agree were 28 people (31.11%), agree 49 people (54.44%), disagree 12 people (13.33%), disagree 1 person (1.11%).
5. Respondents' answers to statement No. 5: There is a good air circulation in the workplace. Respondents who answered strongly agree 27 people (30%), agree 49 people (54.44%), disagree 11 people (12.22%), disagree 2 people (2.22%), strongly disagree 1 person (1.11%).

Table 5.
Employee Performance Variable Questionnaire Score (Y)

Question	Strongly agree		Agree		Disagree Less		Don't agree		Strongly Disagree	
	F	%	F	%	F	%	F	%	F	%
1	29	32.22	49	54.44	10	11.11	2	2.22	0	0.00
2	25	27.78	44	48.89	16	17.78	5	5.56	0	0.00
3	28	31.11	46	51.11	14	15.56	2	2.22	0	0.00
4	23	25.56	50	55.56	16	17.78	1	1.11	0	0.00
5	16	17.78	51	56.67	18	20.00	5	5.56	0	0.00

1. Table of Respondents' Answers for Statement No. 1: Having the Ability to Take Initiative in Working. Respondents who answered strongly agree were 29 people (32.22%), agree were 49 people (54.44%), disagree were 10 people (11.11%), and disagree were 2 people (2.22%).
2. Respondents' answers to statement No. 2: in completing tasks, they can complete them on time. Respondents who answered strongly agree were 25 people (27.78%), agree 44 people (48.89%), disagree 16 people (17.78%), disagree 5 people (5.56%).
3. Respondents' answers to statement No. 3: Never leave the workplace while working. Respondents who answered strongly agree were 28 people (31.11%), agree 46 people (51.11%), disagree 14 people (15.56%), disagree 2 people (2.22%).
4. Respondents' answers to statement No. 4: able to manage time as effectively as possible in terms of completing tasks. Respondents who answered strongly agree 23 people (25.56%), agree 50 people (55.56%), disagree 16 people (17.78%), disagree 1 person (1.11%).
5. Respondents' answers to statement No. 5: Willing to carry out tasks without having to wait for orders from superiors. Respondents who answered strongly agree were 16 people (17.78%), agree 51 people (56.67%), disagree 18 people (20%), disagree 5 people (5.56%).

Data Validity Test

In this validity test, the researcher used Spearman's Rank correlation analysis. According to Sugiyono (2016), Spearman's Rank is used to find relationships or to test the significance of associative hypotheses when each connected variable is ordinal, and the data sources between variables do not have to be the same. Based on all statements in each variable having a corrected item correlation (r count) value greater than r table, the instrument can be considered valid.

Data Reliability Test

This reliability test was conducted using the Cronbach Alpha method. Reliability is assessed by examining the extent to which measurement results remain consistent when repeated measurements are taken. The alpha (α) value limit is >0.50 .

The variables are declared reliable with the following criteria:

- If Cronbach's Alpha > 0.5 then it is reliable
- If the Cronbach's Alpha value is <0.5 then it is not reliable

Based on table 5.10 above, it can be seen that the Cronbach alpha value for all variables is above 0.208 and ranges from 0 to 1, tending to be closer to the number 1, thus all items in the measurement instrument can be categorized as reliable.

Classical Assumption Test

Data Normality Test

Table 6.
Normality Test Results Kolmogorov-Smirnov
One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		90
Normal	Mean	0E-7
Parameters ^{a,b}	Std. Deviation	1.89982437
Most Extreme Differences	Absolute	.125
	Positive	.077
	Negative	-.125
Kolmogorov-Smirnov Z		1.183
Asymp. Sig. (2-tailed)		.122

a. Test distribution is Normal.

b. Calculated from data.

Based on the results of the normality test, the significance result was 0.122 > 0.05 , so it can be concluded that the data is normally distributed.

Multicollinearity Test

Table 7.
Multicollinearity Test Results
Coefficients^a

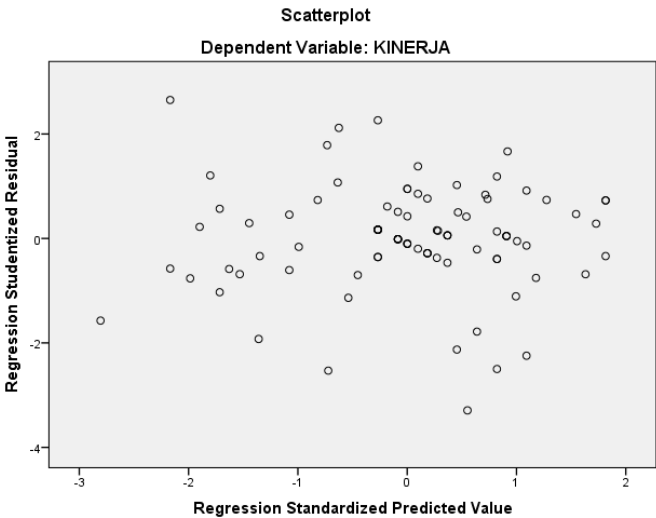
Model		Collinearity Statistics	
		Tolerance	VIF
1	Kesehatan Dan	.527	1.899
	Keselamatan Kerja		
	Lingkungan Kerja		

a. Dependent Variable: KINERJA
Sumber: Output SPSS Data Diolah-2025

From the output of the multicollinearity tester using SPSS above, the two variables tested have a tolerance value of >0.189 and a VIF value of <10.00, so it can be concluded that there are no symptoms of multicollinearity.

Heteroscedasticity Test

Based on the SPSS output in the Scatterplot section, it appears that the data points are randomly distributed without forming any particular pattern. The points are also evenly distributed, both above and below zero on the Y-axis. This indicates that there is no heteroscedasticity in the regression model, thus the model can be considered suitable for use. The figure below shows a scatterplot pattern that illustrates this condition.



Picture 1.
Heteroscedasticity Test

ata Evaluation
Hypothesis Testing

Table 8.
Statistical Test Results of Regression Coefficient
Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	2.469	2.014		1.226	.223		

Kesehatan Dan Keselamatan Kerja	.348	.130	.279	2.673	.009	.527	1.899
Lingkungan Kerja	.512	.110	.485	4.638	.000	.527	1.899

a. Dependent Variable: KINERJA

1. The constant (a) = 2.469 shows a constant value, where if the independent variable = 0 then the dependent variable = 2.469, meaning that if health and safety (K3) and the work environment do not exist, employee performance will still have a value of 2.469.
2. The regression coefficient of the discipline variable (X1) = 0.348 shows that if the Occupational Health and Safety (K3) variable is increased by 1 unit, the employee performance variable will increase by 0.348 units.
3. The regression coefficient of the work environment variable (X2) = 0.512 indicates that if the work environment variable is increased by 1 unit, the employee performance variable will increase by 0.512 units.

Simultaneous Testing (F Test)

Table 9.
Simultaneous Statistical Test Results
ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	320.558	2	160.279	43.409	.000 ^b
Residual	321.231	87	3.692		
Total	641.789	89			

a. dependent variable: Performance

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

Based on Table 5.14, the calculated Fcount value is recorded at 43,409 with a significance level of 0.000b. Ftable is obtained (N- n -1 = 90 -2 -1 = 87) then Ftable = 3.10 is obtained, Fcount > Ftable with a significance of 0.000 < 0.05.

Partial Testing (t-Test)

Table 10.
Partial Test Results of Variables X1 and X2 against Y
Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.469	2.014		1.226	.223

Kesehatan Dan Keselamatan Kerja	.348	.130	.279	2.673	.009
Lingkungan Kerja	.512	.110	.485	4.638	.000

a. Dependent Variable: Performance

To determine the partial influence of Occupational Health and Safety (K3) and the Work Environment on Employee Performance, see Table 5.15 above. Based on the table, the calculated value is obtained which will be compared with the t table value at a 95% confidence level (α : 0.05), namely 1.661.

Coefficient of Determination Test (R²)

Table 11.
Determination Test Results
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.707 ^a	.499	.488	1.922

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

The R Square value in the table above is 4.88. This indicates that 48.8% of the Employee Performance variable at PT. Graha Humanindo Medan can be explained by the Occupational Health and Safety (K3) and Work Environment variables, while the remaining 51.2% is influenced by other variables not examined in this study.

Discussion

The Influence of Occupational Health and Safety (K3) on Employee Performance

Based on the results of data processing, the t-count value for the Occupational Health and Safety (K3) variable (X1) is 2.673 with a significance level of 0.223. By comparing the t-count value with the t-table value of 1.661, it can be seen that the t-count is greater than the t-table ($2.673 > 1.661$). In addition, the significance value of 0.223 is greater than 0.05. Thus, it can be concluded that the Occupational Health and Safety (K3) variable has an influence and is significant on employee performance at PT. Graha Humanindo Medan. This is in accordance with the research of Bangun et al., 2018). The conclusion from the explanation above is that the Occupational Health and Safety (K3) program has a significant effect on employee performance. Because of the implementation of the K3 program, employees can feel optimal protection from the place where they work. This results in an employee's performance being able to increase.

The Influence of Work Environment on Employee Performance

Based on the results of data processing, the t-count value for the Work Environment variable (X2) is 4.638 with a significance level of 0.000. By comparing the t-count value with the t-table which is 1.661, it can be seen that the t-count is smaller than the t-table ($4.638 > 1.661$). In addition, the significance value of 0.000 is smaller than 0.05. Thus, it can be concluded that the Work Environment variable partially has a positive and significant effect on employee performance at PT. Graha Humanindo Medan. Why does the Work Environment have an effect? A safe and healthy work environment is the foundation for increasing efficiency and employee satisfaction which ultimately contributes positively to the achievement of company goals, this is supported by the theory of Prawira According to (Darmadi, 2020), the work environment includes something that is around employees so that it influences an individual in carrying out the obligations that have been assigned to him, such as the presence of air conditioning, good lighting and others. Ways to improve the work environment are to implement rules regarding cleanliness, spacious workspace, adequate ventilation and lighting, complete supporting facilities, and build good communication among coworkers.

The Influence of Occupational Health and Safety (K3) and the Work Environment on Employee Performance.

Based on the results of the F Test calculation, the Fcount value was recorded at 43.409 with a significance level of 0.000b. $F_{table} = 3.10$ was obtained, $F_{count} > F_{table}$ with a significance of $0.000 < 0.05$. indicating that the author's third hypothesis is accepted because the Occupational Health and Safety (K3) variable affects Employee Performance, and the Work Environment variable affects Employee Performance. This is in accordance with the research conducted by the explanation above, it can be concluded that Occupational Health and Safety (K3) and the Work Environment have a positive and significant effect on Employee Performance. This means that the better the quality of work provided, the better the resulting performance will be. can support employees in their efforts to provide the best quality they have for the work they do, because employees do not feel threatened by their safety while working and feel safe in a comfortable work environment.

CONCLUSION

1. Occupational Health and Safety (K3) has a positive and significant impact on Employee Performance at PT. Graha Humanindo Medan.
2. The work environment has a positive and significant influence on employee performance at PT. Graha Humanindo Medan.

3. Occupational Health and Safety (K3) and the Work Environment simultaneously have a positive and significant influence on Employee Performance at PT. Graha Humanindo Medan.

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