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The Influence of Workload, Work Stress, and Occupational Safety and Health on the Performance of Employees of the Lamongan District Health Office

Yunita Anggraini Widyastutik
Faculty of Economics and Business
Islamic University of Lamongan
Lamongan, Indonesia
yunitaanggraini.w@unisla.ic.id

Ruswaji
Faculty of Economics and Business
Islamic University of Lamongan
Lamongan, Indonesia
ruswaji1965@unisla.ic.id

Puguh Cahyano
Faculty of Economics and Business
Islamic University of Lamongan
Lamongan, Indonesia
puguhcahyono@unisla.ic.id

Diah Ayu Novitasari
Faculty of Economics and Business
Islamic University of Lamongan
Lamongan, Indonesia
diahayu@unisla.ic.id

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ABSTRACT

One of the most important factors that affect how well an organization operates is its human resources. It is important for an organization to improve the quality of its current workforce. This study aims to analyze the effect of workload, work stress, occupational safety and health on employee performance. The sample of this study was some of the employees of the Lamongan Regency Health Office, totaling 93 people from a population of 121 people. The data analysis techniques used were validity testing, reliability testing, and hypothesis testing using SPSS version 26. The results of the t-test analysis (partial) showed that workload with a calculated t result (1.657) <t table (1.662), Sig. value 0.101> 0.05, work stress with a calculated t result (-0.807) <t table (1.662), Sig. value 0.422> 0.05 and occupational safety and health with a calculated t result (2.639) <t table (1.662), Sig. value. 0.010 < 0.05, then the workload and work stress variables are declared insignificant, while the occupational health and safety variable is declared significant on the performance of employees of the Lamongan Regency Health Service.

INTRODUCTION

One of the most important factors that affect how well an organization operates is its himan resoirces. It is important for an organization to improve the qiality of its cirrent workforce. The extent to which the organizational or company system can sipport and meet the needs of employees and the organization or company is the main determinant of the qiality of himan resoirces. Performance according to Afandi (2021) is the readiness of an individial or groip of individials to carry oit or improve tasks according to their responsibilities with the expected resilts. Therefore, the ability of an agency to

manage and distribite resoirces is reflected in the performance of its employees, making it very important.

There are many things that affect employee performance incliding workload, work stress, and occipational health and safety. One of the factors that affects employee performance is workload. Workload is a nimber of processes or activities that mist be completed by an organizational init systematically within a certain period of time to obtain information aboit the efficiency and effectiveness of the organizational init's work. (Dininingsih et al., 2020)

If the workload given to employees is too heavy, it will have an impact on employee performance in the company. (Qoyyimah et al., 2020). Another factor that affects employee performance is work stress. Mikti et al., (2022) stated that work stress is a condition where there are one or more factors in the workplace that interact with workers so that they interfere with physiological and behavioral conditions.In addition, another factor that affects employee performance is occipational health and safety. In an agency,According to Hasibian et al, (2020) occipational safety and health (K3) is a thoight and effort to ensire the integrity and perfection of both the physical and spiritial which aims to maintain the safety and comfort of the workforce in order to achieve physical endirance, work capacity, and high levels of health.

The resilts of a stidy condicted byIlahide et al (2024) said that workload and work stress partially have a positive and significant effect on employee performance. Meanwhile, according to Raihan, A. & Amirilmikminin (2023), workload partially does not have a significant effect on employee performance.There are variois resilts of differences or there is a research gap, therefore this stidy will try to re-test the workload, work stress, and occipational health safety on employee performance. Different from before, the sibjects in this stidy were employees of the Lamongan Regency Health Office.

Based on the description above and according to the opinions of experts, it can be identified that employee performance is greatly inflienced by variois factors incliding motivation, workload, work discipline, work stress, occipational health and safety, and others. Of all the factors above, researchers focis more on three factors, namely workload, work stress, and occipational health and safety. To find oit how mich inflience it has, the researcher gave the title in this stidy "The Inflience of Workload, Work Stress, and Occipational Health and Safety on the Performance of Employees of the Lamongan Regency Health Office"

RESEARCH METHODS

This research was condicted at the Lamongan District Health Office located at Jalan Dokter Wahidin Sidiro Hisodo No.57, Jetis, Lamongan. The implementation of this research was in the monthNovember 2024 – Febriary 2025. This stidy ises a qiantitative approach that aims to see the inflience of fellow variables. This stidy will lead to casial associative research with qiantitative research methods, where this stidy will explain the inflience of workload, work stress, and occipational health safety. In this stidy, the popilation taken was part of the Lamongan Regency Health Office employees totaling 93 people.To determine the nimber of samples in this stidy ising the Slovin formila. The Slovin formila in Narendra et al., (2021) is a formila for calcilating the minimim nimber of samples from a popilation. The Slovin formila is as follows: The Slovin formila is ised in this stidy to calcilate the sample size. Narendra et al., (2021) stated that the Slovin formila is a method for determining the smallest sample size from a popilation. Here is the Slovin formila:

$$n=\frac{N}{1+(N\times e^2)}$$

Information:
n = sample size
N = Popilation
E = Error rate

$$n=\frac{121}{1+(121\times 0{,}05^2)}$$

$$n=\frac{121}{1{,}302}$$

$$n=93$$

From 121 populations, samples were taken with a 5% error rate, so the sample obtained was 93 people.

RESULTS AND DISCUSSION

1. Data Quality Test
   1) Validity Test

Table 1 Validity Test Results

Variables	Statement	R count	R table	Information
Workload (X1)	X1.1	0.216	0.2039	Valid
	X1.2	0.656	0.2039	Valid
	X1.3	0.732	0.2039	Valid
	X1.4	0.682	0.2039	Valid
	X1.5	0.756	0.2039	Valid
	X1.6	0.729	0.2039	Valid
	X1.7	0.746	0.2039	Valid
	X1.8	0.358	0.2039	Valid
Job Stress (X2)	X2.1	0.597	0.2039	Valid
	X2.2	0.684	0.2039	Valid
	X2.3	0.688	0.2039	Valid
	X2.4	0.639	0.2039	Valid
	X2.5	0.640	0.2039	Valid
	X2.6	0.589	0.2039	Valid
	X2.7	0.261	0.2039	Valid
	X2.8	0.277	0.2039	Valid
	X2.9	0.672	0.2039	Valid
	X2.10	0.714	0.2039	Valid
Occupational Safety and Health (K3) (X3)	X3.1	0.496	0.2039	Valid
	X3.2	0.729	0.2039	Valid
	X3.3	0.241	0.2039	Valid
	X3.4	0.702	0.2039	Valid
	X3.5	0.519	0.2039	Valid
	X3.6	0.792	0.2039	Valid
	X3.7	0.844	0.2039	Valid
	X3.8	0.777	0.2039	Valid
Employee Performance (Y)	Y.1	0.825	0.2039	Valid
	Y.2	0.894	0.2039	Valid
	Y.3	0.823	0.2039	Valid
	Y.4	0.865	0.2039	Valid
	Y.5	0.900	0.2039	Valid
	Y.6	0.869	0.2039	Valid
	Y.7	0.903	0.2039	Valid
	Y.8	0.825	0.2039	Valid

Source: SPSS 26 Output Results

The output results, as shown in the table above, show that each indicator or statement item of each variable in this study has a calculated r value > r table (0.2039), indicating the validity of each indicator of each variable.

2) Reliability test

The following table shows the findings of the reliability test conducted using SPSS 26 with 93 respondents for the variables of workload (X1), work stress (X2), occupational health and safety (X3), and their influence on employee performance (Y).

Table 2 Reliability Test Results

No.	Variables	Cronbach Alpha (α)	Reliability Standard	Information
1	Workload (X1)	0.729	0.60	Reliable
2	Job Stress (X2)	0.786	0.60	Reliable
3	Occupational Safety and Health (X3)	0.752	0.60	Reliable
4	Employee Performance (Y)	0.950	0.60	Reliable

Source: SPSS 26 Output Results

According to the above, the results of the reliability test show that the employee performance variable (Y) is 0.950; the occupational health and safety variable (X3) is 0.752; the work stress variable (X2) is 0.786; and the workload variable (X1) is 0.729. As a result, the four variables used in this study have a Cronbach's Alpha value higher than the minimum value of 0.60. Therefore, it can be said that the statements in this survey are credible.

3) Multiple Linear Regression Test

A regression model that combines several independent variables is known as multiple linear regression. Using the independent variables of workload (X1), work stress (X2), and occupational health and safety (X3), this analysis model predicts the value of the dependent variable of employee performance (Y) and assesses the extent to which each independent variable affects the dependent variable. The following table shows the results of the multiple linear regression test conducted by SPSS 26:

Table 3 Multiple Linear Regression Test Results

Coefficientsa

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	19,637	5.022		3.910	.000
	X1	.213	.128	.206	1,657	.101
	X2	-.056	.069	-.085	-.807	.422
	X3	.307	.116	.306	2,639	.010

a. Dependent Variable: Y

The multiple linear regression equation that can be prepared using the table above as a guide is:

$$Y= 19.637 + 0.213\ X1 + (-0.056)\ X2 + 0.307\ X3 + e$$

With a regression value of 0.307, occupational health and safety is the independent variable with the greatest impact according to the linear equation, while work stress has the smallest influence with a regression coefficient value of -0.056.

4) Test of coefficient of determination

The percentage of impact of independent variables on the dependent variable using the coefficient of determination (r2). The influence of each independent variable on the dependent variable decreases as the coefficient of determination of the regression equation approaches zero. The table below provides insight into the coefficient of determination test conducted with SPSS 26:

Table 4 Results of Determination Coefficient Test

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.505a	.255	.230	3,067

a. Predictors: (Constant), X3, X2, X1

Source: SPSS 26 Output Results

It is clear from the findings of the previous table that the value (r2) of 0.255 in the r2 table determines the strength of the relationship between the independent and dependent variables. This shows that workload (X1), work stress (X2), and occupational health and safety (X3) have an impact of 25.5% on employee performance (Y) with other factors not covered in this study affecting the remaining portion.

5) t-test (partial)

The partial impact of significant or insignificant independent variables on the dependent variable is assessed using the t-test (if the sig. value < 0.05 then it has a significant influence).

Table 5 t-Test Results (Partial)

Coefficientsa

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	19,637	5.022		3.910	.000
	X1	.213	.128	.206	1,657	.101
	X2	-.056	.069	-.085	-.807	.422
	X3	.307	.116	.306	2,639	.010

a. Dependent Variable: Y

With a significance level of 5%, the t table is generated from the results of the previous table using the formula df = n – k, where (n) is the number of respondents (93), and (k) is the number of variables (df = 93-4 = 89). Therefore, a t table of 1.662 is generated. Given that the significance value is 0.422, work stress does not have a significant effect on employee performance. Employee performance is significantly influenced by occupational health and safety as indicated by the significance value of 2.639.

6) F Test (Simultaneous)

Basically, the F test shows whether each independent variable in the model simultaneously affects the dependent variable. The formula df = (nk-1) is used to obtain the F table, which produces a value of 2.47 (df = 93-3-1). The following table shows the results of the simultaneous F test using SPSS 26:

Table 6 F Test Results (Simultaneous)

ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	286,620	3	95,540	10.158	.000b
	Residual	837,079	89	9.405		
	Total	1123.699	92			

a. Dependent Variable: Y

b. Predictors: (Constant), X3, X2, X1

Given that F table is 2.47 and F count is 10.158 from the previous table, F count > F table and the level of significance is 0.000 < 0.05. Therefore, Ha is approved and H0 is rejected. This shows that employee performance in the Lamongan District Health Office is influenced by workload, work stress, and occupational health safety simultaneously.

CONCLUSION

From the results of the study entitled "The Effect of Workload, Work Stress, and Occupational Safety and Health on the Performance of Employees of the Lamongan Regency Health Office.". It can be concluded from the findings of the analysis and conversations around the problems and objectives of the study that the workload variable partially does not have a significant effect on employee performance. The work stress variable partially does not have a significant effect on employee performance. The occupational safety and health variable partially has a significant effect on employee performance.

It is expected that further researchers can use this research as a reference and comparison regarding the science of management in the field of human resource management, and can also conduct similar research with different objects and larger samples to generalize new findings. In addition, it can also add other variables, even intervening variables.

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