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THE INFLUENCE OF WORKLOAD AND WORKING ENVIRONMENT ON EMPLOYEE PERFORMANCE WITH WORK STRESS AS AN INTERVENING VARIABLE AMONG EDUCATIONAL STAFF AT UNIVERSITAS SWADAYA GUNUNG JATI

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***Abstract*—In 2023, According to Unirank Universitas Swadaya Gunung Jati was ranked 25th best private university in Indonesia. This achievement was based on the performance of all academic community members, one of which was the educational staffs. To achieve this, there seem to be some influencing factors, such as workload, work environment and work stress. This research aims to determine how workload and work environment influence employee performance with work stress as an intervening variable. Drawing on purposive sampling technique and proportional structured random sampling, this research involved 79 respondents. Data analysis uses SmartPLS software to determine the influence of independent variable on the dependent variable and on the intervening variable. The study found that there is no partial influences of workload on work stress; There is no partial influence of work environment on work stress; there is partial influences of workload on employee performance; there is a partial influence of work environment on employee performance; there is no partial influence of the work stress on employee performance; work stress failed to mediate the influence of workload on employee performance; work stress failed to mediate the influence of work environment on employee performance**

Keywords— ***workload; work environment; work stress and employee performance***

I. INTRODUCTION

The progress of an organization cannot be separated from the role of human resources working for the organization. Human Resources (HR) is one of the main capitals in an organization, sience HR is one of the drivers of all activities in an organization in achieving organizational goals (Sari et al., 2022). Competent human resources may produce good performance and can support the success of an organization.

Universitas Swadaya Gunung Jati Cirebon is an organization operating in the field in higher education located in Cirebon and was founded in 1961. In 2023, Universitas Swadaya Gunung Jati Cirebon include best 25th of private university in Indonesia. This achievement is believed due to all academic communities at this university who collaborate each other to improve organizational performance.

This result demonstrates that the University's performance falls into the good category, and that academic community members' performance, including that of the teaching faculty, is likewise good. The outcome will undoubtedly serve as a guide for the university in improving its performance the following year. Raising goals for university performance quality standards is one strategy to boost academic performance. This will also raise goals for staff members at the university and will have an impact on annual employee performance reviews.

The good performance of UGJ staff may be influenced by their appropriate strategies in managing workload, work stress and work environment. Recently, the UGJ staff's workload currently increases due to the addition of adjacent events. There are some additional jobs beside main jobs. Over workload is found to have a negative effect on employee performance (Alifah et al., 2020). However, in the other side, Ahmad et al (2019) found that workload has a positive effect on employee performance.

Stress at work is another influential element. Employees are currently beginning to experience symptoms of work-related stress, such as anxiety and headaches. Employee performance suffers as a result. This is supported by earlier research by Diputa and Suya (2022), which discovered that employee performance is negatively and significantly impacted by work stress. This result, however, conflicts with Ahmad et al.'s (2019) conclusion that employee performance is not significantly impacted by work stress.

Employee performance is also significantly impacted by environmental factors. For example, disorganized files can negatively impact performance by creating an unfavorable work environment. Previous research (Nabilah & Ridwan, 2022) has corroborated this, demonstrating that employee performance is positively and significantly impacted by the work environment. Sabilalo et al. (2020) discovered, however, that employee performance is negatively and negligibly impacted by the work environment.

This study aims to ascertain the partial effects of workload, work environment, and work stress on employee performance, as well as the ways in which workload, work stress, and work environment can partially mediate each other's effects on employee performance.

II. METHOD

This study employed a quantitative research strategy as its research methodology. When workload and the work environment are the independent variables, employee performance is the dependent variable, and job stress acts as a mediating or intervening variable. To conduct the assessment, each variable has an indication, which are listed below.

TABEL 1. OPERATIONAL VARIABLE

Variable	Indicator
Workload (X1)	• Target that must be achieved (X1.1) • Double job (X1.2) • Working conditions (X1.3) • Feelings (X1.4) • Time usage (X1.5) • Sudden tasks (X1.6)
Work environment (X2)	• Lighting (X2.1) • Air circulation (X2.2) • Space for movement (X2.3) • Noise (X2.4) • Use of colour (X2.5) • Security (X2.6) • Fairness (X2.7) • Employee relations (X2.8)
Work stress (Y)	• Migraine/headache (Y1) • Heart rate increases (Y2) • Anxious (Y3) • Feelings of tension (Y4) • Loss of enthusiasm for work (Y5) • Avoiding/postponing work (Y6)
Employee performance (Z)	• Quality of work (Z1) • Accuracy (Z2) • Number of jobs (Z3) • Quickly complete tasks (Z4) • Cooperate with each other (Z5) • Opinion (Z6) • Responsibility (Z7) • Don't procrastinate work (Z8)

The conceptual framework, which is depicted in the graphic below, served as the research framework for this study.

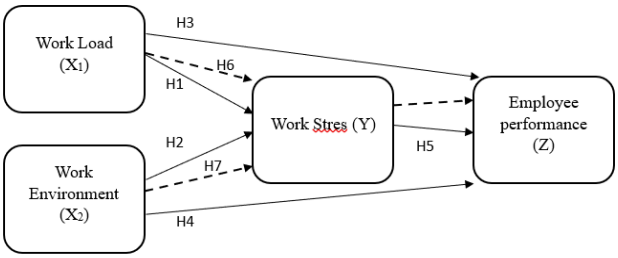

Figure 1 Research Conceptual Framework

The following are a few of the research's hypotheses based on the context and goal:

H : Workload (X1) is predicted to influence work stress (Y)
H2 : Work environment (X2) is predicted to influence work stress (Y)
H3 : Workload (X1) is predicted to influence employee performance (Z)
H4 : Work environment (X2) is predicted to influence employee performance (Z)
H5 : Job stress (Y) is predicted to influence employee performance (Z)

H6 : Workload (X1) is predicted to influence employee performance (Z) through work stress (Y).
H7 : Work environment (X2) is predicted to influence employee performance (Z) through work stress (Y).

The academic community of Universitas Swadaya Gunung Jati Cirebon served as the study population. The sample is intended exclusively for staff officers in education. In this study, purposive sampling was utilized for sampling, and the criteria that were used were employees who work in administration or offices; employees who have served for more than 2 years; employees who have taken at least diploma education

This research used questionnaire distribution, interviews as data gathering methods. The Slovin algorithm yields a total of 67 respondents; however, this study employs 79 respondents to identify more employees. The smartPLS 4.0 software facilitates data analysis activities using descriptive and statistical analysis. The analyses utilized in this study include the following series:

1. Descriptive analysis
   a. Analysis descriptions
   b. Analysis of research variable descriptions
2. Make a Model
3. Test the Outer Model
   a. Convergent Validity
   b. Discriminant Validity
   c. Composite Reliability
4. Test the Inner Model
   a. F square
   b. R Square
   c. Q Square
   d. Fit Models
5. Hypothesis Testing
   a. Direct hypothesis
   b. Indirect Hypothesis

III. RESULT AND DISCUSSION

Descriptive Analysis

*Re*spondent Description

This part presents the information gathered from questionnaires given to the sample respondents, who are the education staff of Universitas Swadaya Gunung Jati. The surveys asked questions on respondents' working period, gender, and level of education. These are the outcomes.

Gender

TABLE 2. GENDER DISTRIBUTION

Gender	N
Man	37
Women	42

Based on the table above, the largest number of samples are female, 42 peoples.

Education

TABLE 3. RESPONDENT EDUCATION

Education	N
D 1-3	1
D4/S1	52
S2	23
S3	3

Based on the table above, the highest number of graduates is the D4/S1 level, 52 people

Year of service

TABLE 4 RESPONDENTS' LENGTH OF WORK

Year of service	N
2-5 Year	4
5-10 Year	23
10-15 Year	30
> 15 Year	22

According to the above data, the maximum number of years of employment is between 10 and 15 years, for up to 30 individuals

Descriptive Variable

This section explains the information gathered from the questionnaire given to the sample, which was converted into scores by counting how many responses each indicator received. The results are shown as follows:

TABLE 5. DISTRIBUTION OF VARIABLE CHARACTERISTICS

Variable	Total		Average	Category
	Frequency	*Skor*		
Workload	79	1853	3,91	High
Work environment	79	1881	3,97	High
Work stress	79	1315	2,77	Medium
Employee performance	79	1938	4,09	High
Average			3,69	High

The average of the four factors, as indicated by the above table, is 3.69, falling into the High group. With employee performance having the greatest average score value and work stress having the lowest average score value.

Analysis Model

The following is the model for analysis using SmartPLS software based on the identified indications.

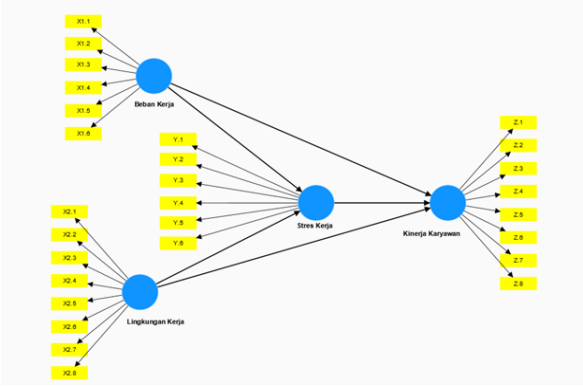

Figure 2. Structural model from smartPLS analysis

Outer Model Test

Convergent Validity

Determining the correlation value between each indicator and the variables is the goal of convergent validity measurement. Examining the output results in outer loading is one technique to determine validity; if the value is more than 0.7, it is considered legitimate. Additionally, if the value is less than 0.7, the indicator can be eliminated (Ghozali, 2014).

According to the analysis carried out with smartPLS, 15 indications were deemed legitimate, while 13 indicators did not match the standards with outer loading values less than 0.7. This is the outer loading's output result.

TABLE 6. OUTPUT OF OUTER LOADING

	X1	Z	X2	Y	Explanation
X1.4	0.910				Valid
X1.5	0.880				Valid
X2.2			0.724		Valid
X2.3			0.811		Valid
X2.6			0.811		Valid
X2.8			0.860		Valid
Y.1				0.815	Valid
Y.2				0.887	Valid
Y.3				0.861	Valid
Y.4				0.823	Valid
Z.3		0.726			Valid
Z.5		0.908			Valid
Z.6		0.874			Valid
Z.7		0.901			Valid
Z.8		0.848			Valid

Of the 28 indications in the proposed indicator, only 15 are deemed legitimate based on the above table, where the indicator value is 0.7. The resulting structural model is therefore as follows.

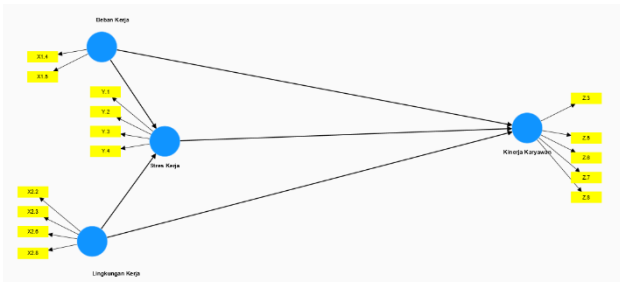

Figure 3. Optimal structural model of smartPLS

Discriminant Validity

The cross-loading value is examined as part of the smartPLS software's discriminant validity process. The objective is to determine whether the research instrument is valid for elucidating latent variables. These are the results of the software called smartPLS.

TABLE 7. CROSS LOADING RESULTS

	X1	Z	X2	Y
X1.4	0.910	0.743	0.571	0.086
X1.5	0.880	0.651	0.623	0.028
X2.2	0.344	0.312	0.724	-0.036
X2.3	0.495	0.393	0.811	-0.016
X2.6	0.426	0.402	0.811	0.074
X2.8	0.716	0.717	0.860	0.091
Y.1	0.031	-0.048	0.026	0.815
Y.2	0.093	-0.031	0.073	0.887
Y.3	0.037	-0.065	0.051	0.861
Y.4	0.045	-0.035	0.006	0.823
Z.3	0.545	0.726	0.435	-0.086
Z.5	0.732	0.908	0.614	-0.018
Z.6	0.623	0.874	0.561	-0.087
Z.7	0.715	0.901	0.531	-0.000
Z.8	0.701	0.848	0.511	-0.044

When compared to the cross-loading values on the other variables, each indicator is recognized to have the biggest cross-loading value on the variable that it formed based on the data above.

Composite Reliability

Composite reliability testing evaluates the degree of reliability among the constructions' indicators. If the Cronbach's alpha value is more than 0.6, the test findings are considered satisfactory. The test results are shown in the following Table 8.

TABLE 8. CRONBACH'S ALPHA RESULTS

Variable	Cronbach's alpha	Explanation
X1	0.754	Reliable
Z	0.905	Reliable
X2	0.829	Reliable
Y	0.871	Reliable

The table indicates that all constructions have good levels of dependability because the Cronbach's alpha calculations for each construct show values greater than 0.6.

Inner Model Test

R Square

Finding the extent of the effect between the variables in the model includes the goal of the R square test.

TABLE 9. R SQUARE TEST RESULT

Variable	R Square
(Z)	0.641
(Y)	0.004

Based on the table above, the value of R Square is obtained as follows:

a. Z's R-squared (R2) value is 0.641. It can be understood that independent variables, such as workload, work environment, and work stress, account for 64.1% of the variance in the validity of the Z construct, with the remaining 35.9% being influenced by variables not included in this study.
b. With an R2 (R-square) value of 0.004, Y's construct validity can be modified by independent variables, such as workload and work environment, to the extent of 0.4%. Meanwhile, variables other than the variables under study account for 99.6% of the variance.

Q Square

This test is to determine the capabilities of the research variables. The following calculations regarding Q square are as follows:

Q2 = 1 – (1 – R12) (1 – R2 2)
Q2 = 1 – (1 – 0,641) (1 – 0,004)
Q2 = 1 – (0,359)(0,996)
Q2 = 0,642

The computation yields a result of 0.642, indicating strong predictive significance for the model. Therefore, it can be said that workload, work environment, and work stress account for 64.2% of employee performance, with fabric factors—which are not included in the study model—accounting for the remaining 35.8%.

Fit Model

The purpose of this measurement is to assess the quality of the used model. If the SRMR value is less than 0.1, the model is considered good. The output results of the smartPLS program are as follows.

TABEL 10. MODEL FIT CALCULATION RESULTS

	Saturated model
SRMR	0.086

Based on the table above, it is found that the SRMR value is <0.1, which means the model is fit.

Hypothesis testing

Using the bootstrapping method, it is possible to observe the outcomes of direct or indirect hypothesis testing by comparing the t table value with a significance level of 95%, or a = 0.05, and the calculated t value (results from bootstrapping). If the computed t value is greater than the t table, in the case where the t table value is 1.96, the hypothesis is accepted.

a. Direct hypothesis

The following is a presentation of the results of bootstrapping calculations from smartPLS

TABEL 11. RESULT OF BOOTSTRAPPING CALCULATIONS

Hypothesis	Variable	Original sample (Q)	T Count	P Value	Result
H3	X1 □ Z	0.662	7.157	0.000	Significant
H1	X1 □ Y	0.055	0.270	0.787	Insignificant
H4	X2 □ Z	0.191	2.003	0.045	Significant
H2	X2 □ Y	0.016	0.077	0.939	Insignificant
H5	Y □ Z	-0.105	1.310	0.190	Insignificant

Based on the table above, it is obtained

1. Testing hypothesis 3 shows that the calculated t value is 7.157 > t table 1.96, the hypothesis is accepted. It means that there is an influence between workloads on employee performance.
2. Testing hypothesis 1 shows that the calculated t value is 0.204 < t table 1.96, the hypothesis is rejected. It means that there was no effect of workload on work stress.
3. Hypothesis test 4 shows that the calculated t value is 2.003 > t table 1.96, the hypothesis is accepted. it means that there is an influence of work environment on employee performance.
4. Hypothesis test 2 shows that the calculated t value is 0.077 < t table 1.96, the hypothesis is rejected. it means that there was no influence of the work environment on work stress.

5. Hypothesis test 5 shows that the calculated t value is 1.310 < t table 1.96, the hypothesis is rejected. It means that there was no influence of work stress on employee performance.

b. Indirect Hypothesis

The following is an explanation in the form of bootstrapping calculation results from smartPLS

TABLE 12. BOOTSTRAPPING RESULTS

Hipotesis	Relationship	Original sample (Q)	T count	P Value
H6	X1 □ Y □ Z	-0.006	0.235	0.814
H7	X2 □ Y □ Z	-0.002	0.068	0.946

Based on the table above, it is obtained

1. Hypothesis test 6 shows that the calculated t value is 0.235 < t table 1.96, the hypothesis is rejected. It means that work stress is unable to mediate the relationship between workload and employee performance.
2. Testing hypothesis 7 shows that the calculated t value is 0.068 < t table 1.96, the hypothesis is rejected. It means that the work environment is unable to mediate the relationship between workload and employee performance.

IV. CONCLUSIONS

Conclusion

a. There is no partial influence of workload on work stress;
b. There is no partial influence of work environment on work stress;
c. There is partial influence of workload on employee performance;
d. There is partial influence of environment on employee performance;
e. There is no partial influence of the work stress on employee performance;
f. Work stress fails to mediate the influence of workload on employee performance;
g. Work stress fails to mediate the influence of work environment on employee performance

Implication

a. It is hoped that this research can contribute to additional literature or reference regarding employee performance.
b. This research can provide input for agencies regarding factors that influence employee performance such as workload, work environment and work stress.

Research Limitations

a. The only educational staff members at Swadaya Gunung Jati University's campuses one and three were the sample locations used in this study.
b. The independent variables used in this research are workload, work environment and work stress.
c. The number of samples used were 79 respondents.

Suggestions

a. There is a need for further research using other variables that can mediate employee performance, such as job satisfaction.
b. It needs different statements to collect questionnaire sample data if it uses the same variables as this research.
c. There is a need for further research regarding other dimensions and indicators that can influence employee performance.
d. Sampling methods can be done in different ways such as using random sampling.

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