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The Effect of Workload and Work Stress on Employee Performance at the Main Hall of the Pompengan River Area of Jeneberang Makassar

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Abstract

This study aims to examine the effect of workload and work stress on employee performance at the Pompengan Jeneberang River Basin Center in Makassar. The research was motivated by increasing work demands and rising employee absenteeism, which served as organizational indicators requiring further investigation, although absenteeism was not directly assumed to represent a decline in performance. This study employed a quantitative approach involving 104 respondents from a population of 141 employees, with the sample size determined using the Slovin formula. Data were collected through questionnaires, observation, interviews, and documentation, and were analyzed using multiple linear regression with IBM SPSS Statistics 25. The results show that workload has a positive and significant effect on employee performance, while work stress has a negative and significant effect. The coefficient of determination (R^2) of 0.392 indicates that workload and work stress explain 39.2% of the variation in employee performance, while the remaining 60.8% is explained by other factors outside the model. This finding suggests that the model has moderate explanatory power and that employee performance is influenced not only by workload and stress but also by other organizational and individual factors. The findings indicate that a proportional and well-managed workload can support employee productivity, responsibility, and task completion. Conversely, excessive work stress may reduce concentration, work effectiveness, and overall performance. Therefore, public sector organizations need to implement fair workload allocation, clear task distribution, reasonable deadlines, and stress management strategies to maintain employee performance. In conclusion, workload and work stress are important factors associated with employee performance, and their proper management is essential for improving organizational effectiveness.

Keywords: *Employee Performance, Workload, Work Stress*

Introduction

Human resources are a strategic factor in determining the success of an organization because effective human resource development can strengthen employee capacity and organizational competitiveness (Ama et al., 2024). Employees with high performance are able to make optimal contributions to achieving organizational goals, especially when supported by motivation and human resource development programs (Lamama, 2023). Therefore, human resource management is an important aspect that must be considered by management, especially in creating a balance between job demands and employee capabilities (Ama et al., 2024). Individual performance is influenced not only by abilities and skills but also by working conditions, including workload and the level of stress experienced by employees (Saputro et al., 2024; Hasmariani et al., 2024). In recent years, the dynamics of the working world have undergone significant changes due to globalization and technological developments. These

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changes require employees, including those in the public sector, to work faster, more accurately, and more adaptively. Increasing job complexity can directly affect employee performance, particularly when it is not supported by appropriate organizational management and resources (Evans et al., 2024).

Excessive workload is one of the primary factors that can reduce employee performance. Workload that is not managed effectively may decrease work motivation and productivity, resulting in lower organizational performance (Chandra, 2024). In government institutions, high workloads are often not proportional to the available human resources, creating continuous work pressure that affects employee effectiveness and efficiency. In addition to workload, work stress is another important factor affecting employee performance. Prolonged stress can negatively affect employee health, reduce concentration, and lower productivity. Within public sector organizations, work stress frequently arises from high performance expectations, extensive responsibilities, and limited organizational support.

Employee performance in the public sector is crucial because it directly influences the quality of public services delivered to society. High employee performance contributes positively to public satisfaction and organizational effectiveness (Setiawan, 2019). Therefore, identifying factors that influence employee performance is essential for improving organizational outcomes and service quality. Several previous studies have examined the relationship between workload, work stress, and employee performance. Excessive workload can significantly reduce employee productivity and work motivation, particularly when the demands of the job exceed the employee's capacity to manage them effectively (Chandra, 2024). Increasing workload and job complexity may also negatively affect employee performance, especially when organizational support is inadequate (Evans et al., 2024). Furthermore, work stress is an important factor influencing employee performance because prolonged psychological pressure can reduce productivity, concentration, and job satisfaction.

However, the findings of previous studies remain inconsistent. Some studies found that workload directly affects employee performance, whereas others reported that workload influences performance indirectly through increased work stress. In addition, most previous studies were conducted in private companies, educational institutions, or general government offices. Empirical evidence from technical government institutions responsible for water resource management remains limited. Such organizations have unique operational characteristics because employees are required to respond quickly to emergency situations, infrastructure rehabilitation projects, and environmental challenges that increase both workload and stress levels (Putra & Sari, 2025).

Based on these differences, a research gap can be identified. Previous studies generally examined workload and work stress separately or focused on organizations with relatively stable work environments. Limited research has simultaneously analyzed the effects of workload and work stress on employee performance within a government institution responsible for strategic water resource management activities. Consequently, further investigation is needed to provide empirical evidence regarding the relationship between these variables in this specific organizational setting.

The novelty of this study lies in its examination of the simultaneous effects of workload and work stress on employee performance at the Pompengan Jeneberang River Basin Center, Makassar. This institution operates in a project-based environment characterized by emergency response responsibilities, infrastructure rehabilitation activities, and increasing demands for water resource management. Moreover, this study utilizes organizational

attendance data from two consecutive years (2024–2025) as supporting empirical evidence to strengthen the identification of organizational performance issues.

The Pompengan Jeneberang River Basin Center in Makassar is a government institution with a strategic role in water resource management. The institution is responsible for planning, implementing, operating, and maintaining water resource infrastructure, including irrigation systems, flood control facilities, and disaster mitigation infrastructure. The complexity of these responsibilities requires employees to maintain high performance levels under varying working conditions, including emergency situations. Based on preliminary observations conducted during 2024–2025, indications were found of an imbalance between workload and available resources. Approximately 60% of employees reported experiencing a workload increase of 20–30% compared to the previous year due to extreme rainfall conditions and infrastructure recovery projects. This situation has contributed to decreased morale, prolonged fatigue, and increased levels of work stress among employees. These conditions are also reflected in employee attendance records.

This phenomenon is supported by national and international evidence. Data from the Central Statistics Agency (BPS) in 2023 indicated that more than 40% of civil servants experienced work-related stress due to increasing administrative workloads. Furthermore, work stress may explain a substantial proportion of employee performance variation, particularly in project-based organizations operating under high operational demands (ILO, 2022). A complex relationship exists between workload and work stress. High workloads can trigger stress, while excessive stress can reduce employees' ability to complete tasks effectively and maintain performance levels (Putra & Sari, 2025). Understanding this relationship is therefore important, particularly within organizations facing demanding operational conditions. Employees of the Pompengan Jeneberang River Basin Center frequently encounter critical situations requiring rapid responses and effective decision-making, making workload and work stress highly relevant factors influencing performance.

This study adopts a quantitative approach to examine the effects of workload and work stress on employee performance at the Pompengan Jeneberang River Basin Center. Data will be collected through structured questionnaires designed to measure workload, work stress, and employee performance objectively. The empirical evidence from organizational attendance records and preliminary observations indicates that increasing workload may contribute to higher levels of work stress, which in turn can reduce employee performance as reflected by increased absenteeism, tardiness, and reduced work efficiency.

The findings of this study are expected to contribute to the literature on human resource management, particularly within public sector organizations involved in water resource management. In addition, the results are expected to provide practical recommendations for organizational management in developing strategies to manage workload, reduce work stress, improve employee well-being, and enhance organizational performance and public service quality. Based on the background described above, this study aims to examine the effect of workload and work stress on employee performance at the Pompengan Jeneberang River Basin Center, Makassar. Therefore, the study is entitled "The Effect of Workload and Work Stress on Employee Performance at the Pompengan Jeneberang River Basin Center, Makassar."

Method

This study employed a quantitative research approach. Quantitative research is based on the positivist paradigm and is used to examine relationships among variables through statistical analysis of numerical data (Jurnal et al., 2025). This approach was selected because the study aims to analyze the effects of workload and work stress on employee performance. The data collected were numerical and analyzed using statistical techniques with the assistance of SPSS software. The research was conducted at the Pompengan Jeneberang River Basin Center, located at Jl. Sekolah Guru Perawat No. 109, Makassar, South Sulawesi, Indonesia. The study was carried out over a two-month period, from November to December 2025. The data used in this study consisted of primary and secondary data. Primary data were obtained directly from respondents through structured questionnaires designed to measure all research variables. Secondary data were collected from organizational documents, including employee records, organizational profiles, regulations, standard operating procedures (SOPs), attendance records, and other supporting documents available at the Pompengan Jeneberang River Basin Center.

The population consisted of all employees of the Pompengan Jeneberang River Basin Center, comprising 80 civil servants and 61 non-civil servants, for a total population of 141 employees. The sampling technique employed was non-probability sampling, in which not all members of the population have an equal opportunity to be selected as respondents (Sugiyono, 2019; Suliyanto, 2018). The sample size was determined using the Slovin formula with a margin of error of 5%, resulting in a sample of 104 respondents. Data collection techniques included observation, questionnaires, interviews, and documentation. Observation was conducted through direct observation of workplace activities and employee conditions. Questionnaires were distributed directly to respondents using a five-point Likert scale to measure perceptions related to workload, work stress, and employee performance. Interviews were conducted to obtain supporting information regarding working conditions and organizational activities. Documentation was utilized to collect supporting information from organizational archives, attendance records, reports, and institutional documents.

Prior to data collection, the questionnaire instrument underwent expert validation (content validity) to ensure that each item appropriately represented the indicators and constructs being measured. The validation process involved experts in the fields of human resource management and organizational behavior. Recommendations from the experts were incorporated to improve the clarity, relevance, and suitability of the questionnaire items. The validated instrument was subsequently used for data collection. The operational variables examined in this study included workload (X_1), work stress (X_2), and employee performance (Y). Workload refers to the amount of work that must be completed within a specified period and is measured through indicators of work targets, working conditions, and work standards (Munandar, 2010).

Work stress refers to psychological and physiological responses arising from work demands that exceed an individual's capacity and is measured through indicators of task demands, role demands, interpersonal demands, organizational structure, and leadership (Susilo & Wahyudin, 2020). Employee performance refers to the level of work achievement attained by employees based on their abilities and motivation and is measured through indicators of quantity, quality, personality, and timeliness (Rutumalessy, 2023). All variables were measured using a five-point Likert scale.

Data analysis began with descriptive statistical analysis to describe respondent characteristics and research variables (Wibowo, 2012). Instrument testing consisted of validity and reliability tests. The validity test was conducted to determine the extent to which questionnaire items accurately measured the intended constructs. Questionnaire items were considered valid when the correlation coefficient exceeded the minimum acceptable threshold of 0.20. Reliability testing was performed using Cronbach's Alpha to evaluate the consistency of respondents' answers.

Classical assumption tests were subsequently conducted, including normality, multicollinearity, and coefficient of determination (R^2) tests. The normality test was used to determine whether the data were normally distributed (Suwadi et al., 2024). The multicollinearity test was performed to identify potential correlations among independent variables (Gusti Pratiwi et al., 2021). The coefficient of determination (R^2) was used to measure the extent to which workload and work stress explain variations in employee performance (Sri Mayasri & Safona, 2021). The analytical technique employed was multiple linear regression analysis to examine the effects of workload and work stress on employee performance (Indrawati, 2015). The regression model used in this study is expressed as follows:

$$Y = \alpha + b_1X_1 + b_2X_2 + e$$

where Y represents employee performance, X_1 represents workload, X_2 represents work stress, α represents the constant, b_1 and b_2 represent regression coefficients, and e represents the error term.

Hypothesis testing was conducted using the t-test to determine the partial effect of each independent variable on employee performance. If the significance value was less than 0.05, the null hypothesis (H_0) was rejected, indicating that the independent variable had a statistically significant effect on the dependent variable (Purwanto & Sulistyastuti, 2017).

Results

Characteristics Analysis

Characteristics Based on Age

Table 1. Employee Attendance Recap for 2024

Month	Number of Employees	Working Days	Description	Total Absences
Jan	141	22	A S I D	15
Feb	141	20	A S I D	11
Mar	141	23	A S I D	17
Apr	141	20	A S I D	13
May	141	22	A S I D	13
Jun	141	22	A S I D	16
Jul	141	21	A S I D	13
Aug	141	23	A S I D	13
Sep	141	22	A S I D	15
Oct	141	21	A S I D	12
Nov	141	22	A S I D	14
Dec	141	21	A S I D	14
Total				166

Table 1 shows that the employee attendance recap at the Pompengan Jeneberang River Basin Center in 2024 involved 141 employees, with monthly working days ranging from 20 to

23 days. The total number of absences throughout the year reached 166 cases. The highest number of absences occurred in March, with 17 cases, followed by June with 16 cases, while the lowest number was recorded in February, with 11 cases. These data indicate that employee absenteeism fluctuated each month, suggesting the need for continuous monitoring of attendance patterns to support work discipline and organizational performance.

Table 2. Employee Attendance Recap for 2025

Month	Number of Employees	Working Days	Description	Total Absences
Jan	141	22	A S I D	22
Feb	141	20	A S I D	18
Mar	141	23	A S I D	23
Apr	141	20	A S I D	19
May	141	22	A S I D	20
Jun	141	22	A S I D	21
Jul	141	21	A S I D	20
Aug	141	23	A S I D	20
Sep	141	22	A S I D	22
Oct	141	21	A S I D	19
Nov	141	22	A S I D	21
Dec	141	21	A S I D	21
Total				**246**

Based on the data presented above, employee absenteeism increased from 166 cases in 2024 to 246 cases in 2025, representing an increase of approximately 48.2%. This trend indicates increasing work pressure, reflected in higher levels of sickness, leave, and tardiness. Such conditions suggest the presence of work fatigue and stress that may negatively affect employee discipline and productivity.

Table 3 shows the distribution of respondent characteristics based on age.

Table 3. Results of Characteristics Test Based On Age

Age	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 26–30 Years	3	2.9	2.9	2.9
31–35 Years	17	16.3	16.3	19.2
36–40 Years	39	37.5	37.5	56.7
>45 Years	45	43.3	43.3	100.0
Total	104	100.0	100.0	

Based on the research results, the dominant respondents are aged > 45 at 43.3%. This indicates that employees at the Pompengan Jeneberang River Basin Agency Makassar are in a late productive age, characterized by relatively high work experience and more mature decision-making abilities.

Characteristics Based on Gender

Table 4 shows the distribution of respondent characteristics based on gender.

Table 4. Results of Characteristics Test Based on Gender

Gender	Frequency	Percent	Valid Percent	Cumulative Percent
Male	94	90.4	90.4	90.4
Female	10	9.6	9.6	100.0
Total	104	100.0	100.0	

Based on the research results, the majority of respondents are male, amounting to 90.4%. This indicates that employees at the Pompengan Jeneberang River Basin Agency Makassar are dominated by males.

Characteristics Based on Last Education

Table 5 shows the distribution of characteristics based on last education.

Table 5. Results of Characteristics Test Based on Last Education

Education	Frequency	Percent	Valid Percent	Cumulative Percent
High School/Equivalent	64	61.5	61.5	61.5
Bachelor (S1)	39	37.5	37.5	99.0
Master (S2)	1	1.0	1.0	100.0
Total	104	100.0	100.0	

Based on the research results, the majority of respondents have a high school education, amounting to 61.5%. This indicates that employees at the Pompengan Jeneberang River Basin Agency Makassar have a relatively adequate level of education.

Characteristics Based on Length of Service

Table 6 shows the distribution of characteristics based on length of service.

Table 6. Results of Characteristics Test Based on Length of Service

Length of Service	Frequency	Percent	Valid Percent	Cumulative Percent
Less than 5 years	13	12.5	12.5	12.5
6–10 years	11	10.6	10.6	23.1
More than 10 years	80	76.9	76.9	100.0
Total	104	100.0	100.0	

Based on the research results, the majority of respondents have worked for more than 10 years, amounting to 76.9%. This indicates that employees at the Pompengan Jeneberang River Basin Agency Makassar have high work experience.

Characteristics Based on Position

Table 7 shows the distribution of characteristics based on position.

Table 7. Results of Characteristics Test Based on Position

Position	Frequency	Percent	Valid Percent	Cumulative Percent
Staff	52	50.0	50.0	50.0
Others	28	26.9	26.9	76.9
First Expert Water Resources Manager	1	1.0	1.0	77.9
First Expert Archivist	1	1.0	1.0	78.8
POB Bissua	2	1.9	1.9	80.8
Operational Service Operator Sector OP III SDA	1	1.0	1.0	81.7
Operational Service Operator	14	13.5	13.5	95.2
First Expert Public Relations Officer	1	1.0	1.0	96.2
General Operational Manager	2	1.9	1.9	98.1
General Operational Staff	1	1.0	1.0	99.0
Field Supervisor	1	1.0	1.0	100.0
Total	104	100.0	100.0	

Based on the research results, the majority of respondents hold staff positions, amounting to 50%. This indicates that most data were obtained from employees at the operational level.

Descriptive Analysis of Variables

Description of Workload Variable (X1)

Table 8 shows the descriptive analysis of the workload variable (X1).

Table 8. Results of Workload Variable Test (X1)

Question Items	SS(5)		S(4)		N(3)		TS(2)		STS(1)		Total		Average
	F	%	F	%	F	%	F	%	F	%	F	%	
X1.1	37	35,6	61	58,7	5	4,8	0	1	0	0	104	446	4,29
X1.2	9	8,7	29	27,9	35	33,7	26	25	5	33,7	104	323	3,11
X1.3	14	13,5	47	45,2	21	20,2	20	19,2	2	1,9	104	363	3,49
X1.4	15	14,4	62	59,6	19	18,3	8	7,7	0	0	104	396	3,81
X1.5	12	11,5	49	47,1	26	25	13	12,5	4	3,8	104	364	3,50
X1.6	38	36,5	60	57,7	6	5,8	0	0	0	0	104	448	4,31
X1.7	6	5,8	30	28,8	35	33,7	28	26,9	5	4,8	104	316	3,04
X1.8	32	30,8	64	61,5	8	7,7	0	0	0	0	104	440	4,23
X1.9	43	41,3	54	51,9	6	5,8	1	1	0	0	104	451	4,34
Average Workload													3,8

The average total score for Workload (X1) is 3.8. The highest score is found in X1.9 at 4.34, indicating that work standards motivate employees to improve performance. The lowest score is in X1.7 at 3.04, indicating that some respondents still face difficulties in meeting work standards due to high targets, limited resources, heavy workloads, and insufficient facilities.

Description of Job Stress Variable (X2)

Table 9 shows the descriptive analysis of the job stress variable (X2).

Table 9. Results of Job Stress Variable Test (X2)

Question Items	SS(5)		S(4)		N(3)		TS(2)		STS(1)		Total		Average
	F	%	F	%	F	%	F	%	F	%	F	N	
X2.1	25	24	59	56,7	14	13,5	6	5,8	0	0	104	415	3,99
X2.2	35	33,7		55,8	232	7,7	24	2,9	2	0	104	437	4,20
X2.3	8	7,7	29	27,9	35	33,7	28	26,9	4	3,8	104	321	3,09
X2.4	6	5,8	28	26,9	33	31,7	30	28,8	7	6,7	104	308	2,96
X2.5	7	6,7	25	24	30	28,8	36	34,6	6	5,8	104	303	2,91
X2.6	5	4,8	35	33,7	30	28,8	30	28,8	4	3,8	104	319	3,07
X2.7	7	6,7	27	26	25	24	39	37,5	6	5,8	104	302	2,90
X2.8	7	6,7	21	20,2	22	21,2	43	41,3	11	10,6	104	282	2,71
X2.9	6	5,8	38	36,5	37	35,6	19	18,3	4	3,8	104	335	3,22
X2.10	18	17,3	50	48,1	24	23,1	10	9,6	2	1,9	104	384	3,69
Average Work Stress													3,27

The average total score for Job Stress (X2) is 3.27. The highest score is in X2.2, indicating that work demands speed, which becomes a major stress factor. The lowest score is in X2.8 at 2.71, indicating that bureaucratic systems and coordination processes are effective and do not increase stress levels.

Description of Employee Performance Variable (Y)

Table 10. Results of employee performance variable test (Y)

Question Items	SS(5)		S(4)		N(3)		TS(2)		STS(1)		Total		Average
	F	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**N**	
Y1	23	22,1	62	59,6	15	14,4	4	3,8	0	0	104	416	4
Y2	31	29,8	67	64,4	6	5,8	0	0	0	0	104	441	4,24
Y3	24	23,1	68	65,4	9	8,7	3	2,9	0	0	104	425	4,09

Question Items	SS(5)		S(4)		N(3)		TS(2)		STS(1)		Total		Average
	F	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**N**	
Y4	30	28,8	68	65,4	6	5,8	0	0	0	0	104	440	4,23
Y5	38	36,5	61	58,7	4	3,8	1	1	0	0	104	448	4,31
Y6	60	57,7	41	39,4	1	1	2	1,9	0	0	104	471	4,53
Y7	36	34,6	61	58,7	7	6,7	0	0	0	0	104	445	4,28
Y8	24	23,1	57	54,8	13	12,5	8	7,7	2	1,9	104	405	3,89
Average Employee Performance													4,19

The validity test shows that all items are valid with correlation values ranging from 0.5–0.8 and significance values < 0.05. These findings indicate that each questionnaire item has a strong correlation with the total score, confirming its ability to measure the intended construct accurately. The results also demonstrate that the research instrument is valid and reliable, making it suitable for collecting consistent data and supporting the credibility of the subsequent statistical analyses.

Multiple Linear Regression Analysis Results

Table 10 shows the results of multiple linear regression analysis between Workload (X1), Job Stress (X2), and Employee Performance (Y).

Table 10. Results of Multiple Linear Regression Analysis

Coefficients[a]						
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	T	Sig.
1	(Constant)	16.114	2.235		7.209	.000
	Workload	.681	.092	.824	7.386	.000
	Job Stress	-.176	.058	-.340	-3.052	.003
a. Dependent Variable: Employee Performance						

Based on the regression equation Y = 16.114 + 0.681X1 – 0.176X2, the constant value of 16.114 indicates that when workload (X1) and job stress (X2) are equal to zero, employee performance (Y) is predicted to be 16.114. The regression coefficient for workload (X1) is 0.681, which means that every one-unit increase in workload will increase employee performance by 0.681 units, assuming job stress remains constant. Meanwhile, the regression coefficient for job stress (X2) is -0.176, indicating that every one-unit increase in job stress will decrease employee performance by 0.176 units, assuming workload remains constant.

Research Instrument Testing

Validity Test

Table 11. Validity Test Results

Variable	Item	Calculated R	Sig	R Table	Sig	Description
Workload (X1)	X1.1	0,386	0,000	0,1927	0,05	Valid
	X1.2	0,684	0,000	0,1927	0,05	Valid
	X1.3	0,705	0,000	0,1927	0,05	Valid
	X1.4	0,637	0,000	0,1927	0,05	Valid
	X1.5	0,611	0,000	0,1927	0,05	Valid
	X1.6	0,497	0,000	0,1927	0,05	Valid
	X1.7	0,690	0,000	0,1927	0,05	Valid
	X1.8	0,494	0,000	0,1927	0,05	Valid
	X1.9	0,455	0,000	0,1927	0,05	Valid
Job Stress (X2)	X2.1	0,479	0,000	0,1927	0,05	Valid
	X2.2	0,220	0,025	0,1927	0,05	Valid

Variable	Item	Calculated R	Sig	R Table	Sig	Description
	X2.3	0,801	0,000	0,1927	0,05	Valid
	X2.4	0,773	0,000	0,1927	0,05	Valid
	X2.5	0,801	0,000	0,1927	0,05	Valid
	X2.6	0,832	0,000	0,1927	0,05	Valid
	X2.7	0,862	0,000	0,1927	0,05	Valid
	X2.8	0,824	0,000	0,1927	0,05	Valid
	X2.9	0,752	0,000	0,1927	0,05	Valid
	X2.10	0,560	0,000	0,1927	0,05	Valid
Employee Performance (Y)	Y1	0,702	0,000	0,1927	0,05	Valid
	Y2	0,786	0,000	0,1927	0,05	Valid
	Y3	0,734	0,000	0,1927	0,05	Valid
	Y4	0,831	0,000	0,1927	0,05	Valid
	Y5	0,719	0,000	0,1927	0,05	Valid
	Y6	0,614	0,000	0,1927	0,05	Valid
	Y7	0,697	0,000	0,1927	0,05	Valid
	Y8	0,510	0,000	0,1927	0,05	Valid

Based on Table 11, all questionnaire items for the workload (X1), job stress (X2), and employee performance (Y) variables are declared valid. This is shown by the calculated R values of all items, which are greater than the R table value of 0.1927, and the significance values, which are below 0.05. Therefore, all items in the research instrument are suitable for use in further data analysis.

Reliability Test

The reliability test results:

Table 12. Reliability Test Results

Variable	Cronbach's Alpha	N of Items
Workload	0.754	9
Job Stress	0.889	10
Employee Performance	0.829	8

Based on Table 12, the reliability test results show that all variables have Cronbach's Alpha values above 0.70. The workload variable has a Cronbach's Alpha value of 0.754, job stress has 0.889, and employee performance has 0.829. These results indicate that all questionnaire items used in this study are reliable and consistent in measuring each variable.

Classical Assumption Tests

Normality Test

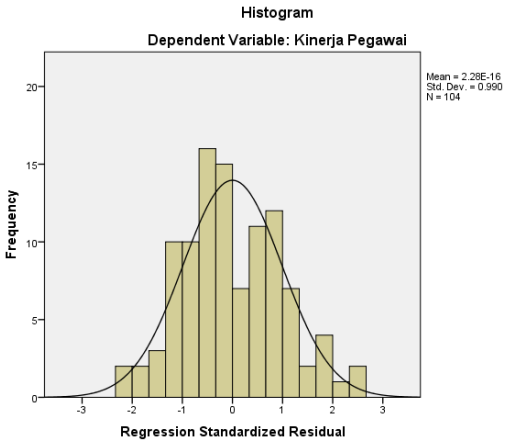

Figure 1. Results of Normality Test

The histogram indicates that the residual data follow a normal distribution, characterized by a symmetrical curve and no significant outliers. This means that the normality assumption has been fulfilled.

Multicollinearity Test

Table 13. Results of Multicollinearity Test

Coefficients[a]			
Model		Collinearity Statistics	
		Tolerance	VIF
1	Workload	0,484	2,065
	Job Stress	0,484	2,065
a. Dependent Variable: Employee Performance			

Source: SPSS 22, 2026

The multicollinearity test was conducted to determine whether there is a strong correlation among independent variables. In this study, the test used the Variance Inflation Factor (VIF) method. Based on Table 13, the VIF values for all independent variables are less than 10, indicating that there is no significant multicollinearity. Thus, the multicollinearity assumption is satisfied.

Heteroscedasticity Test

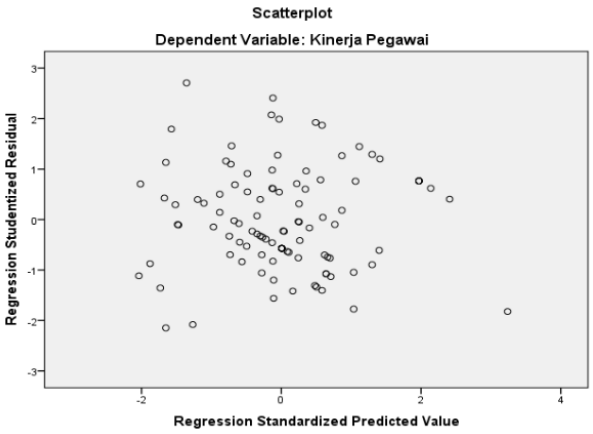

Figure 2. Results of Heteroscedasticity Test

The scatterplot shows that the residual data points are randomly distributed and do not form a clear pattern, either horizontally or vertically. This indicates that there is no heteroscedasticity in the data.

Hypothesis Testing

Partial Test (t-test)

Based on Table 10, the testing of independent variables on the dependent variable can be explained as follows:

Workload on Employee Performance

The t-test results show that the t-count value is greater than the t-table value (7.386 > 1.660), and the significance value is lower than 0.05 (0.000 < 0.05). Therefore, it can be concluded that workload has a positive and significant effect on employee performance. In terms of relationship direction, the regression coefficient shows a positive effect, meaning that an increase in workload within certain limits can actually improve employee performance. This

condition indicates that the workload provided is still at an optimal level, enabling employees to work more productively, remain focused, and be more responsible in completing their tasks.

Job Stress on Employee Performance

The t-test results show that the absolute value of t-count is greater than the t-table value (|−3.052| = 3.052 > 1.660), and the significance value is lower than 0.05 (0.003 < 0.05). Since the regression coefficient is negative, it can be concluded that job stress has a negative and significant effect on employee performance. The negative regression coefficient indicates that job stress has an inverse relationship with employee performance. This means that the higher the level of job stress experienced by employees, the lower their performance tends to be. This occurs because excessive job stress can lead to physical and mental fatigue, reduce concentration, and hinder employees' ability to complete tasks effectively and efficiently.

Coefficient of Determination

Table 14. Results of Coefficient of Determination (R^2) Test

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.626[a]	.392	.380	2.798

a. Predictors: (Constant), Job Stress, Workload

Table 14 presents the results of the coefficient of determination test, which aims to measure how much variance in employee performance can be explained by the variables of workload and job stress. The Model Summary results show that the regression model has a fairly good predictive ability. The R value of 0.626 indicates that the relationship between the independent variables (Workload and Job Stress) and the dependent variable (Employee Performance) is moderate. Furthermore, the R Square value of 0.392 indicates that approximately 39.2% of the variance in employee performance can be explained by workload and job stress. Meanwhile, the remaining 60.8% is influenced by other factors outside the scope of this study.

Discussion

The Effect of Workload on Employee Performance

Based on the results of testing the first hypothesis, it was found that workload has a positive and significant effect on employee performance at the Pompengan Jeneberang River Basin Center, Makassar. Therefore, the first hypothesis (H1) is accepted. This finding is supported by the t-test results, which show that the calculated t-value is greater than the t-table value (7.386 > 1.660), with a significance value of 0.000, which is lower than the significance level of 0.05.

The coefficient of determination analysis shows that workload contributes 39.2% to employee performance, while the remaining 60.8% is influenced by other factors outside the scope of this study. These results indicate that workload is one of the important factors affecting employee performance within the organization.

Workload refers to the amount of work, responsibilities, and tasks that must be completed by employees within a specific period. Employee performance reflects the level of achievement of work results based on duties and responsibilities assigned by the organization.

Appropriate workload management can encourage employees to optimize their abilities and competencies in achieving organizational goals (Zahera, 2020; Widiatmo, 2020).

The positive relationship identified in this study indicates that employees tend to demonstrate better performance when workloads are assigned according to their competencies and capacities. A proportional workload enables employees to focus on achieving work targets, utilize their skills effectively, and complete tasks efficiently. Employees who clearly understand their responsibilities are more likely to perform productively and contribute positively to organizational objectives (Syaiful Anwar et al., 2023).

The findings suggest that workload does not always have a negative impact on employees. Instead, a workload that is distributed fairly and appropriately can increase motivation, responsibility, and commitment to work. Employees often perceive reasonable workloads as challenges that encourage them to improve productivity and achieve better performance outcomes. Consequently, organizations that successfully manage workload distribution can benefit from higher employee effectiveness and improved service quality (Susan, 2019).

The results of this study are consistent with previous research indicating that workload significantly affects employee performance. Employees who are capable of managing assigned workloads effectively tend to demonstrate higher levels of productivity and work achievement. Appropriate workload allocation encourages employees to maximize their potential while maintaining work quality and efficiency (Nabila & Syarvina, 2022).

Similar findings have been reported in other studies, which concluded that workload positively influences employee performance when work demands remain within employees' capabilities. A balanced workload encourages employees to remain focused on organizational objectives and increases their willingness to complete tasks effectively and efficiently (Chandra, 2024).

Furthermore, workload has been found to significantly improve employee performance because it encourages employees to organize work priorities and utilize available resources more effectively. Employees who receive workloads aligned with their job responsibilities are generally more capable of achieving organizational targets and maintaining performance standards (Primawalda et al., 2023).

The findings of this study also support previous evidence showing that workload positively and significantly influences employee performance. Employees who are assigned clear and measurable workloads tend to demonstrate higher productivity and stronger commitment to organizational goals because they understand the expectations associated with their responsibilities (Demak & Simanjuntak, 2021).

Additional evidence suggests that workload contributes positively to employee performance when supported by a strong work ethic and effective organizational management. Proper workload allocation enables employees to maximize their capabilities and achieve optimal work outcomes, thereby improving organizational effectiveness (Shella et al., 2025).

Overall, the findings demonstrate that workload is an important determinant of employee performance. When managed appropriately and aligned with employee capabilities, workload can serve as a motivating factor that enhances productivity, efficiency, and organizational performance (Nabila & Syarvina, 2022; Chandra, 2024; Primawalda et al., 2023).

The Effect of Job Stress on Employee Performance

Based on the results of testing the second hypothesis, it was found that job stress has a negative and significant effect on employee performance at the Pompengan Jeneberang River Basin Center, Makassar. Therefore, the second hypothesis (H2) is accepted. This finding is supported by the t-test results, which indicate a significance value of 0.003, which is lower than the significance level of 0.05.

The coefficient of determination analysis indicates that workload and job stress collectively explain 39.2% of employee performance, while the remaining 60.8% is influenced by other variables not examined in this study. This finding confirms that job stress is one of the important factors affecting employee performance.

Job stress is a condition characterized by physical, emotional, and psychological pressure arising from work demands, responsibilities, organizational expectations, and workplace conditions. Excessive job stress may negatively affect employee concentration, motivation, decision-making ability, and emotional well-being, which ultimately impacts work performance (Maghfirah, 2023; Zulqaidah et al., 2023).

The negative relationship identified in this study indicates that increasing levels of job stress tend to reduce employee performance. Employees experiencing excessive stress often encounter difficulties in maintaining work quality, meeting deadlines, and achieving organizational targets. High stress levels may also lead to fatigue, emotional exhaustion, and reduced job satisfaction, all of which contribute to lower performance outcomes (Edi Jusriadi, 2019).

From a human resource management perspective, employee performance is influenced not only by technical abilities but also by psychological conditions and workplace environments. Organizations that fail to manage employee stress effectively may experience decreased productivity and organizational effectiveness because stressed employees are less capable of performing optimally (Flippo, 2019).

The findings of this study are consistent with previous research demonstrating that job stress negatively affects employee performance. Excessive stress resulting from workload and organizational pressures may reduce employee effectiveness and interfere with the achievement of work objectives. Employees experiencing high levels of stress often demonstrate lower productivity and reduced work quality (Ahmad et al., 2022).

Similar findings have shown that job stress significantly influences employee performance, particularly during periods of increased uncertainty and work pressure. Employees who experience persistent stress tend to encounter difficulties in maintaining motivation and concentration, resulting in declining performance outcomes (Dwi Novita Sari et al., 2022).

The results are also consistent with findings indicating that employees experiencing high levels of job stress generally exhibit lower performance because stress reduces their ability to complete tasks effectively and efficiently. Consequently, organizations should implement strategies to reduce stress and promote employee well-being (Hikmah & Maulana, 2021).

Additional evidence suggests that job stress has a significant negative effect on employee performance. Increased stress levels may reduce employee productivity, commitment, and engagement, thereby affecting organizational effectiveness and overall work outcomes (Indrayana et al., 2024).

Likewise, employees experiencing excessive work pressure often report difficulties in maintaining performance standards and achieving expected results. High stress levels can negatively affect work attitudes and behaviors, ultimately reducing individual and organizational performance (Wa Yuyun et al., 2024).

Further studies have confirmed that job stress is a significant predictor of employee performance. Employees who experience prolonged stress are more likely to demonstrate lower work effectiveness, reduced concentration, and decreased motivation compared to employees working under manageable levels of stress (Wicaksono & Liana, 2024).

Research has also shown that workload and job stress are closely related factors that influence employee outcomes. When job demands exceed employees' capacities, stress levels increase and may negatively affect work satisfaction and performance. Therefore, organizations should pay greater attention to employee well-being and workplace conditions to maintain optimal performance levels (Ridho et al., 2024).

To minimize the negative impact of job stress, organizations should implement effective stress management strategies, including fair workload distribution, supportive leadership, effective communication, and the provision of adequate resources. Such initiatives can enhance employee resilience, improve well-being, and contribute to sustainable organizational performance (Putra & Sari, 2025).

Overall, the findings indicate that workload and job stress are important determinants of employee performance at the Pompengan Jeneberang River Basin Center, Makassar. Workload positively affects employee performance when assigned appropriately according to employee capabilities, whereas job stress negatively affects performance when it exceeds employees' ability to cope with work demands. Therefore, organizations should balance workload allocation and stress management initiatives to create a productive and supportive work environment that promotes optimal employee performance (Indrayana et al., 2024; Wicaksono & Liana, 2024).

Conclusion

This study examined the relationship between workload, job stress, and employee performance at the Pompengan Jeneberang River Basin Center, Makassar. The findings indicate that workload has a positive and significant association with employee performance, with a regression coefficient of 0.681. This suggests that a proportional and well-managed workload may encourage employees to work more effectively, responsibly, and productively. However, this result should not be interpreted as meaning that excessive workload always improves performance. Workload can support performance when it is fairly distributed, clearly directed, and aligned with employee capacity.

The findings also show that job stress has a negative and significant association with employee performance, with a regression coefficient of -0.176. This indicates that higher levels of job stress may reduce employee performance, particularly when employees face excessive pressure, unclear responsibilities, or limited organizational support. In addition, workload and job stress explain 39.2% of the variation in employee performance, meaning that other factors outside this study also contribute to employee performance.

The practical implication of this study is that management should improve workload distribution, clarify job responsibilities, set reasonable deadlines, and provide support systems

to reduce job stress. Regular monitoring of employee workload and stress levels is also important to maintain productivity and work quality.

This study is limited by its cross-sectional design and the use of self-report questionnaire data, so strong causal conclusions cannot be made. The study also focused on one organization and only examined two independent variables. Future research is recommended to include broader samples and additional variables such as leadership, work motivation, compensation, work environment, organizational culture, and employee well-being.

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