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**THE EFFECT OF WORKLOAD AND WORK ENVIRONMENT ON EMPLOYEE PERFORMANCE THROUGH WORK STRESS AS A MEDIATION VARIABLE AT PT DHARMA KYUNGSHIN INDONESIA**



**Fitriya<sup>1</sup>**

**Universitas Swadaya Gunung Jati, Cirebon, Indonesia**

[Fitriya195@gmail.com](mailto:Fitriya195@gmail.com)

**Tita Putri<sup>2</sup>**

**Universitas Swadaya Gunung Jati, Cirebon, Indonesia**

[putriitita13@gmail.com](mailto:putriitita13@gmail.com)

**Sandi Nasrudin Wibowo<sup>3</sup>**

**Universitas Swadaya Gunung Jati, Cirebon, Indonesia**

[sandi.nwibowo@ugj.ac.id](mailto:sandi.nwibowo@ugj.ac.id)

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**Abstract**

The purpose of this study is to study how work environment and workload impact employee performance at PT Dharma Kyungshin Indonesia, with work stress as the main mediating variable. The background of this study deviates from the importance of employee performance to support the productivity and competitiveness of the company, especially in the motorized transportation sector, which produces high production pressure. This study was conducted with a quantitative approach and using descriptive methods. A total of 150 employees were used in this study as samples, a total population of 250 employees. Data analysis techniques used validity, reliability, classical assumptions, regression, and mediation tests. This study identified a significant impact of workload and work environment on work stress. Workload has a large negative impact on employee performance, but the work environment has a large positive effect. However, work stress has a large impact on performance. Work stress does not significantly communicate the relationship between workload and performance. The relationship between work environment and performance can be communicated significantly. In short, company management must pay attention to the distribution of workload and create a supportive work environment to manage work stress and develop employee performance. This study provides theoretical contributions to the development of personnel management and is a practical reference for companies in designing strategies to improve employee services.

**Keywords:** Workload, Work Environment, Work Stress, Employee Performance, Mediation

## INTRODUCTION

Nowadays, performance is very important to be improved in order to be better because if there is a decline in performance, it will result in something that can later cause them to experience physical or psychological conditions. Employee performance is directly related to the productivity and profit of the company because it is the result of the work, process, and dynamics of the company (Amri et al., 2021).

Human Resources (HR) is a part that plays a key role in the company because the good performance produced, the company can achieve the target according to with a planned goals. In organizations and companies, each employee has different performance and employees have unique ways to improve their performance, so all services produced by employees do not always achieve good results (Ramawati & Tridayanti, 2020).

Performance is something that needs to be maintained and developed by every employees everywhere. Being an obligation and necessity with all employees does not mean that the boss or director of the agency has not sought efforts on this issue. Companies need to maintain the highest human resources to carry out their company's activities. Employee performance or performance, namely a group of people in an organization that can be achieved qualitatively and quantitatively according to responsibility, strives to legally complete the company's vision and mission in accordance with the regulations imposed in morality and ethics (Jodie Firjatullah et al., 2023).

Maintenance and development improvement services have a positive impact on the organization or business facility in question. In the case of public institutions, organization can increases trust and gradually increases profits for the company (Judge, 2014).

One of the manufacturing companies such as PT Dharma Kyungshin Indonesia, which operates in the automotive sector and faces high production demands, the dynamics between work stress, workload, work environment, and employee performance are becoming increasingly complex. As a company operating in the automotive sector with high production demands, employees often face significant pressure to meet company targets. This condition can be a trigger for work stress that has an impact on individual and organizational performance as a whole.

In Indonesia, the manufacturing industry is currently facing increasingly complex challenges, ranging from competition with imported products to demands for increasingly high quality standards. PT Dharma Kyungshin Indonesia, as part of the automotive industry supply chain, is required to be able to meet strict product specifications and timely delivery schedules. Optimal employee performance not only supports operational efficiency but also increases the company's competitiveness in the market, especially in meeting high production demands.

Workload is the activities that must be completed by an organization in a certain period of time. Workload can depend on the demands of the job. There are cognitive and physical skills that each individual has (Ahmad et al., 2019). This is also supported by recent research that shows that workload imbalance can lead to reduced workload. Excessive workload can cause several negative impacts such as stress, physical exhaustion, and mental health problems. On the other hand, employees with too light a workload may feel less motivated challenged, which can reduce the morality of what they do. Effective workload management is essential to help employees work optimally without being overly stressed.

In addition to the workload, the work environment also has a major impact on the performance of workers/employees. For management, the company's work environment is very important. This job does not carry out the company's production process, but on the other hand has a big impact on the workplace environment factors. However, currently many companies do not pay much attention to these factors. Employee performance can increase due to a superior work environment such as melodic music, such as trivial music, but in practice it has a major impact on the efficiency and effectiveness of tasks (Magda, 2022). Factors such as lighting, temperature, noise, and employee relations are important aspects of creating a productive work environment. If the work environment is not supportive, employees suffer and experiencing stress that can negatively affect performance.

Work stress is a problem that cannot be ignored in relation to workload, work environment, and employee service. For example, employees who are pressed for unrealistic goals often show symptoms such as emotional exhaustion, poor concentration, and increased work errors. Another submission indicated that stress at work means that physical and mental disorders that employees are prone to and damage the quality of work (De Clercq et al., 2020). If not treated properly, work stress can cause various problems such as, the risk of poor work quality, absenteeism, and physical and mental health. Therefore, understanding the role of work stress variables as mediators is very important for this study.

The selection of PT Dharma Kyungshin Indonesia as a research location is based on the characteristics of the company that represents the manufacturing industry with unique operational challenges. As one of the leading companies in its field, the success of PT Dharma Kyungshin Indonesia is highly dependent on the performance of its employees. Therefore, understanding some of the causes that affect performance in this company can provide valuable insights for management to develop performance improvement strategies.

Increasingly tight global competition requires the manufacturing industry in Indonesia to continue to improve its competitiveness. PT Dharma Kyungshin Indonesia must be able to meet international quality standards and increasingly high efficiency demands. This requires an optimal combination. Human resource capabilities are fundamental assets that determine the quality of a company's output. In the automotive component manufacturing industry that requires high precision, the technical and non-technical capabilities of employees are very important. Employees who have high competence tend to show better performance, with lower production error rates and higher efficiency.

Various previous studies have stated that the work environment and workload have a close relationship with employee performance. However, not many have specifically explored how work stress plays a role as a mediating variable in this relationship. This study attempts to fill this gap by focusing on PT Dharma Kyungshin Indonesia as a case study to explore more deeply how these factors interact with each other.

After the study developed by (Jodie Firjatullah et al., 2023) and (Rohman & Ichsan, 2021), the workload felt by employees significantly affects their performance. Although different opinions are communicated (Ahmad et al., 2019), journalists describe the positive and unimportant results of workload on employee performance.

Study (Ahmad et al., 2019) convey that the employee work environment is positively and significantly related to employee performance. Magazine studies have stated various opinions that a positive work environment for employee performance is not significant (Jodie Firjatullah et al., 2023).

Workload has a significant positive effect on work stress in a study conducted by (Mayestika & Hasmira, 2021) And (Setyowati & Ulfa, 2020), while the research conducted (Aini & Purwaningsih, 2013) stated that the positive results were not significant.

In everyday life in the world of work, work stress and workload are closely related, this happens to employees who have work conditions with very high pressure, so that according to previous research it is interpreted that workload and work stress are positively and significantly related to employee performance. This is agreed by (Rohman & Ichsan, 2021), that work stress has a positive and significant relationship with employee performance, while (Oktaviani & Irmayanti, 2021) gives negative and significant results.

Based on the detailed description of the phenomena mentioned, the researcher wants to develop his research in depth on "The Influence of Workload and Work Environment on Employee Performance Through Work Stress as a Mediating Variable at PT Dharma Kyungshin Indonesia".

## **REVIEW OF LITERATURE**

### **Workload**

According to Sunarso and Kusdidalam (Nabila & Syarvina, 2022), workload is a collection or several activities that must be done by a company or employer within a certain time limit. This can include several activities that must be completed, expected performance, and roles that must be carried out by someone in their workplace (Toipah et al., 2025). When an employee is able to complete his/her task, then it is not a burden. However, if an employee fails or is unable to complete his/her task, then the work becomes a burden (Luh et al., 2025).

### **Work Environment**

The work environment is everything that is around an employee's workplace that can influence how they do the work given to them (Hendryadi, 2019). One way to measure the influence of a good work environment for employees on their performance is to see how their work environment is. A good work environment for employees can be seen by the harmonious relationship established by each coworker, superior, or subordinate, and supported by adequate facilities and infrastructure (Dolonseda & Watung, 2020).

### **Employee Performance**

Performance employee is the real behavior of each person as the performance of work that has been completed by employees in their roles (Ahmad, et.al., 2019). According to Hasibuan and Munasib (Sanusi et al., 2025) Performance is defined as the work results produced by an employee after completing the tasks given to him, which are based on expertise, experience, sincerity, and time. Employees who perform well will have an impact on the success of the company, and vice versa if employees have poor performance, it will have a negative impact on the company, for example, such as losses for the company because the employee cannot work optimally (Zahrah & Yuliana, 2025).

### **Job Stress**

Work stress is a condition where a person is given high work demands outside the job description that must be done (Zahrah & Yuliana, 2025). Job stress can be a negative reaction felt by employees when they feel unable to meet the demands of their work. The causes of job stress experienced can range from tight deadlines to pressure to achieve high targets (Aghitsni & Busyra, 2022). Stress at work causes physical and psychological disorders that

tend to burden employees and damage the quality of their work (De Clercq et al., 2020). Excessive workload and an uncondusive work environment will increase employee stress levels which can inhibits yhe achievement of optimal work. Therefore, work stress in relevant to be used as mediating variable because it can explain the relationship between related variables.

## RESEARCH METHOD

In this research, the researchers applied quantitative methods because they aimed to analyze the relationship between variables and explain the results of the study. The research method used was quantitative research. Quantitative research is a type of study that aims to reach conclusions by using data in the form of numbers (Sugiyono, 2016).

This study includes a quantitative descriptive study to show variables supported by data in the form of numbers from actual conditions in the field. In this quantitative descriptive study, this study has two independent variables: workload (x1) and work environment (x2). The dependent variable in this study is the relationship between employee service (Y) and the existence of variables or independent variables and dependent variables in this study (zillian end variables). The population of this study has 250 pt Dharma Kyungshin Indonesia, with a sample of 150 employees at Pt Dharma Kyungshin Indonesia.

## RESULTS AND DISCUSSION

### Validity Test

Indicator	R table	R count	Conclusion
X1_1	0.1603	0.770	Valid
X1_2	0.1603	0.753	Valid
X1_3	0.1603	0.712	Valid
X1_4	0.1603	0.768	Valid
X1_5	0.1603	0.711	Valid
X1_6	0.1603	0.729	Valid
X1_7	0.1603	0.714	Valid
X2_1	0.1603	0.773	Valid
X2_2	0.1603	0.749	Valid
X2_3	0.1603	0.739	Valid

X2_4	0.1603	0.786	Valid
X2_5	0.1603	0.709	Valid
X2_6	0.1603	0.701	Valid
X2_7	0.1603	0.733	Valid
Z1.1	0.1603	0.654	Valid
Z1.2	0.1603	0.663	Valid
Z1.3	0.1603	0.608	Valid
Z1.4	0.1603	0.664	Valid
Z1.5	0.1603	0.635	Valid
Z1_6	0.1603	0.705	Valid
Z1_7	0.1603	0.725	Valid
Z1_8	0.1603	0.774	Valid
Z1_9	0.1603	0.733	Valid
Z1_10	0.1603	0.710	Valid
Z1_11	0.1603	0.751	Valid
Z1_12	0.1603	0.738	Valid
Y1_1	0.1603	0.743	Valid
Y1_2	0.1603	0.663	Valid
Y1_3	0.1603	0.777	Valid
Y1_4	0.1603	0.789	Valid
Y1_5	0.1603	0.664	Valid
Y1_6	0.1603	0.656	Valid
Y1_7	0.1603	0.645	Valid
Y1_8	0.1603	0.615	Valid

The results of the validity test obtained a correlation figure (r count) which turned out that all the statement results were greater when compared with the required r table of 0.1603. This will allow it to be used for further analysis.

Variables	Cronbach's Alpha	Conclusion
X1	0.860	Realizable
X2	0.863	Realizable
Z	0.904	Realizable
Y	0.847	Realizable

### Reability Test

According to Gozali, the threshold for reliability is 0.70 to be able to say that the variable is reliable and based on the reliability test data, all variables exceed the threshold of 0.7, thus the data can be said to be reliable.

**Classical Assumption Test**  
**Multicollinearity Test**

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients		Collinearity Statistics		
		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	33,372	3,178		10,500	,000		
	Workload	-,556	,087	-,530	-6,406	,000	,148	6,749
	Work environment	,307	,075	,299	4,071	,000	,188	5,311
	Job Stress	-,085	,060	-,127	-1,410	,161	,126	7,948

a. Dependent Variable: Employee Performance

Because the Tolerance value > 0.100 and VIF < 10,000, it can be ascertained that there are no symptoms of multicollinearity.

**One-Sample Kolmogorov-Smirnov Test**

		Unstandardized Residual
N		150
Normal Parameters <sup>a,b</sup>	Mean	,0000000
	Std. Deviation	1,40078215
Most Extreme Differences	Absolute	,067
	Positive	,045
	Negative	-,067
Test Statistic		,067
Asymp. Sig. (2-tailed)		,097 <sup>c</sup>

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction

**Normality Test**

Since the Asymp. Sig. (2-tailed) value is 0.097 > 0.05, it can be assumed that the data is normally distributed.

**Heteroscedasticity Test**

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2,608	2,014		1,295	,197
	Workload	,023	,055	,091	,426	,670
	Work environment	-,042	,048	-,167	-,883	,379
	Job Stress	-,025	,038	-,154	-,666	,507

a. Dependent Variable: ABS RES

Because the Sig. value on Workload is  $0.670 > 0.05$ . Work Environment is  $0.379 > 0.05$ , and Work Stress is  $0.507 > 0.05$ , it means that the data does not show Heteroscedasticity symptoms or the assumption of the Heteroscedasticity test has been met.

**Autocorrelation Test**

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,923 <sup>a</sup>	,852	,849	1,41510	1,834

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

b. Dependent Variable: Employee Performance

Because the Durbin-Watson value is 1.834 where  $DL < DW < (4-DU)$  or  $1.706 < 1.834 < 2.240$ , the results show that the data does not experience autocorrelation.

**T Test**

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	27,807	3,709		7,498	,000
	Workload	,904	,093	,577	9,724	,000
	Work environment	-,597	,091	-,389	-6,564	,000

a. Dependent Variable: Job Stress

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	33,372	3,178		10,500	,000
	Workload	-,556	,087	-,530	-6,406	,000
	Work environment	,307	,075	,299	4,071	,000
	Job Stress	-,085	,060	-,127	-1,410	,161

a. Dependent Variable: Employee Performance

**Hypothesis Testing and Conclusion Making Stage**

- Analyzing the impact of workload on work stress  
 Received significant value for workload  $0.000 < 0.05$ . Therefore, we can draw conclusion
- Analysis of the influence of work environment conditions on work stress  
 Accepting the importance of the work environment  $0.000 < 0.05$ . This result indicates the existence of significant direct influence of work environment conditions on work stress.
- Analyzing the impact of workload on employee performance  
 Received a significant value for workload  $0.000 < 0.05$ . Therefore, we can conclude that critical workload has a direct impact on employee performance.
- Analysis of the impact of the work environment on employee performance  
 Accepting the importance of work environment  $0.000 < 0.05$ . Therefore, it is possible to conclude that work environment conditions have a significant effect on employee performance. We accept a significant value for work stress  $0.161 > 0.05$ . Therefore, it can be assumed that there is no significant effect of work stress on employee performance.
- Analyzing the effect of workload due to work pressure on employee performance  
 The value of  $-0.530$  is the direct impact of workload on employee performance. The indirect impact of workload work pressure on employee performance, the output of the

multiplication between the beta value of work stress for employee service and the beta value of workload for the beta value, e.g.  $0.577 \text{ raw } -0.127 = -0.073$ . Second, the overall effect of workload on employee productivity is the direct and indirect effects, e.g.:  $(-0.530) + (-0.073) = -0.603$ . The calculation results above show that the direct effect value is greater than the indirect effect. These results indirectly state that workload, work stress are not significantly related to employee performance.

- Analyze the impact of the work environment to ensure that services are functioning by employee services.

The work environment is proven to have a direct influence on employee performance of 0.299. Meanwhile, the indirect influence of the work environment on employee performance is large, namely:  $-0.389 \text{ RAW } -0.127 = 0.049$ . The result is 0.348 as the overall impact of work environment conditions on employee performance. From the previous calculation, it is shown that the direct effect value is smaller than the indirect effect. This study shows that work environment conditions have a significant indirect impact on employee performance through work stress.

## CONCLUSION

Conclusion from This study aims to determine the effect of workload and work environment on employee performance, with work stress as a mediating variable at PT Dharma Kyungshin Indonesia. Workload has a significant relationshipsignificant positive on work stress. The higher the workload, the greater the impact on increasing employee work pressure. In addition, the condition of the work environment is proven to have a significant positive correlation with work stress. An unfavorable work environment increases the likelihood of stress in employees. Workload has a significant negative effect on employee performance. Too high a workload will result in poor performance. The work environment has a significant positive impact on worker performance. A good work environment can help employees improve their performance. Work stress does not have a significant effect on employee performance. Workload Performance Relationship: Work stress is poorly communicated. The direct effect is greater than the indirect effect. Relationship with the work environment for performance: Work stress communicates this relationship significantly. A poor work environment increases work stress and negatively affects performance.

In this case, company management should pay attention to the distribution of workload to avoid causing excessive stress that negatively affects productivity. A physically and psychologically comfortable work environment should be prioritized to maintain and develop performance. Managers are advised to do periodic evaluation of task distribution and deadlines, as well as taking into account capacity individual employees so that overwork does not occur which leads to work stress. Strategy human resource management that can be recommended such as the implementation of the implementation stress management programs such as counseling or mindfulness training, work flexibility, realistic performance-based reward system, as well as improvements to the work environment such as lighting, ventilation, and comfort of the work space.

This study has several limitations that need to be considered, such as only conducting a study on one company with a cross-time design, so that generalizations can be made the results in other companies or different industry sectors are limited. For research furthermore,

it is recommended to conduct research on various companies in the industrial sector different to broaden the generalization of the results. Researchers can also explore the variables other mediations such as social support or leadership style to get a picture which is more comprehensive regarding the relationship between related variables

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