

## The Effect of Non-Physical Work Environment, Motivation, and Workload on Employee Performance with Job Satisfaction as an Intervening Variable on Perum DAMRI MAC Bus Drivers

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### Keywords

Non-Physical Work Environment  
Motivation  
Workload  
Employee Performance  
Job Satisfaction

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### ABSTRACT

Employee performance refers to the level of success or work results achieved by an individual in carrying out their duties and responsibilities over a certain period, measured based on standards or targets set by the organization. The purpose of this study was to analyze the effect of the non-physical work environment, motivation, and workload on employee performance, with job satisfaction as an intervening variable in \*The Effect of Non-Physical Work Environment, Motivation, and Workload on Employee Performance with Job Satisfaction as an Intervening Variable on Perum DAMRI MAC Bus Drivers\*. The research method used in this study was a quantitative approach with descriptive and verification designs. Data collection techniques included interviews, questionnaires, and observations, with a population of 90 drivers. The sampling technique used was non-probability sampling with census sampling. The analytical tool used in this study was SmartPLS 4 for structural equation modeling analysis. Measurement model (outer model) evaluation included convergent validity, discriminant validity, Average Variance Extracted (AVE), composite reliability, and Cronbach's alpha. The structural model (inner model) was assessed using the coefficient of determination ( $R^2$ ) and predictive relevance ( $Q^2$ ). The results of the study indicate that the non-physical work environment and motivation have a positive and significant effect on job satisfaction partially, while workload has no significant effect on job satisfaction. Workload and job satisfaction have a positive and significant effect on employee performance, while the non-physical work environment and motivation do not have a significant effect on employee performance partially. Simultaneously, the model explains 76.1% of the variance, while the remaining 23.9% is influenced by other factors. Job satisfaction is able to mediate the relationship between the non-physical work environment and motivation on employee performance, but it does not mediate the effect of workload on employee performance.

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### INTRODUCTION

The land transportation sector is the backbone of national connectivity and a driver of economic growth. Data from the Ministry of Transportation (Kemenhub) in 2025 show that

road transportation contributes 87% of passenger movement and 91% of goods movement, with a total of 1.8 billion bus passengers per year. In the era of modal integration, intermodal competition, and demands for zero accidents, employee performance—especially drivers—is a primary determinant of service quality, safety, and the sustainability of the transportation business. KNKT data from 2020–2025 show that 72% of intercity bus accidents are caused by human error, such as fatigue (41%), speed violations (23%), lack of anticipation (18%), and microsleep (12%). The national bus accident rate reaches 0.38 per 100,000 km, still far from the ASEAN benchmark of 0.15. The economic impact of one fatal bus accident reaches IDR 1.8–2.5 billion, excluding reputational losses. In terms of service quality, the Indonesian Consumers Foundation (YLKI) recorded a 2024 bus satisfaction index of only 3.68/5.0, the lowest compared to trains (4.21) and airplanes (4.35). The most common complaints were delays (34%), reckless driving (29%), unfriendly bus crews (21%), and extortion (9%). Consequently, the load factor for intercity and regional (AKAP) buses declined by an average of 8% as passengers shifted to travel agencies, trains, or airplanes.

Perum DAMRI, a state-owned land transportation company, holds a Public Service Obligation mandate to serve pioneer routes, intercity and regional (AKAP) routes, intercity and regional (AKDP) routes, and airport transportation. Statistics Indonesia (BPS) data for 2025 recorded national bus passengers reaching 1.2 billion people annually, with DAMRI's share at 18.3%. Amid competition from travel agencies, private intercity and regional (AKAP) operators, and online transportation services, driver performance is a key determinant of service quality, safety, and the image of the state-owned enterprise. According to the 2025 DAMRI Performance Report, Pulogadung serves 18.7 million passengers annually, contributing 23% of DAMRI's national revenue. Amid the integration of JakLingko and competition from private intercity buses, airport trains, and online transportation, driver performance is a critical factor determining safety, OTP (On-Time Performance), and the satisfaction of 40–60 passengers per bus per day. However, DAMRI Pulogadung operational data from 2023 to 2025 show a declining performance trend. According to Mathis and Jackson (in Yuniarti et al., 2021:2), performance is a process carried out by an individual over a certain period of time. The performance data for the 2023–2025 period are as follows:

**Table 1. Performance Period 2023-2025**

Aspek	Tahun 2023	Tahun 2024	Tahun 2025	Target BUMN
On Time Performance	91%	87%	82%	≥95%
Accident rate/100.000 km	0,31	0,38	0,46	≤0,25
Customer complaint	4,2%	5,8%	7,1%	≤3%
Ritase Hilang karena SDM	1,3%	2,1%	3,4%	≤1%

Source: Internal Data from Perum DAMRI, 2026

Table 1.1 shows that On-Time Performance dropped from 91% to 82%, below the BUMN KPI of ≥95%. The accident rate increased from 0.31 to 0.46 per 100,000 km, exceeding the Ministry of Transportation's safety limit of 0.25. Customer complaints on the DAMRI App for the Pulogadung corridor increased from 4.2% to 7.1%. The main complaints were delays (36%), aggressive driving (31%), air conditioning failure/uncomfortable (18%), and the cancellation rate due to driver absence reached 2.8%. Furthermore, lost trips due to human

resources increased from 1.3% to 3.4%. If performance is not improved, DAMRI faces four risks: regulatory, business, reputational, and human resources. Regulations such as an accident rate  $>0.25$  require a special audit under PM 108/2017, and route permits can be suspended. Business, such as an 86.4% OTP, causes passengers to switch to other modes, resulting in a loss of Rp4.2 billion in revenue by 2025. The reputation and image of state-owned transportation companies is being eroded. Finally, human resources, such as a 17% annual turnover rate, mean the cost of recruiting and training one driver is approximately Rp12 million. The decline in OTP and a 48% increase in the accident rate in two years indicate problems with driver performance as the spearhead of operations. Law No. 22/2009 concerning LLAJ requires public transportation drivers to meet safety standards and excellent service. In addition to the aforementioned data, there is also data on DMR route orders for the period February to April 2026.



**Picture 1.**  
**Route Order Data for February to April 2026**

Source: Perum DAMRI, 2026

The following is your proofread version with corrected grammar, punctuation, consistency, technical wording, and improved academic tone. The cited sources are retained, and the requested title is italicised.

Picture 1.1 shows that route order data fluctuate from week to week. The demand for fulfillment orders for each corridor is lowest in the first week of February and continues to increase until the first week of March. However, the demand for fulfillment orders then decreases until the third week of March and subsequently increases again in the following weeks. The demand for fulfillment orders for each corridor reaches its highest level in the first week of April, approaching its maximum capacity. However, demand declines in the second week of the same month and continues to decrease until the fourth week of April. This indicates that driver performance also fluctuates weekly and requires improvement to achieve the company's expected performance.

Driver performance is influenced by job satisfaction. According to Kinicki & Fugate (in Lubis et al., 2023:28), job satisfaction is an affective and emotional response to various aspects of one's work. Interviews with several DAMRI bus drivers revealed that many drivers still feel dissatisfied or "disappointed" with their coordinators. Furthermore, social jealousy

creates a sense of unfairness among drivers, leading them to ignore standard operating procedures (SOPs) even when receiving the same compensation or salary, to engage in reckless behavior, and to disregard complaints. However, some drivers feel valued and satisfied, prioritizing passenger comfort and safety even on challenging routes.

This finding aligns with research conducted by Saban (2024), Chandra et al. (2024), and Aliya & Ardila (2024), which shows that job satisfaction significantly impacts performance. This finding is further supported by research conducted by Sibagariang et al. (2025) and Sinaga & Zairnati (2025), which demonstrates a positive and significant effect on performance.

Fieldwork demonstrates the complexity of driver satisfaction. First, the non-physical work environment, characterized by a “pay-for-delivery” culture, remains dominant in both private and state-owned bus companies. Sixty-one percent of drivers admitted that their superiors focus only on revenue targets and provide minimal safety briefings. The trip-based incentive system encourages speeding and overloading. Sedarmayanti (in Tjahyanti et al., 2026:19) explained that the non-physical work environment is a situation related to work relationships, such as relationships with superiors or fellow colleagues.

Interviews with several DAMRI bus drivers revealed that many drivers felt they only communicated with their coordinators when problems occurred. This resulted in minimal communication even when no issues were present. Some drivers rarely speak with their coordinators or supervisors, preferring to communicate with fellow DAMRI bus drivers. Appreciation is minimal, with praise or performance-based bonuses rarely provided. The scheduling system is perceived as unfair, with many senior drivers assigned to “wet” routes, while junior drivers are assigned to less demanding “pioneer” routes, leading to social jealousy. Furthermore, the “pay first, safety second” culture persists due to revenue pressure. The relationship between the non-physical work environment and job satisfaction is also supported by research conducted by Pratama & Badar (2023), which shows that the non-physical work environment significantly influences job satisfaction. This is further supported by Al Junaid et al. (2025), who found that the non-physical work environment has a positive and significant influence on job satisfaction.

Second, motivation factors such as the take-home pay of AKAP bus drivers of IDR 4.5–7 million per month are not commensurate with the risks associated with transporting 40–60 passengers, 12–14 working hours, and the absence of a clear career path. National bus driver turnover is 21% per year, twice that of the logistics industry. Work motivation, according to Nurhayati (2024:1), is the drive that encourages individuals to perform their work with enthusiasm, diligence, and maximum effort. Based on interviews with several DAMRI bus drivers, the basic salary consists of UMP plus trip incentives; however, 73% of drivers feel that incentives are not commensurate with road risks and long working hours that cause fatigue. In addition, career progression is limited or nonexistent. Many drivers feel stuck in their positions despite years of service, with very few promotions to supervisor or coordinator roles. Non-financial rewards are minimal and often overlooked. In 2024, exemplary drivers received only certificates without incentives or public recognition. As a result, discretionary effort is low, and many drivers believe that as long as the bus operates and arrives safely, additional service effort is unnecessary.

This aligns with research conducted by Priyatno & Yuliana (2025), Toipah & Ariawan (2025), and Noviani & Siddiq (2025), which shows that motivation significantly influences job satisfaction. This finding is further supported by Widhyani & Murniyati (2026), which demonstrates that motivation has a positive and significant effect on job satisfaction.

Third, extreme workload is a major issue. Law No. 22/2009 limits driving to 8 hours per day with a 30-minute break every 4 hours. In reality, a 2024 BPTJ survey of 1,200 Jabodetabek drivers found that 68% drive more than 10 hours per day, 57% sleep less than 5 hours per day, and 44% also work as conductors. According to Siagian et al. (2025:58), workload refers to the amount of work or tasks assigned to an employee that must be completed within a certain period. Workload can be physical or mental, and it is the employee's responsibility to complete it.

Based on interviews with several DAMRI bus drivers, many reported that workload is excessively high, including 12–14 working hours per day, causing fatigue and sleep deprivation, especially when traffic congestion prevents timely completion of trips. Pollution and damaged roads also increase workload, as drivers are exposed for long periods. In addition, older AKAP buses (more than 8 years old), damaged roads, and non-ergonomic seating often cause back pain. Furthermore, even a 5-minute delay can result in sanctions (SP), which creates emotional stress among drivers. Additional pressures include full passenger loads, heat, frequent AC complaints, underpayment issues, and careless passenger behavior when requesting stops. Beyond operational pressures, drivers are responsible for passenger lives and company assets valued at more than IDR 2 billion.

The burden of deposits and trip targets is also strongly felt. Drivers receive a base salary (UMP) plus incentives of IDR 15,000–25,000 per trip. To earn IDR 6 million per month, drivers must complete  $8 \text{ trips} \times 26 \text{ days} = 208 \text{ trips}$  per month. As a result, drivers tend to “chase trips” by speeding, cutting rest time, eating on the road, and sometimes losing IDR 25,000 for failed trips. The “mandatory deposit” culture still exists on some non-BRT routes. Additionally, administrative burdens such as monitoring harsh braking, overspeeding, and idling for more than 15 minutes are automatically reported to coordinators. Drivers feel they are under constant “24-hour CCTV surveillance,” which contributes to stress. Manual reporting such as cash deposits, manifests, and trip sheets also consumes time. Some senior drivers are less familiar with digital systems, leading to anxiety over errors, system range limitations, and breakdown risks on toll roads.

This is in line with research conducted by Sunanda et al. (2025), Toipah & Ariawan (2025), and Noviani & Siddiq (2025), which shows that workload significantly influences job satisfaction. This is also supported by Selisia et al. (2026), which demonstrates that workload has a positive and significant effect on job satisfaction.

## **METHOD**

The research method used in this study was a quantitative research method with a descriptive and verification approach. According to Sahir (2021:6), quantitative research methods involve relatively large sample sizes, with the research process carried out systematically. Hardani et al. (2020:249) stated that verification research aims to test the validity of a phenomenon or proposed hypothesis.

The analysis method used was Structural Equation Modelling (SEM) with the Partial Least Squares (PLS) approach using SmartPLS software. This approach was selected because the study involved latent constructs, tested structural and mediation relationships, and was suitable for relatively small sample sizes. The data sources in this study consisted of primary and secondary data. Data collection techniques included interviews, questionnaires, and observation.

## RESULT AND DISCUSSION

### Measurement Model (Outer Model)

According to Junaidi (2018:42), a measurement model functions to measure the strength of the structure of the dimensions that form a factor/variable/construct. The main objective of assessing the measurement model is to determine the validity and reliability of the measuring instrument (questionnaire) used. A measurement model is a modeling process in research aimed at investigating the unidimensionality of indicators that explain a latent variable/construct. Measurement models relate to factors/variables/constructs, both endogenous and exogenous. The analysis carried out is actually the same as factor analysis, only here it analyzes relationships. Researchers begin their research by first determining several variables that can be considered to be able to solve multidimensional problems, including their indicators to confirm the model. The measurement model will produce an assessment of convergent validity, discriminant validity, and reliability. Testing of the measurement model or outer models in this study is as follows:

#### a. Validity

**Table 2. Outer Loading**

	Beban Kerja	Kepuasan Kerja	Kinerja Karyawan	Lingkungan Kerja Non Fisik	Motivasi
X11				0,896	
X12				0,852	
X13				0,860	
X21					0,879
X22					0,812
X23					0,846
X24					0,832
X25					0,803
X31	0,938				
X32	0,948				
Y1		0,901			
Y2		0,805			
Y3		0,732			
Y4		0,709			
Y5		0,876			
Z1			0,827		
Z2			0,789		
Z3			0,832		

Source: SmartPLS Output, 2026

Based on Table 4.1, it can be concluded that the outer loadings in this study were all above 0.7. According to Barclay et al. (in Santosa, 2018:83) the minimum value of the outer loading of an indicator is 0.707, meaning that  $0.72 \approx 50\%$  of the variability of an indicator

can be explained or absorbed by its latent variables. Therefore, the indicators of non-physical work environment (X1), motivation (X2), workload (X3), job satisfaction (Y), and employee performance (Z) are declared valid.

**Table 3. AVE**

	Average Variance Extracted (AVE)
Beban Kerja	0,890
Kepuasan Kerja	0,653
Kinerja Karyawan	0,666
Lingkungan Kerja Non Fisik	0,756
Motivasi	0,697

Source: SmartPLS Output, 2026

Based on Table 4.2, it can be concluded that the AVE values in this study are all above 0.5. According to Hair et al. (in Santosa, 2018:83), using the same logic to determine the outer loading value, an AVE value of 0.5 or greater indicates that the construct explains more than half of the variance derived from its indicators. Therefore, the indicators of non-physical work environment (X1), motivation (X2), workload (X3), job satisfaction (Y), and employee performance (Z) are declared valid.

**Table 4. Cross-Loading**

	Beban Kerja	Kepuasan Kerja	Kinerja Karyawan	Lingkungan Kerja Non Fisik	Motivasi
X11	0,664	0,790	0,677	0,896	0,749
X12	0,438	0,766	0,605	0,852	0,717
X13	0,494	0,639	0,502	0,860	0,588
X21	0,450	0,863	0,669	0,762	0,879
X22	0,809	0,742	0,721	0,678	0,812
X23	0,582	0,795	0,659	0,641	0,846
X24	0,460	0,747	0,689	0,623	0,832
X25	0,435	0,702	0,664	0,605	0,803
X31	0,938	0,666	0,615	0,623	0,640
X32	0,948	0,632	0,761	0,544	0,600
Y1	0,482	0,901	0,645	0,758	0,821
Y2	0,784	0,805	0,720	0,796	0,720
Y3	0,453	0,732	0,717	0,488	0,652
Y4	0,540	0,709	0,650	0,584	0,690
Y5	0,501	0,876	0,658	0,768	0,836
Z1	0,468	0,814	0,827	0,681	0,794
Z2	0,778	0,559	0,789	0,416	0,529
Z3	0,564	0,665	0,832	0,582	0,656

Source: SmartPLS Output, 2026

Based on Table 4.3, it can be concluded that the cross-loadings in this study were all above 0.710. Barclay et al. (in Santosa, 2018:84) state that the loading value of an indicator for a construct must be greater than the loading value of that indicator for another construct, or for all indicators, the value must be at least 0.710, which means it exceeds the criteria. Although the Y4 indicator was still below 0.710, it was still greater than 0.7 and greater than the other cross-loading values. Therefore, the non-physical work environment (X1), motivation (X2), workload (X3), job satisfaction (Y), and employee performance (Z) indicators were declared valid.

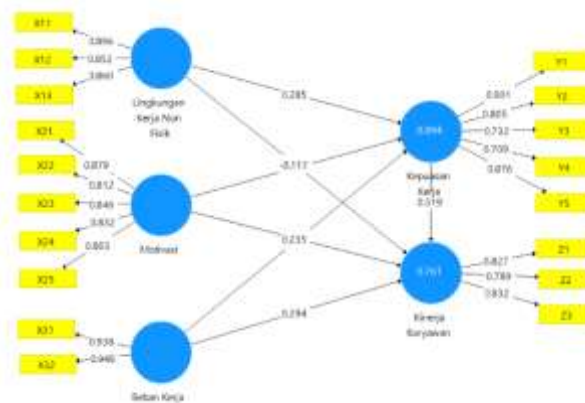
**b. Reliability**

**Table 5. Composite Reliability and Cronbach's Alpha**

	Cronbach's Alpha	Composite Reliability
Beban Kerja	0,876	0,942
Kepuasan Kerja	0,864	0,903
Kinerja Karyawan	0,749	0,857
Lingkungan Kerja Non Fisik	0,840	0,903
Motivasi	0,891	0,920

Source: SmartPLS Output, 2026

Based on Table 4.4, it can be concluded that the Composite Reliability and Cronbach's Alpha in this study were all above 0.7. According to Fornell et al. (in Santosa, 2018:152), item reliability is considered adequate if the correlation between an indicator and its latent variable is at least 0.7. George and Mallery (in Santosa, 2018:153) state that the minimum Cronbach's alpha value is 0.7. Therefore, the variables non-physical work environment (X1), motivation (X2), workload (X3), job satisfaction (Y), and employee performance (Z) are declared reliable. The following is an illustration of the outer model in this study.



**Picture 2. Measurement Model (Outer Model)**

Source: SmartPLS Output, 2026

**Structural Model (Inner Model)**

According to Junaidi (2018:94), the relationships between variables in SEM form a structural model. This structural model can be explained through structural equations, similar to those in regression analysis. These structural equations describe the predictions of latent (exogenous) independent variables on latent (endogenous) dependent variables. The structural model or inner model tested in this study are:

**Table 6. Coefficient of Determination (R<sup>2</sup>)**

	R Square	R Square Adjusted
Kepuasan Kerja	0,894	0,890
Kinerja Karyawan	0,761	0,750

Source: SmartPLS Output, 2026

Based on Table 4.5, it can be concluded that the coefficient of determination for the employee performance variable in this study is 0.842, while the coefficient of determination for customer satisfaction is 0.805. The coefficient of determination formula is as follows:

$$KP = R^2 \times 100\%$$

$$KP \text{ Job Satisfaction} = 0.894 \times 100\% = 89,4\%$$

$$KP \text{ Employee Performance} = 0.761 \times 100\% = 76,1\%$$

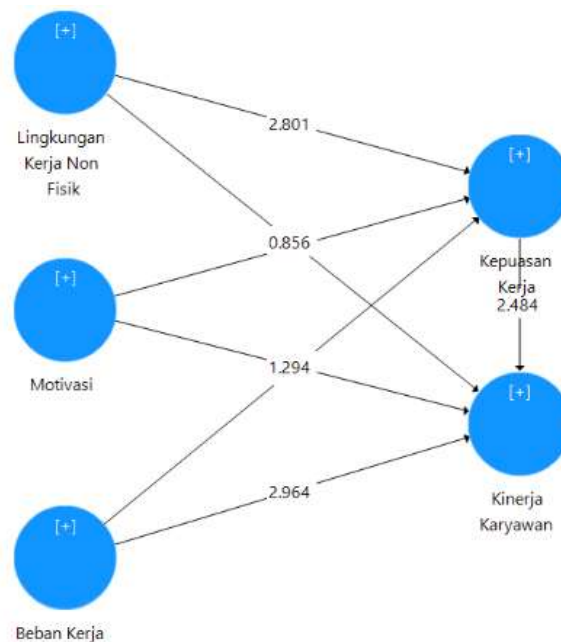
According to Sahir (2021:54), the coefficient of determination, often symbolized by  $R^2$ , essentially measures the extent of the influence of the independent variables on the dependent variable. Therefore, it can be concluded that the influence of non-physical work environment (X1), motivation (X2), and workload (X3) on job satisfaction (Y) is 89,4%, while the influence of non-physical work environment (X1), motivation (X2), workload (X3), and job satisfaction (Y) on employee performance (Z) is 76,1%.

$$Q^2 = 1 - (1 - (R_{square})^2)$$

$$Q^2 \text{ Job Satisfaction} = 1 - (1 - (0,894)^2) = 0,80$$

$$Q^2 \text{ Employee Performance} = 1 - (1 - (0,761)^2) = 0,58$$

According to Santosa (2018:97), the assessment of  $Q^2$  values uses the stipulation that if the  $Q^2$  value is greater than 0, a particular endogenous construct has predictive relevance. If the  $Q^2$  value is equal to or less than 0, it indicates no predictive relevance. Therefore, it can be concluded that the construct has predictive relevance, as the  $Q^2$  value is greater than 0, indicating that a particular endogenous construct has predictive relevance. The following is an illustration of the inner model in this study:



**Picture 3. Structural Model (Inner Model)**

Source: SmartPLS Output, 2026

### Hypothesis Testing

According to Sahir (2021:26), hypothesis testing aims to find the final answer to research questions using appropriate methods. If the hypothesis aligns with the facts, it is called confirmation. A significance value greater than 0.05 means  $H_0$  is accepted and  $H_a$  is

rejected. If the significance value is less than 0.05,  $H_0$  is rejected and  $H_a$  is accepted. The following table shows the direct and indirect variables in this study.

**Table 7. Direct and Indirect**

	T Statistics ( O/STDEV )	P Values	$H_a$
Beban Kerja -> Kepuasan Kerja	1,443	<b>0,150</b>	<b>Ditolak</b>
Beban Kerja -> Kinerja Karyawan	2,807	<b>0,005</b>	<b>Diterima</b>
Kepuasan Kerja -> Kinerja Karyawan	2,664	<b>0,008</b>	<b>Diterima</b>
Lingkungan Kerja Non Fisik -> Kepuasan Kerja	2,964	<b>0,003</b>	<b>Diterima</b>
Lingkungan Kerja Non Fisik -> Kinerja Karyawan	0,959	<b>0,338</b>	<b>Ditolak</b>
Motivasi -> Kepuasan Kerja	5,899	<b>0,000</b>	<b>Diterima</b>
Motivasi -> Kinerja Karyawan	1,294	<b>0,196</b>	<b>Ditolak</b>
Beban Kerja -> Kepuasan Kerja -> Kinerja Karyawan	1,385	<b>0,167</b>	<b>Ditolak</b>
Lingkungan Kerja Non Fisik -> Kepuasan Kerja -> Kinerja Karyawan	2,128	<b>0,034</b>	<b>Diterima</b>
Motivasi -> Kepuasan Kerja -> Kinerja Karyawan	2,020	<b>0,044</b>	<b>Diterima</b>

Source: SmartPLS Output, 2026

Based on Table 4.6, it can be concluded that the partial results show that the non-physical work environment and motivation have a positive and significant effect on job satisfaction. Furthermore, workload and job satisfaction have a positive and significant effect on employee performance. However, workload has no effect on job satisfaction, and the non-physical work environment and motivation have no effect on employee performance. Furthermore, satisfaction can mediate the non-physical work environment and motivation on employee performance, but it cannot mediate the effect of workload on employee performance. The following is a description of the hypothesis testing results in this study:

1. The significance value of the non-physical work environment variable ( $X_1$ ) is 0.003, which is smaller than 0.05. Therefore, it can be concluded that  $H_0$  is rejected and  $H_{a1}$  is accepted. Therefore, the non-physical work environment ( $X_1$ ) has a positive and significant effect on job satisfaction ( $Y$ ).
2. The significance value of the motivation variable ( $X_2$ ) is 0.000, which is smaller than 0.05. Therefore, it can be concluded that  $H_0$  is rejected and  $H_{a2}$  is accepted. Therefore, motivation ( $X_2$ ) has a positive and significant effect on job satisfaction ( $Y$ ).
3. The workload variable ( $X_3$ ) has a significance value of 0.150, which is greater than 0.05. Therefore,  $H_0$  is accepted and  $H_{a3}$  is rejected. Therefore, workload ( $X_3$ ) does not have a positive and significant effect on job satisfaction ( $Y$ ).
4. The non-physical work environment variable ( $X_1$ ) has a significance value of 0.338, which is greater than 0.05. Therefore,  $H_0$  is accepted and  $H_{a4}$  is rejected. Therefore, the non-physical work environment ( $X_1$ ) does not have an effect on employee performance ( $Z$ ).
5. The motivation variable ( $X_2$ ) has a significance value of 0.196, which is greater than 0.05. Therefore,  $H_0$  is accepted and  $H_{a5}$  is rejected. Therefore, motivation ( $X_2$ ) does not have a positive and significant effect on employee performance ( $Z$ ).

6. The workload variable (X3) has a significance value of 0.005, which is less than 0.05. Therefore,  $H_0$  is rejected and  $H_{a6}$  is accepted. Therefore, workload (X3) has a positive and significant effect on employee performance (Z).
7. The significance value of the job satisfaction variable (Y) is 0.008, which is smaller than 0.05. Therefore, it can be concluded that  $H_0$  is rejected and  $H_{a7}$  is accepted. Therefore, job satisfaction (Y) has a positive and significant effect on employee performance (Z).
8. The significance value of the non-physical work environment variable (X1) on employee performance (Z) through job satisfaction (Y) is 0.034, which is smaller than 0.05. Therefore, it can be concluded that  $H_0$  is rejected and  $H_{a10}$  is accepted. Therefore, job satisfaction (Y) can mediate the non-physical work environment (X1) on employee performance (Z).
9. The significance value of the motivation variable (X2) on employee performance (Z) through job satisfaction (Y) is 0.044, which is smaller than 0.05. Therefore, it can be concluded that  $H_0$  is rejected and  $H_{a11}$  is accepted. Therefore, job satisfaction (Y) can mediate the effect of motivation (X2) on employee performance (Z).
10. The significant value of the workload variable (X3) on employee performance (Z) through job satisfaction (Y) is 0.167, which is greater than 0.05, so it can be concluded that  $H_0$  is accepted and  $H_{a12}$  is rejected. Thus, job satisfaction (Y) cannot mediate workload (X3) on employee performance (Z).

### **The Influence of the Non-Physical Work Environment on Job Satisfaction**

The results of this study indicate that the significance value of the non-physical work environment variable (X1) is 0.003, which is smaller than 0.05. Therefore, it can be concluded that  $H_0$  is rejected and  $H_{a1}$  is accepted. Therefore, the non-physical work environment (X1) has a positive and significant effect on job satisfaction (Y). Furthermore, research by Widhyani & Murniyati (2026) and Priyatno & Yuliana (2025) also confirms that a conducive work environment, particularly in non-physical aspects such as social relationships and organizational support, can increase employee job satisfaction. Other studies, such as those by Selisia et al. (2026) and Gustami et al. (2024), also show that the work environment is a significant factor influencing job satisfaction, even when combined with other variables such as compensation and work motivation. Furthermore, several studies, such as those by Nurazyka et al. (2024), emphasize that although the work environment studied was a physical one, generally speaking, a good work environment still contributes to increased job satisfaction. Therefore, it can be concluded that the non-physical work environment plays a crucial role in creating employee job satisfaction. The better the interpersonal relationships, communication, and support within the work environment, the higher the level of job satisfaction experienced by employees.

### **The Effect of Work Motivation on Job Satisfaction**

The results of the study indicate that the significance value of the motivation variable (X2) is 0.000, which is less than 0.05. Therefore, it can be concluded that  $H_0$  is rejected and  $H_{a2}$  is accepted. Therefore, motivation (X2) has a positive and significant effect on job satisfaction (Y). Furthermore, research by Toipah & Ariawan (2025), Noviani & Siddiq (2025), and Nurazyka et al. (2024) also confirms that work motivation is a crucial factor in increasing

employee job satisfaction. In fact, in several studies, motivation has been shown to be the dominant variable compared to other variables. Thus, it can be concluded that work motivation has a significant influence on job satisfaction, where the higher an employee's work motivation, the higher their perceived level of job satisfaction.

#### **The Effect of Workload on Job Satisfaction**

The results of the study indicate that the workload variable (X3) has a significance value of 0.150, which is greater than 0.05. Therefore,  $H_0$  is accepted and  $H_{a3}$  is rejected. Therefore, workload (X3) does not have a positive and significant effect on job satisfaction (Y). This is because DAMRI bus drivers feel that satisfaction is derived not only from a relaxed workload but also from other factors such as the non-physical work environment and motivation.

#### **The Effect of the Non-Physical Work Environment on Employee Performance**

The results of the study indicate that the non-physical work environment variable (X1) has a significance value of 0.338, which is greater than 0.05. Therefore,  $H_0$  is accepted and  $H_{a4}$  is rejected. Therefore, the non-physical work environment (X1) does not have an effect on employee performance (Z). This is because DAMRI bus drivers feel that performance is derived not only from the non-physical work environment but also from other factors such as workload.

#### **The Effect of Motivation on Employee Performance**

The results of the study indicate that the significance value of the motivation variable (X2) is 0.196, which is greater than 0.05. Therefore,  $H_0$  is accepted and  $H_{a5}$  is rejected. Therefore, motivation (X2) does not have a positive and significant effect on employee performance (Z). This is because DAMRI bus drivers feel that performance is not solely determined by motivation but by other factors such as workload.

#### **The Effect of Workload on Employee Performance**

The results of the study indicate that the significance value of the workload variable (X3) is 0.005, which is less than 0.05. Therefore,  $H_0$  is rejected and  $H_{a6}$  is accepted. Therefore, workload (X3) has a positive and significant effect on employee performance (Z). This is in line with research by Agusta (2025), Saputria et al. (2025), and Chandra et al. (2024), which showed that workload significantly affects employee performance. Excessive workloads tend to decrease performance because employees experience physical and mental fatigue in completing their tasks. Furthermore, research by Saban (2024) and Zulkarnaen et al. (2024) also confirms that workload is a factor that directly and indirectly influences employee performance. Therefore, it can be concluded that workload influences employee performance. A workload that is not commensurate with an employee's abilities can decrease performance, while a balanced workload can improve employee performance.

#### **The Effect of Job Satisfaction on Employee Performance**

The results show that the significance value of the job satisfaction variable (Y) is 0.008, which is smaller than 0.05. Therefore,  $H_0$  is rejected and  $H_{a7}$  is accepted. Therefore, job satisfaction (Y) has a positive and significant effect on employee performance (Z). This aligns with research by Sinaga & Zairnati (2025), Praditya et al. (2025), and Sibagariang et al. (2025), which indicates that job satisfaction has a positive and significant effect on employee performance. Employees with high levels of job satisfaction tend to be more productive, disciplined, and better able to achieve work targets. Furthermore, research by Aliya

& Ardila (2024), Nurdin et al. (2024), and Alqorni et al. (2025) also confirms that job satisfaction is a crucial factor in improving employee performance. In some studies, job satisfaction even acts as an intervening variable, strengthening the relationship between other variables and performance. Therefore, it can be concluded that job satisfaction significantly influences employee performance, with higher levels of job satisfaction leading to higher employee performance.

### **The Influence of Non-Physical Work Environment, Work Motivation, and Workload on Job Satisfaction**

The results show that the coefficient of determination for the job satisfaction variable in this study was 0.894. Therefore, it can be concluded that the non-physical work environment, motivation, and workload influence job satisfaction by 89.4%, with the remaining 10.6% being influenced by other factors. This aligns with research by Widhyani & Murniyati (2026), Priyatno & Yuliana (2025), and Gustami et al. (2024), which showed that the work environment and work motivation positively influence job satisfaction. Furthermore, research by Toipah & Ariawan (2025), Noviani & Siddiq (2025), and Sunanda et al. (2025) also showed that workload significantly influences job satisfaction, with high workloads tending to decrease employee job satisfaction. Furthermore, research by Selisia et al. (2026) and Nurazyka et al. (2024) confirms that various factors, such as the work environment, motivation, and workload, simultaneously contribute to determining employee job satisfaction levels.

### **The Influence of the Non-Physical Work Environment, Work Motivation, Workload, and Job Satisfaction on Employee Performance**

The results of this study indicate a coefficient of determination of 0.761 for employee performance. Therefore, it can be concluded that the non-physical work environment, motivation, workload, and job satisfaction influence employee performance by 76.1%, with other factors contributing to the remaining 23.9%. This aligns with research by Agusta (2025), Fadlillah & Ellesia (2025), and Sanjaya & Febrian (2024), which demonstrate that the non-physical work environment positively impacts employee performance. Furthermore, research by Zulkarnaen et al. (2024), Afifah et al. (2024), and Dayona et al. (2023) indicates that work motivation significantly influences employee performance. (2024), and Nurdin et al. (2024) also showed that workload affects performance, with inappropriate workloads potentially reducing employee performance. Meanwhile, research by Sinaga & Zairnati (2025), Sibagariang et al. (2025), and Nurdin et al. (2024) revealed that job satisfaction positively influences employee performance.

### **The Influence of the Non-Physical Work Environment on Employee Performance Through Job Satisfaction as an Intervening Variable**

The results of this study indicate that the significance value of the non-physical work environment (X1) on employee performance (Z) through job satisfaction (Y) is 0.034, which is smaller than 0.05. Therefore,  $H_0$  is rejected and  $H_{a10}$  is accepted. Therefore, job satisfaction (Y) can mediate the non-physical work environment (X1) on employee performance (Z). This aligns with research by Aliya & Ardila (2024) and Nursapni et al. (2026), which showed that the work environment influences performance through intermediary variables. Furthermore, research by Alfadhil et al. (2024) and Chandra et al. (2024) also

demonstrated that job satisfaction can mediate the influence of independent variables on employee performance.

### **The Effect of Work Motivation on Employee Performance Through Job Satisfaction as an Intervening Variable**

The results of this study indicate that the significance value of the motivation variable (X2) on employee performance (Z) through job satisfaction (Y) is 0.044, which is smaller than 0.05. Therefore,  $H_0$  is rejected and  $H_{a11}$  is accepted. Therefore, job satisfaction (Y) can mediate the effect of motivation (X2) on employee performance (Z). This aligns with research by Nurdin et al. (2024), Alqorni et al. (2025), and Chandra et al. (2024), which shows that job satisfaction can mediate the influence of work motivation on employee performance. In addition, research by Alfadhil et al. (2024) and Akbar et al. (2023) also proved that work motivation influences performance through job satisfaction as an intervening variable.

### **The Effect of Workload on Employee Performance Through Job Satisfaction as an Intervening Variable**

The results of this study indicate that the significant value of the workload variable (X3) on employee performance (Z) through job satisfaction (Y) is 0.167, which is greater than 0.05. Therefore, it can be concluded that  $H_0$  is accepted and  $H_{a12}$  is rejected. Therefore, job satisfaction (Y) cannot mediate workload (X3) on employee performance (Z). This is because workload has no effect on job satisfaction, and therefore, job satisfaction cannot mediate workload on employee performance.

## **CONCLUSION**

The results of this study can be summarized as follows: The findings indicate that, partially, the non-physical work environment and motivation have a positive and significant effect on job satisfaction. Furthermore, workload and job satisfaction have a positive and significant effect on employee performance. However, workload does not affect job satisfaction, and the non-physical work environment and motivation do not affect employee performance.

The findings also indicate that the non-physical work environment, motivation, and workload simultaneously influence job satisfaction. In addition, the results show that the non-physical work environment, motivation, workload, and job satisfaction simultaneously influence employee performance.

The results further indicate that job satisfaction can mediate the relationship between the non-physical work environment and motivation toward employee performance, but it cannot mediate the relationship between workload and employee performance.

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