Community Engagement & Emergence Journal
Volume 7 Nomor 3, Tahun 2026
Halaman : 2764-2780

Psychological Contribution, Disciplined Behavior, and Driving Compensation to Safety with Satisfaction Job As an Intervening Variable

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Abstract
This study aims to examine the effects of work stress, work discipline, and compensation on the driving safety of Transjakarta bus drivers, with job satisfaction serving as an intervening variable. A quantitative approach with an-explanatory research design was employed. The study involved 125 Transjakarta bus drivers selected through purposive sampling. Data were collected using a structured questionnaire and analyzed using Structural Equation Modeling–Partial Least Squares (SEM-PLS) with SmartPLS 4 software. The results indicate that work stress, work discipline, and compensation have positive and significant effects on job satisfaction. Work discipline also has a positive and significant effect on driving safety. However, work stress, compensation, and job satisfaction do not have significant effects on driving safety. Furthermore, job satisfaction does not mediate the relationships between work stress, work discipline, or compensation and driving safety. These findings suggest that work discipline is the most influential factor in improving the driving safety of Transjakarta bus drivers. Therefore, the company should strengthen work discipline by enhancing compliance with Standard Operating Procedures (SOPs), improving supervision, and implementing continuous coaching programs to support safer driving practices.
Keywords*: Work Stress, Work Discipline, Compensation, Job Satisfaction, Driving Safety.*

1. Introduction

The development of the public transportation sector in many countries has become a crucial element in supporting community mobility and economic efficiency. As urbanization and population growth continue to increase, public transportation safety has emerged as a global concern. The *Global Status Report on Road Safety 2023* published by the World Health Organization states that more than 1.19 million people die each year due to road traffic accidents, with approximately 90% of these accidents occurring in low- and middle-income countries, including Indonesia. This indicates that transportation safety is a systemic issue involving multiple contributing factors.

In Indonesia, the development of mass public transportation systems such as Transjakarta aims to reduce traffic congestion and air pollution. As one of the largest *Bus Rapid Transit* (BRT) systems in Southeast Asia, Transjakarta operates under high traffic volumes, making driver safety a critical issue due to the elevated risks of fatigue, time pressure, and heavy workloads that may affect drivers' psychological conditions, job satisfaction, and compliance with safety procedures.

High work demands, including strict schedule adherence and responsibility for passenger safety, have the potential to generate work-related stress. S. Useche et al. (2018) reported that psychosocial factors such as *job strain*, *effort–reward imbalance*, and low social support increase risky driving behavior among BRT drivers, with *fatigue* serving as a mechanism that strengthens these effects. Megaranti (2022) also found that 48.4% of Transjakarta BRT and Non-BRT drivers experienced *fatigue*, which may reduce concentration and compromise driving safety.

According to Robbins and Judge (2023), job satisfaction reflects an individual's evaluation of their job. Work pressure, operational demands, and safety risks may

e-ISSN:2715-9752, p-ISSN:2715-9868

reduce job satisfaction, which subsequently influences compliance with safety procedures (Chen et al., 2024). A preliminary survey involving 15 drivers revealed low levels of job satisfaction, with 80% of respondents stating that salaries and benefits were not commensurate with their workload, 80% indicating that workplace facilities were inadequate, 93.3% reporting unclear career development opportunities, and 86.7% expressing dissatisfaction with communication from supervisors.

The level of work stress among drivers was also relatively high. The preliminary survey showed that 60% of respondents felt stressed due to passenger volume, 86.7% frequently experienced anxiety when driving in heavy traffic, 66.7% had difficulty concentrating because of schedule pressure, and 80% felt they received insufficient managerial support. These findings are consistent with Tong et al. (2022), who reported that work stress can increase *unsafe behavior* both directly and indirectly through fatigue.

In addition to work stress, work discipline is another important factor influencing driving safety. Rivai and Sagala (2011) define work discipline as employees' awareness and willingness to comply with organizational rules, while Wati et al. (2021) argue that work discipline promotes safe work behavior. The preliminary survey indicated that 73.3% of drivers had skipped pre-operational vehicle inspections, 93.3% had forgotten to complete attendance records, and 80% had used mobile phones while driving. These findings suggest that compliance with safety procedures remains suboptimal. S. Useche et al. (2018) also found that work stress increases aggressive driving behavior, whereas Fachrudi et al. (2021) emphasized that work discipline plays a significant role in improving employee performance.

Another factor influencing job satisfaction and driving safety is compensation. Mangkunegara (2024) argues that compensation enhances employee satisfaction, motivation, and performance. The preliminary survey found that 73.3% of respondents perceived the incentive system as unfair, 80% believed that compensation was not proportional to the risks and responsibilities of their job, and 86.7% considered non-financial rewards inadequate. These findings indicate that both financial and non-financial compensation have not met drivers' expectations.

Based on these considerations, this study positions work stress, work discipline, and compensation as factors influencing driving safety behavior through job satisfaction as an *intervening* variable. This framework is expected to provide a comprehensive explanation that the driving safety behavior of Transjakarta drivers results from the interaction of psychological, behavioral, and financial factors rather than being determined by a single factor.

Drawing on the literature review and current field conditions reflected in the latest empirical evidence, this study aims to address an existing research gap by comprehensively examining the effects of work stress, work discipline, and compensation on the driving safety behavior of Transjakarta drivers while considering the mediating role of job satisfaction. Previous studies have generally examined psychological factors or behavioral factors separately, thereby failing to provide a comprehensive understanding of how psychological factors (work stress), behavioral factors (work discipline), and financial factors (compensation) simultaneously contribute to the driving safety behavior of Transjakarta drivers through job satisfaction as an *intervening* variable. In reality, driving safety is the result of a complex interaction among working conditions, psychological conditions, and compliance with standard operating procedures. Therefore, this study seeks to fill this

research gap by simultaneously investigating the effects of work stress, work discipline, and compensation on the driving safety behavior of Transjakarta drivers while incorporating job satisfaction as an *intervening* variable.

2. Method

Research Design

This study employed a quantitative approach with a causal associative research design to analyze the effects of independent variables on the dependent variable, both directly and indirectly through an intervening variable (Sugiyono, 2023). Data were collected using a structured questionnaire and analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS software.

Research Population

The population consisted of all active Transjakarta bus drivers responsible for vehicle operations and driving safety, who were directly associated with the variables of job satisfaction, job stress, work discipline, and compensation.

Research Sample

The sample size was determined based on the guideline proposed by Hair et al. (2019), which recommends a minimum sample of 5–10 times the number of indicators. With 25 indicators, the minimum required sample was 125 respondents. Therefore, this study involved 125 active Transjakarta bus drivers.

The sampling technique employed was non-probability sampling, specifically purposive sampling (Sugiyono, 2023). The respondents were selected based on the following criteria:

1. Active drivers serving all Transjakarta routes.
2. Willing to complete the questionnaire honestly and thoroughly.

The selected sample size met the minimum requirements for conducting PLS-SEM analysis.

Data Collection Method

Data were collected using a closed-ended questionnaire measured on a four-point Likert scale, where 1 = strongly disagree, 2 = disagree, 3 = agree, and 4 = strongly agree. The exclusion of a neutral response option was intended to encourage respondents to express clearer opinions and reduce the tendency to select neutral answers (Kankaraš & Capecchi, 2025).

3. Result and Discussion

Measurement Model Evaluation (Outer Model)

Outer Model Design

The outer model describes the relationship between the latent constructs and the reflective indicators used to measure each research variable based on the theoretical foundation and operationalization of the variables. This design aims to ensure each indicator adequately represents the construct before testing the validity and reliability of the measurement model.

This study used five constructs: Job stress: 5 indicators (SK1–SK5), Work discipline: 5 indicators (DK1–DK5), Compensation: 5 indicators (K1–K5), Job satisfaction: 4 indicators (KK2–KK5), and Driving safety: 5 indicators (KM1–KM5).

The relationship between the latent constructs and indicators is shown in Figure 1.

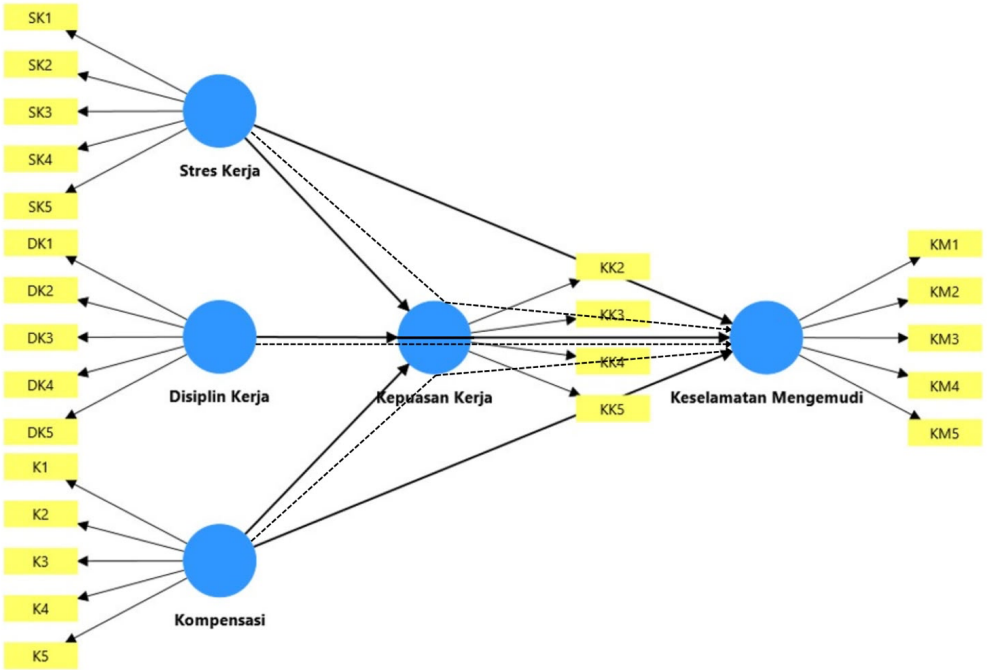

Figure 1. Outer Model Design

Convergent Validity

This test aims to measure the extent to which indicators within a construct have a high correlation and truly reflect the same latent variable.

Outer Loading

Convergent validity testing is conducted by examining the outer loading value. According to Hair et al. (2022), an indicator is considered to meet convergent validity if its outer loading value is ≥ 0.70. The results of the outer loading test in this study are presented in Table 1.

Table 1. Outer Loading Results

	Work Discipline	Job Satisfaction	Driving Safety	Compensation	Work Stress
SK1					0.738
SK2					0.736
SK3					0.851
SK4					0.872
SK5					0.892
DK1	0.815				
DK2	0.894				
DK3	0.926				
DK4	0.924				
DK5	0.874				
K1				0.906	
K2				0.918	
K3				0.918	

K4			0.884
K5			0.910
KK2	0.833		
KK3	0.882		
KK4	0.833		
KK5	0.887		
KM1		0.917	
KM2		0.923	
KM3		0.920	
KM4		0.867	
KM5		0.855	

Source: Primary data processed using SmartPLS 4, 2026

Based on the results of the convergent validity test, all indicators had outer loading values ≥ 0.70, thus meeting the convergent validity criteria according to Hair et al. (2022). The outer loading values for each variable were: work stress (0.736–0.892), work discipline (0.815–0.926), compensation (0.884–0.918), job satisfaction (0.833–0.887), and driving safety (0.855–0.923). Thus, all indicators were declared valid and suitable for use in the research model.

Average Variance Extracted (AVE)

Average Variance Extracted (AVE) was also used to evaluate convergent validity. According to Hair et al. (2022), an AVE value ≥ 0.50 indicates that the construct is able to explain more than 50% of the indicator's variance, while Ghozali (2021) states that the higher the AVE value, the better the construct's ability to represent its indicator.

Table 2. Average Variance Extracted (AVE) Test Results

Construct	Average Variance Extracted (AVE)
Work Stress	0.673
Work Discipline	0.788
Compensation	0.823
Job Satisfaction	0.738
Driving Safety	0.805

Source: Primary data processed using SmartPLS 4, 2026

Based on the Average Variance Extracted (AVE) test results, all constructs had an AVE value of ≥ 0.50, thus meeting the convergent validity criteria according to Hair et al. (2022). The AVE values for each variable were: work stress (0.673), work discipline (0.788), compensation (0.823), job satisfaction (0.738), and driving safety (0.805). These results indicate that all constructs were able to explain more than 50% of the variance in their indicators, thus declaring the outer model valid and worthy of further reliability and discriminant validity testing.

Discriminant Validity

Fornell-Larcker Criteria

Discriminant validity was tested using the Fornell-Larcker criteria, which compares the √AVE value of each construct with the correlation between constructs. According to Hair et al. (2022), discriminant validity is met if the √AVE value is greater than the correlation with other constructs. The test results are presented in Table 3.

Table 3. Fornell-Larcker Criterion Values

Construct	Work Discipline	Job Satisfaction	Driving Safety	Compensation	Work Stress
Work Discipline	**0.888**				
Job Satisfaction	0.630	**0.859**			
Driving Safety	0.819	0.587	**0.897**		
Compensation	0.402	0.782	0.409	**0.907**	
Work Stress	0.713	0.759	0.678	0.609	**0.821**

Source: Primary data processed using SmartPLS 4, 2026

Based on the Fornell-Larcker Criterion test results, all constructs had √AVE values greater than their correlations with other constructs, thus meeting the discriminant validity criteria according to Hair et al. (2022). The √AVE values for each variable were work discipline (0.888), job satisfaction (0.859), driving safety (0.897), compensation (0.907), and job stress (0.821). These results indicate that each construct can be well distinguished from the other constructs.

Thus, all constructs met the Fornell-Larcker criteria, making the model suitable for discriminant validity testing using cross-loading and the heterotrait-monotrait ratio (HTMT).

Cross-Loading

Cross-loading is used to test discriminant validity by comparing the loading values of each indicator on its construct with other constructs. According to Hair et al. (2022), an indicator is declared valid if it has the highest cross-loading value on the construct it measures. The test results are presented in Table 4.

Table 4. Cross-Loading Values

Indicator	Work Discipline	Job Satisfaction	Driving Safety	Compensation	Work Stress
DK1	0.815	0.522	0.638	0.373	0.646
DK2	0.894	0.576	0.711	0.398	0.618
DK3	0.926	0.539	0.784	0.352	0.627
DK4	0.924	0.605	0.781	0.321	0.639
DK5	0.874	0.553	0.713	0.346	0.640
K1	0.425	0.707	0.399	0.906	0.633
K2	0.420	0.733	0.401	0.918	0.597
K3	0.390	0.730	0.382	0.918	0.592
K4	0.276	0.688	0.343	0.884	0.464
K5	0.301	0.690	0.323	0.910	0.467
KK2	0.577	0.833	0.545	0.644	0.747
KK3	0.651	0.882	0.603	0.612	0.627
KK4	0.409	0.833	0.371	0.755	0.578

KK5	0.511	0.887	0.481	0.691	0.647
KM1	0.729	0.534	0.917	0.360	0.608
KM2	0.786	0.486	0.923	0.331	0.597
KM3	0.732	0.509	0.920	0.364	0.575
KM4	0.740	0.582	0.867	0.437	0.627
KM5	0.681	0.524	0.855	0.340	0.637
SK1	0.515	0.623	0.432	0.503	0.738
SK2	0.594	0.426	0.576	0.276	0.736
SK3	0.529	0.672	0.584	0.553	0.851
SK4	0.601	0.708	0.552	0.564	0.872
SK5	0.689	0.657	0.635	0.566	0.892

Source: Primary data processed using SmartPLS 4, 2026

Based on the cross-loading test results in Table 4, all indicators have the highest loading values on the constructs they measure compared to other constructs. This indicates that all indicators adequately represent their respective constructs and meet the discriminant validity criteria according to Hair et al. (2022).

Indicators for each variable—work discipline (DK1–DK5), compensation (K1–K5), job satisfaction (KK2–KK5), driving safety (KM1–KM5), and job stress (SK1–SK5)—have the highest correlations with their respective constructs compared to other constructs. Thus, the research model meets the requirements for discriminant validity based on the cross-loading method and is suitable for further testing with the Heterotrait-Monotrait Ratio (HTMT).

Heterotrait-Monotrait Ratio (HTMT)

The Heterotrait-Monotrait Ratio (HTMT) is used to test discriminant validity by comparing the correlation ratios between constructs. According to Hair et al. (2022), an HTMT value <0.90 indicates that discriminant validity has been met. The results of the HTMT test are presented in Table 5.

Table 5. Heterotrait-Monotrait Ratio (HTMT) Values

Construct	Work Discipline	Job Satisfaction	Driving Safety	Compensation
Work Discipline				
Job Satisfaction	0.690			
Driving Safety	0.873	0.640		
Compensation	0.427	0.860	0.432	
Work Stress	0.793	0.855	0.749	0.658

Source: Primary data processed using SmartPLS 4, 2026

Based on the Heterotrait-Monotrait Ratio (HTMT) test results in Table 5, all construct pairs had HTMT values <0.90, thus meeting the discriminant validity criteria according to Hair et al. (2022). HTMT values ranged from 0.427 (work discipline–compensation) to 0.873 (work discipline–driving safety), and all fell below the recommended limit.

These results indicate that each construct can be empirically distinguished from the others and strengthen the results of the Fornell-Larcker Criterion and cross-

loading tests. Therefore, all constructs were declared valid and suitable for use in the structural model evaluation stage (inner model).

Construct Reliability

Cronbach's Alpha

Cronbach's Alpha is used to measure internal consistency between indicators within a construct. According to Hair et al. (2022), a construct is declared reliable if it has a Cronbach's Alpha value ≥ 0.70. The test results are presented in Table 6.

Table 6. Cronbach's Alpha Value

Construct	Cronbach's Alpha
Work Discipline	0.932
Job Satisfaction	0.882
Driving Safety	0.939
Compensation	0.946
Work Stress	0.877

Source: Primary data processed using SmartPLS 4, 2026

Based on the results of the Cronbach's Alpha reliability test in Table 6, all constructs had values ≥ 0.70, thus meeting the reliability criteria according to Hair et al. (2022). Cronbach's Alpha values ranged from 0.877 (job stress) to 0.946 (compensation), indicating that all indicators had good internal consistency in measuring their constructs.

Thus, all constructs were declared reliable and worthy of further Composite Reliability (CR) testing.

Composite Reliability (CR)

Composite Reliability (CR) is used to measure construct reliability based on the contribution of each indicator in measuring the latent variable. According to Hair et al. (2022), a construct is considered reliable if its Composite Reliability value is ≥ 0.70. The results of the Composite Reliability test are presented in Table 7.

Table 7. Composite Reliability (CR) Value

Construct	Composite Reliability (ρc)
Work Discipline	0.949
Job Satisfaction	0.919
Driving Safety	0.954
Compensation	0.959
Work Stress	0.911

Source: Primary data processed using SmartPLS 4, 2026

Based on the Composite Reliability test results in Table 7, all constructs had values ≥ 0.70, thus meeting the reliability criteria according to Hair et al. (2022). Composite Reliability values ranged from 0.911 (job stress) to 0.959 (compensation), indicating a good level of reliability for all constructs. Therefore, all constructs were deemed reliable and met the requirements for evaluating the measurement model (outer model), making it appropriate to proceed to the structural model evaluation (inner model).

Structural Model Evaluation (Inner Model)

Designing the Inner Model

Designing the inner model illustrates the impact of the research variables, as shown in the diagram below, as shown in red circles. This study used independent variables of work stress, work discipline, compensation, the mediating variable of job satisfaction, and the dependent variable of driving safety.

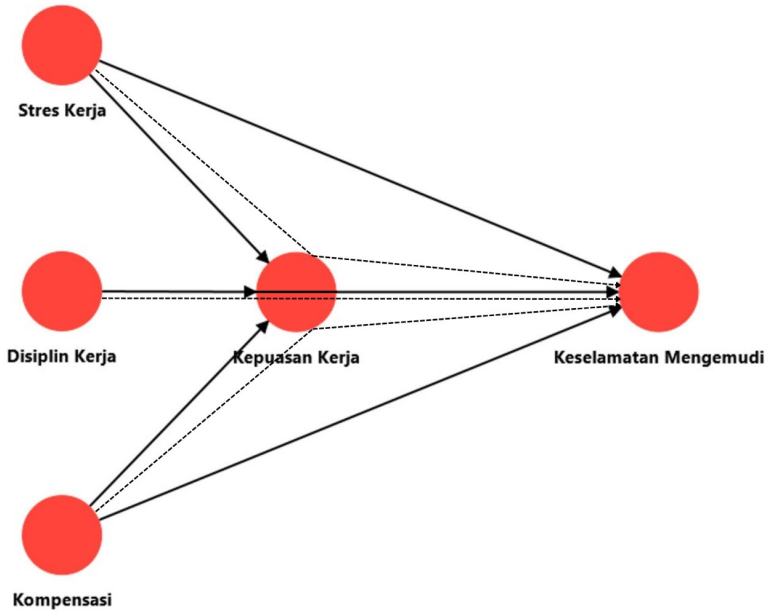

Figure 2. Inner Model Design

Collinearity Test (VIF)

The collinearity test was conducted to determine the presence or absence of multicollinearity among the predictor constructs in the structural model. The test was conducted using the variance inflation factor (VIF) value. According to Hair et al. (2022), a model is considered free of collinearity if its VIF value is <5.00. The results of the collinearity test are presented in Table 8.

Table 8. Variance Inflation Factor (VIF) Values

Construct	Job Satisfaction	Driving Safety
Work Discipline	2.041	2.236
Compensation	1.595	2.731
Work Stress	2.721	3.071
Job Satisfaction		4.200

Source: Primary data processed using SmartPLS 4, 2026

Based on the Variance Inflation Factor (VIF) test results in Table 8, all constructs have VIF values between 1.595–4.200 (<5), indicating no signs of multicollinearity among the predictor constructs. The highest VIF value is found in the relationship between job satisfaction and driving safety (4.200), while the lowest is found in the relationship between compensation and job satisfaction (1.595). Thus, the model meets the collinearity criteria according to Hair et al. (2022) and is suitable for use in path coefficient testing.

Coefficient of Determination (R^2)

The coefficient of determination (R^2) is used to measure the ability of exogenous constructs to explain variation in endogenous constructs. According to Hair et al. (2022), an R^2 value of 0.75 is categorized as strong (substantial), 0.50 as moderate, and 0.25 as weak. The results of the R^2 test are presented in Table 9.

Table 9. Coefficient of Determination (R^2) Value

Endogenous Construct	R^2	Adjusted R^2
Job Satisfaction	0.762	0.756
Driving Safety	0.690	0.679

Source: Primary data processed using SmartPLS 4, 2026

This study used the Adjusted R-Square value because the model involves more than one exogenous variable, thus providing a more accurate estimate of model capability than R-Square.

Based on Table 9, the job satisfaction variable has an Adjusted R-Square value of 0.756, meaning that 75.6% of the variation in job satisfaction is explained by work stress, work discipline, and compensation, while 24.4% is explained by other factors. This value is categorized as strong (substantial) according to Hair et al. (2022). Meanwhile, the driving safety variable has an Adjusted R-Square value of 0.679, indicating that 67.9% of the variation is explained by work stress, work discipline, compensation, and job satisfaction, while 32.1% is influenced by other factors. This value is categorized as moderate according to Hair et al. (2022).

Thus, the structural model has good ability to explain the relationships between the study variables.

Effect Size (f^2)

Effect size (f^2) is used to measure the contribution of each exogenous construct to the endogenous construct. According to Hair et al. (2022), an f^2 value of 0.02 indicates a small effect, 0.15 a medium effect, and 0.35 a large effect. The results of the effect size (f^2) test are presented in Table 10.

Table 10. Effect size (f^2)

Construct	Job Satisfaction	Driving Safety
Work Discipline	0.096	0.670
Compensation	0.712	0.001
Work Stress	0.129	0.031
Job Satisfaction		0.000

Source: Primary data processed using SmartPLS 4, 2026

Based on Table 10, the results of the effect size (f^2) test show the magnitude of the contribution of each exogenous variable to the endogenous variable as follows:

1. The effect of work discipline on job satisfaction is 0.096, thus categorizing it as a small effect.
2. The effect of work discipline on driving safety is 0.670, thus categorizing it as a large effect.
3. The effect of compensation on job satisfaction is 0.712, thus categorizing it as a large effect.
4. The effect of compensation on driving safety is 0.001, thus categorizing it as a very small effect and practically negligible.

5. The effect of work stress on job satisfaction is 0.129, thus categorizing it as a small effect.
6. The effect of work stress on driving safety is 0.031, thus categorizing it as a small effect.
7. The effect of job satisfaction on driving safety is 0.000, indicating no practical contribution to driving safety changes.

The results of the effect size (f^2) test indicate that work discipline makes the largest practical contribution to driving safety, while compensation makes the largest contribution to job satisfaction. Conversely, the effects of compensation and job satisfaction on driving safety are very small. This finding suggests that statistical significance does not always reflect the magnitude of the practical contribution, so model interpretation needs to consider both the hypothesis test results and the effect size (f^2) values simultaneously (Hair et al., 2022).

Hypothesis Testing

Hypothesis testing was conducted using the bootstrapping procedure in SmartPLS 4 to test the significance of the relationships between constructs. According to Hair et al. (2022), testing is based on path coefficients and P-values. At the 5% significance level, the hypothesis is accepted if P-values <0.05 and rejected if P-values >0.05.

Table 11. Results of the Direct Effect Hypothesis Test

Hypothesized Relationship	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Work Stress → Job Satisfaction	0.289	0.293	0.101	2.852	0.004
Work Discipline → Job Satisfaction	0.216	0.217	0.069	3.147	0.002
Compensation → Job Satisfaction	0.520	0.513	0.070	7.466	0.000
Work Stress → Driving Safety	0.171	0.177	0.094	1.810	0.070
Work Discipline → Driving Safety	0.682	0.680	0.087	7.807	0.000
Compensation → Driving Safety	0.023	0.021	0.070	0.333	0.739
Job Satisfaction → Driving Safety	0.009	0.007	0.090	0.103	0.918

Source: Primary data processed using SmartPLS 4, 2026

Based on Table 11, the results of the hypothesis test indicate that:

H1: Job stress has a positive and significant effect on job satisfaction (P-value = 0.004 < 0.05), therefore H1 is **accepted.**

H2: Work discipline has a positive and significant effect on job satisfaction (P-value = 0.002 < 0.05), therefore H2 is **accepted.**

H3: Compensation has a positive and significant effect on job satisfaction (P-value = 0.000 < 0.05), therefore H3 is **accepted.** Compensation is the most dominant factor influencing job satisfaction.
H4: Job stress does not have a significant effect on driving safety (P-value = 0.070 > 0.05), therefore H4 is **rejected.**
H5: Work discipline has a positive and significant effect on driving safety (P-value = 0.000 < 0.05), therefore H5 is **accepted** and is the most dominant factor influencing driving safety.
H6: Compensation does not have a significant effect on driving safety (P-value = 0.739 > 0.05), therefore H6 is **rejected.**
H7: Job satisfaction does not have a significant effect on driving safety (P-value = 0.918 > 0.05), therefore H7 is **rejected.**

Overall, four hypotheses are accepted (H1, H2, H3, and H5) and three hypotheses are rejected (H4, H6, and H7). Next, an indirect effect test was conducted to examine the role of job satisfaction as a mediating variable.

Mediation Effect Test

The mediation effect test was conducted to determine whether job satisfaction mediates the relationship between job stress, work discipline, and compensation on driving safety. The test uses a specific indirect effect through the bootstrapping procedure in SmartPLS 4. According to Preacher & Hayes (2008), a mediation effect is considered significant if it has a t-statistic value > 1.96 and a P-value < 0.05.

Table 12. Results of the Mediation Effect Test

Indirect Relationship	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Work Stress → Job Satisfaction → Driving Safety	0.003	0.002	0.029	0.093	0.926
Work Discipline → Job Satisfaction → Driving Safety	0.002	0.002	0.021	0.097	0.923
Compensation → Job Satisfaction → Driving Safety	0.005	0.004	0.046	0.105	0.917

Source: Primary data processed using SmartPLS 4, 2026

Based on Table 12, the results of the mediation effect test indicate that:
H8: The indirect effect of job stress on driving safety through job satisfaction is not significant (P-value = 0.926 > 0.05), therefore H8 is **rejected.**
H9: The indirect effect of work discipline on driving safety through job satisfaction is not significant (P-value = 0.923 > 0.05), therefore H9 is **rejected.**
H10: The indirect effect of compensation on driving safety through job satisfaction is not significant (P-value = 0.917 > 0.05), therefore H10 is **rejected.**

Overall, all indirect effects in this study are insignificant. Thus, job satisfaction does not act as a mediating variable in the relationship between job stress, work discipline, or compensation on driving safety. These results are consistent with the findings of H7, which showed that job satisfaction does not significantly influence

driving safety, suggesting that changes in driving safety are more influenced by the direct relationship between the variables than through a mediating mechanism.

Hypothesis Discussion

H1: The Effect of Job Stress on Job Satisfaction

The findings indicate that job stress has a positive and significant effect on the job satisfaction of Transjakarta drivers (p-value = 0.004 < 0.05); therefore, H1 is accepted. Since the job stress indicators were formulated as positive statements, a higher score reflects better-managed or lower levels of stress. This finding is consistent with the Job Demands–Resources (JD-R) Model proposed by Bakker and Demerouti (2017), which explains that a balance between job demands and job resources enhances job satisfaction. The results are also supported by Robbins and Judge (2023), Lesener et al. (2019), and S. Useche et al. (2018). Therefore, PT Transportasi Jakarta should continue strengthening organizational support and job stress management initiatives to maintain and improve drivers' job satisfaction.

H2: The Effect of Work Discipline on Job Satisfaction

The results demonstrate that work discipline has a positive and significant effect on job satisfaction (p-value = 0.002 < 0.05); therefore, H2 is accepted. This finding is consistent with Hasibuan (2019), Hu et al. (2016), Megaranti (2022), and Ningsih et al. (2023), who argue that compliance with organizational rules and Standard Operating Procedures (SOPs) creates an orderly work environment that enhances job satisfaction. Accordingly, PT Transportasi Jakarta should continue fostering a strong culture of discipline and safety through consistent supervision and employee development programs.

H3: The Effect of Compensation on Job Satisfaction

The findings reveal that compensation has a positive and significant effect on job satisfaction (p-value = 0.000 < 0.05); therefore, H3 is accepted. Compensation also emerged as the most influential factor in improving job satisfaction. This result is consistent with Armstrong and Taylor (2023), Colquitt and Zipay (2015), and Ogbonnaya et al. (2017), who emphasize that fair and appropriate compensation enhances employee motivation and job satisfaction. Therefore, PT Transportasi Jakarta should maintain a compensation system that is fair, transparent, and competitive.

H4: The Effect of Job Stress on Driving Safety

The results indicate that job stress does not have a significant effect on driving safety (p-value = 0.070 > 0.05); therefore, H4 is rejected. This finding is consistent with Bakker and Demerouti (2017), who argue that adequate job resources can buffer the negative effects of job demands. However, it differs from the findings of S. Useche et al. (2018), S. A. Useche, Cendales, et al. (2018), and Amoadu et al. (2024). This result may be attributed to the effective implementation of SOPs, safety training, and operational supervision within Transjakarta, as supported by ILO (2022), Adiyanto et al. (2021), and Yang et al. (2021).

H5: The Effect of Work Discipline on Driving Safety

The findings demonstrate that work discipline has a positive and significant effect on driving safety (*p*-value = 0.000 < 0.05); therefore, H5 is accepted. This variable also exhibited the largest effect size (f^2 = 0.670). The findings are consistent with Hasibuan (2019), Neal and Griffin (2002), Hu et al. (2016), Yang et al. (2021), and S. Useche et al. (2018), who emphasize that compliance with SOPs and safety procedures significantly improves workplace safety. Accordingly, PT Transportasi Jakarta should continue strengthening work discipline through continuous supervision, coaching, and safety training.

H6: The Effect of Compensation on Driving Safety

The results indicate that compensation does not have a significant effect on driving safety (*p*-value = 0.739 > 0.05); therefore, H6 is rejected. This suggests that compensation does not directly improve safe driving behavior. The finding is consistent with Armstrong and Taylor (2023), who argue that compensation primarily enhances employee motivation and well-being rather than safety behavior. Similarly, Škerlič and Erčulj (2021) and S. A. Useche, Cendales, et al. (2018) explain that safety performance is more strongly influenced by safety culture, compliance with SOPs, and organizational safety management systems. Within Transjakarta, driving safety appears to be determined primarily by SOP implementation, safety training, and operational supervision. Therefore, the company should maintain a fair compensation system while continuing to strengthen its safety culture.

H7: The Effect of Job Satisfaction on Driving Safety

The findings reveal that job satisfaction does not have a significant effect on driving safety (*p*-value = 0.918 > 0.05); therefore, H7 is rejected. This result is consistent with Spector (2022), who argues that job satisfaction does not necessarily translate into work behavior. Likewise, Li and Griffin (2022) and S. A. Useche, Cendales, et al. (2018) explain that safety behavior is more strongly influenced by psychological factors, job characteristics, and organizational safety systems. In the context of Transjakarta, driving safety is determined more by compliance with SOPs, safety training, and operational supervision than by job satisfaction. Consequently, strengthening the organizational safety culture is likely to be a more effective strategy for improving driving safety.

H8: The Effect of Job Stress on Driving Safety through Job Satisfaction

The results indicate that job satisfaction does not mediate the relationship between job stress and driving safety (*p*-value = 0.926 > 0.05); therefore, H8 is rejected. This finding is consistent with Bakker and Demerouti (2017), who argue that while effective stress management improves job satisfaction, it does not necessarily enhance safety behavior. Spector (2022), Griffin and Neal (2000), Ansori et al. (2021), and Seo and Lee (2022) also emphasize that safety performance is primarily influenced by the organization's safety management system. Thus, improving the driving safety of Transjakarta drivers depends more on strengthening safety culture, ensuring compliance with SOPs, and enhancing operational supervision than on increasing job satisfaction.

H9: The Effect of Work Discipline on Driving Safety through Job Satisfaction

The findings demonstrate that job satisfaction does not mediate the relationship between work discipline and driving safety (p-value = 0.923 > 0.05); therefore, H9 is rejected. This result is consistent with Hasibuan (2019), Griffin and Neal (2000), Neal and Griffin (2002), Hu et al. (2016), and Yang et al. (2021), who explain that work discipline and safety compliance have a direct influence on safety behavior. The substantial direct effect of work discipline (f^2 = 0.670) further indicates that driving safety is influenced more strongly by work discipline than by job satisfaction. Therefore, the company should continue strengthening employee discipline and compliance with SOPs.

H10: The Effect of Compensation on Driving Safety through Job Satisfaction

The results indicate that job satisfaction does not mediate the relationship between compensation and driving safety (p-value = 0.917 > 0.05); therefore, H10 is rejected. This finding is consistent with Armstrong and Taylor (2023) and Spector (2022), who explain that compensation contributes to higher job satisfaction. However, Griffin and Neal (2000), Yang et al. (2021), and Jiang et al. (2019) argue that safety behavior is primarily influenced by organizational safety culture and safety management systems. These findings suggest that although compensation enhances job satisfaction, it does not directly improve driving safety. Therefore, efforts to improve driving safety should focus on strengthening the organizational safety culture, enhancing work discipline, and ensuring strict compliance with Standard Operating Procedures (SOPs).

4. Conclusion

Based on the research findings on the psychological contribution, discipline behavior, and compensation to driving safety, with job satisfaction as an intervening variable among Transjakarta driver drivers, the following conclusions can be drawn:

1. Job stress has a positive and significant effect on job satisfaction. The more manageable job stress is, the higher the driver's job satisfaction is.
2. Work discipline has a positive and significant effect on job satisfaction.
3. Compensation has a positive and significant effect on job satisfaction and is the most dominant factor in increasing it.
4. Job stress has no significant effect on driving safety.
5. Work discipline has a positive and significant effect on driving safety and is the most dominant factor.
6. Compensation has no significant effect on driving safety.
7. Job satisfaction has no significant effect on driving safety.
8. Job satisfaction does not mediate the effect of job stress on driving safety.
9. Job satisfaction does not mediate the effect of work discipline on driving safety.
10. Job satisfaction does not mediate the effect of compensation on driving safety.

Overall, work discipline is the most dominant factor in improving driving safety, while compensation is the most dominant factor in increasing job satisfaction. However, job satisfaction has not been able to act as an intervening variable in the relationship between work stress, work discipline, and compensation on driving safety.

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