



GIG WORKERS PERFORMANCE: WORKLOAD AND JOB INSECURITY IMPACTS THROUGH WORK STRESS

Ibnu Fajar Ardiansyah¹⁾, Asep Gunawan²⁾, Dadang Priyono³⁾

^{1,2,3,...)} Program of Manajemen, Faculty of Economics, Muhammadiyah University of Cirebon, Indonesia

¹⁾ ibnufajarardiansyahh@gmail.com

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*Correspondence:

Name: Ibnu Fajar Ardiansyah

E-mail:

ibnufajarardiansyahh@gmail.com

Editorial Office

Ambon State Polytechnic

Center for Research and

Community Service

Ir. M. Putuhena Street, Wailela-

Rumahtiga, Ambon

Maluku, Indonesia

Postal Code: 97234

ABSTRACT

Introduction: This study aims to analyze the effect of workload and job insecurity on employee performance, both directly and through work stress as a mediating variable, among Shopee Express partner couriers at the Palimanan, Depok, and Kedawung Hubs in Cirebon Regency. The rapid growth of e-commerce logistics has increased courier workloads without a corresponding improvement in the employment protection and welfare of these gig workers.

Methods: This research applies a quantitative approach using purposive sampling, involving 116 respondents determined through the Isaac and Michael formula. Data were collected through a Likert-scale questionnaire and analyzed using Structural Equation Modeling-Partial Least Squares (SEM-PLS) with SmartPLS 4.0.

Results: The results indicate that workload and job insecurity have a positive and significant effect on work stress. Workload and work stress have a significant negative effect on employee performance, whereas job insecurity has no significant direct effect on performance. Work stress partially mediates the effect of workload on performance and fully mediates the effect of job insecurity on performance, confirming that excessive workload and job insecurity reduce courier performance mainly by elevating psychological work stress.

Conclusion and suggestion: These findings confirm that workload and job insecurity significantly increase work stress, which in turn reduces employee performance. Shopee Express management is advised to manage workloads more proportionally, improve transparency of its incentive and partnership systems, and develop work stress management programs to sustain courier performance.

INTRODUCTION

The growth of the digital economy in Indonesia in the last few years has shown a consistent increasing trend as the use of internet becomes more widespread and the pattern of society consumption changes. In 2024, the number of e-commerce businesses in Indonesia reached 4.40 million. This figure represents a 15.3% increase compared to the previous year. Besides that, 42.02% of business units have utilized various digital sales channels such as marketplaces, social media, and instant messaging apps as platforms for conducting their sales activities. (BPS, 2025). Most of the transactions were carried out through instant messaging applications by 94.76% meaning that the transaction process is carried out quickly and in real-time, so a responsive goods delivery system is needed.

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These changes in transaction patterns directly impact the need for fast distribution of goods. BPS data shows that 48.03% of e-commerce businesses use direct delivery by sellers, while 43.68% rely on third-party or internal courier or logistics services. This condition is further exacerbated during promotional campaign periods and National Online Shopping Day, where the number of orders can surge significantly in a short time, thereby increasing operational pressure on the logistics sector, particularly on couriers tasked with delivering goods to customers.

The rapid growth of e-commerce has led to a significant increase in package shipment volumes, resulting in a heavier workload for couriers, but these operational demands have not been matched by improvements in the status or welfare of their workforce. Most couriers still have gig worker status, namely informal partner workers without a permanent employment relationship, so they work under high pressure with minimal work protection, incentive-based income without a basic salary, and the lack of guaranteed BPJS Employment protection. The Ministry of Manpower noted that there were approximately 4.4 million freelance workers in the transportation and logistics sector in Indonesia in 2025, while the Platform Worker Protection Bill, which was targeted for completion in 2025, was only passed in mid-2026. This means that millions of freelance workers, including logistics couriers, lack adequate legal safety nets regarding wages, social security, occupational safety, or certainty of working hours.

Based on Goodstats data (2025), Shopee dominates the Indonesian e-commerce market with the highest number of active users, transaction volume, and frequency of application visits compared to other platforms, followed by the development of an internal logistics ecosystem through Shopee Express as an in-house delivery fleet, in contrast to competitors who still rely on third-party logistics partners. High transaction volumes mean Shopee Express handles millions of packages every day, especially during peak seasons, making the workload pressure on its couriers the most representative of the national e-commerce logistics industry. Supported by the growth of the transportation and warehousing sector in Cirebon City by 8.54% in 2024 (Cirebon City Statistics Agency, 2025), this study is considered capable of describing the Workload phenomenon and courier performance in the e-commerce logistics ecosystem more broadly.

Shopee Express has three operational hubs in Cirebon Regency, namely the Palimanan Hub, the Depok Hub, and the Kedawung Hub, with a different number of couriers in each hub according to the delivery area coverage and the volume of packages handled, as presented in Table 1.

Table 1. Number of Couriers at Each Shopee Express Hub in Cirebon Regency

Hub	Number of Couriers
Palimanan	61
Depok	25
Kedawung	79
Total	165

Source: Shift Lead Shopee Express Hub Palimanan, Depok, and Kedawung

The difference in the number of couriers at each distribution center reflects the variation in operational capacity and delivery distribution load in each region. Couriers are the spearhead of service and the group of workers most vulnerable to work pressure, as they are required to meet daily delivery targets with high mobility, face spikes in package volumes during the same date, flash sales, and Harbolnas, and work in a gig worker system with minimal income certainty and job protection. Initial observation results show that couriers have to divide their focus between delivery targets, inbound packages, zone divisions, and customer conditions simultaneously, some couriers even still work until the evening because the second delivery trip is only released around 15.00. These findings are further supported by the results of a preliminary survey, which indicate that 70–90% of respondents stated that working as a courier requires the ability to think quickly and involves considerable physical exertion.

In addition to workload, uncertainty about partnership status also contributes to psychological stress for couriers. The threat of account suspension, fluctuating order volumes, and instability of incentive-based income contribute to persistent job insecurity. Greenhalgh & Rosenblatt (1984) defines job insecurity as an individual's powerlessness to maintain job continuity when that job is threatened, while Urbanaviciute et al (2021) emphasized that the perception of uncertainty can cause psychological stress such as anxiety and work stress. An internal report on the Delivery Success Rate (DSR) shows that the delivery success rate tends to decline during flash sales and double-day promotions compared to regular business days. These findings suggest that increased work pressure during these periods may affect the quality of service provided by couriers in the field.

Various studies in the fields of human resource management and logistics indicate a negative relationship between suboptimal workload management and individual performance. This, in turn, can lead to a decline in the organization's overall effectiveness (Dabral & Purohit, 2023; Sitorus & Immamah, 2026). Previous studies regarding the relationship between workload, job insecurity, work stress, and employee performance still show mixed results. Nasution et al (2021) found that physical and mental workload on expedition couriers increases work fatigue, but Umar (2022) as well as Naru & Rehman (2020) several studies have shown that the effect of job insecurity on employee performance is not always direct. Rather, this effect tends to manifest through increased psychological stress experienced by employees, which acts as a mediating variable (Hallo et al., 2022). The difference in empirical findings, coupled with the lack of studies in the context of gig economy partner couriers in second-tier cities such as Cirebon, form the basis for the research gap that prompted this study.

Based on the description, this study aims to analyze and test the influence of Workload and job insecurity on employee performance of Shopee Express courier partners in Cirebon, through both direct and indirect pathways, with job stress serving as a mediating variable. Thus, the findings of this study are expected to contribute to the development of the Job Demands–Resources Theory, particularly in the context of platform workers, as well as practical contributions for management in formulating more humanistic human resource management policies for courier partners.

LITERATURE REVIEW

Job Demands-Resources (JD-R) Theory

The Job Demands–Resources (JD-R) theory serves as the conceptual framework used in this study to explain the relationships among the constructs under examination put forward by Demerouti et al (2001) and further developed by (Bakker & Demerouti, 2007). According to this theory, every type of job is considered to have characteristics that fall into two main categories, namely job demands and job resources. Job demands, such as excessive workload and job uncertainty, if not balanced with adequate resources will trigger a negative energy process in the form of psychological tension (strain) The impact of this problem can be seen in a decline in individual well-being, followed by a decline in performance. In connection with the research conducted, workload and job insecurity are positioned as job demands faced by Shopee Express courier partners, work stress represents the psychological strain or tension that arises due to these demands, while employee performance is an outcome influenced by the strain process. The Job Demands Resources (JD-R) framework explains that the relationship between job demands and performance can occur through both direct and indirect pathways, meaning that the relationship is not always direct, but can be mediated by psychological conditions such as work stress, as tested in this research model.

Employee performance

Campbell & Wiernik (2015) defined performance as the actual actions or behaviors carried out by individuals in their work that contribute to achieving organizational goals. Koopmans et al. (2014) explain that employee performance refers to work behavior relevant to organizational goals that can be measured through task performance, contextual performance, and adaptive performance.

Meanwhile, Na-Nan & Na-Nan & Chaiprasit (2018) explains that employee performance is the behavior demonstrated by employees in carrying out their work, which is demonstrated by an individual's success in achieving organizational goals, including the quality of work, the quantity of work completed, and the timeliness of its execution.

From the various definitions put forward by experts, it is clear that employee performance reflects both work achievements and the behavior exhibited while carrying out tasks in support of the organization's goals. Performance is measured by considering the dimensions of work quality, work quantity, and the timeliness of task completion. This study adopts three dimensions Na-Nan & Chaiprasit (2018), that is job quality, job quantity, and job time.

Work stress

Parker & DeCotiis (1983) work stress is viewed as an ongoing condition characterized by work demands, opportunities, or obstacles that individuals must face. Hobfoll (1989) According to the Conservation of Resources Theory, stress occurs when an individual loses important resources or faces the threat of losing those resources. Robbins & Judge (2008) states that stress is a negative reaction experienced by people who are under excessive pressure due to excessive demands, obstacles, or opportunities. Labrague & Petitte (2017) Furthermore, it is explained that work stress arises as an emotional and physical response when an individual's abilities are no longer sufficient to meet the demands of their job. Based on these experts' opinions, From the experts' explanations, it can be understood that the onset of work stress is a consequence of job demands that individuals are unable to cope with effectively, thereby causing psychological strain. Work stress In this study, it was measured across two dimensions according to Parker & DeCotiis (1983), that is time stress and anxiety.

Workload

Hart (2006) explains that workload is the extent of the mental, physical, and time demands an individual experiences when completing a task. Demerouti et al (2001) Workload is defined as a series of job demands that require an individual to sustain physical and psychological effort continuously while performing their job; therefore, if not managed properly, it has the potential to cause work-related fatigue. Based on this view, workload can be defined as the burden of work demands as subjectively perceived by an individual, encompassing mental and physical aspects as well as the time required to complete tasks. Workload in this study was measured using the mental load and physical load dimensions, based on the NASA-TLX framework (Hart, 2006).

Job insecurity

Greenhalgh & Rosenblatt (1984) explains that job insecurity reflects a sense of powerlessness in maintaining job security amid uncertain work conditions. Hellgren et al (2010) classifies job insecurity, two dimensions are used to explain this concept. The first dimension is quantitative job insecurity, which focuses on the risk of job loss, while the second dimension is qualitative job insecurity, which relates to threats to the quality and stability of various aspects of employment, including career opportunities and income growth. Uncertainty regarding the continuity and quality of future employment can give rise to a psychological condition known as job insecurity, as explained in that perspective. Both dimensions Hellgren et al (2010) The indicators used to represent the construct of job insecurity in this study refer to these aspects.

Hypothesis

The Effect of Workload on Work Stress

A heavy workload, whether due to the large number of packages to be delivered, the demand for on-time delivery, traffic conditions, or the pressure during order surges can cause fatigue and mental stress for couriers. Work stress among employees can be triggered by situations in which an individual's capacity is no longer commensurate with the demands of the job. This is supported by research Ramadhani et al (2022) which indicates a positive and significant relationship between workload and the level of work-related stress experienced by employees.

H1: Workload has a positive and significant effect on work stress.

The Effect of Job Insecurity on Work Stress

For couriers most of whom are partners or independent contractors job insecurity can take the form of uncertainty about the number of orders, unstable income, and concerns about their future employment; all of these factors have

the potential to cause work-related stress. Empirical support for this finding can be found in the study by Saputri et al (2020) The study demonstrates that the higher the level of perceived job insecurity among employees, the greater the likelihood of work-related stress, with a statistically significant relationship.

H2: Job insecurity has a positive and significant effect on work stress.

The Effect of Workload on Employee Performance

An excessive workload such as a heavy workload, demanding job targets, tight deadlines, and excessive physical demands can cause employees to experience fatigue, leading to a decline in performance. The findings of this study are consistent with the empirical evidence reported by Kurniawan & Rizki (2022) namely that an increase in workload is significantly associated with a decline in employee performance.

H3: Workload has a significant negative effect on employee performance.

The Effect of Job Insecurity on Employee Performance

Uncertainty about employment status, the threat of job loss, and unstable income can cause psychological stress that leads employees to be less focused, less motivated, and unable to perform their tasks to the best of their ability. This is supported by research Aslami (2019) which shows that an increase in job insecurity is followed by a significant decline in employee performance.

H4: Job insecurity has a significant negative impact on employee performance.

The Effect of Work Stress on Employee Performance

Work performance can be compromised when employees experience excessive work-related stress. This is caused by various factors, including fatigue, reduced concentration, emotional instability, and diminished motivation at work. The relationship between work-related stress and employee performance, as found in this study, has also been identified by Mardiani & Khamdanah (2022) They explain that increased levels of work-related stress are significantly correlated with a decline in employee performance.

H5: Work stress has a significant negative impact on employee performance

The Effect of Workload on Employee Performance through Work Stress

Employees who are assigned excessive workloads, high targets, tight deadlines, and strenuous physical demands tend to experience fatigue and psychological stress, which in turn reduce employee performance. The role of work stress as a mediating variable between workload and performance has also been demonstrated in a study by Nopriani et al (2025) which explains that the effect of workload on performance occurs through an increase in work stress.

H6: Workload affects employee performance through work stress.

The Effect of Job Insecurity on Employee Performance through Work Stress

Work stress can arise as a response to feelings of insecurity about job security. If this situation persists, their effectiveness at work may be compromised, resulting in suboptimal performance. A mechanism in which job stress acts as a mediator between job insecurity and performance has been identified in Umar (2022) study. The results of the study indicate that the effect of job insecurity becomes apparent only after it is mediated by work stress.

H7: Job insecurity affects employee performance through work stress.

The development of the research model began with the integration of theoretical concepts and relevant research findings. This integration resulted in a framework of relationships among variables, as shown in the following illustration:

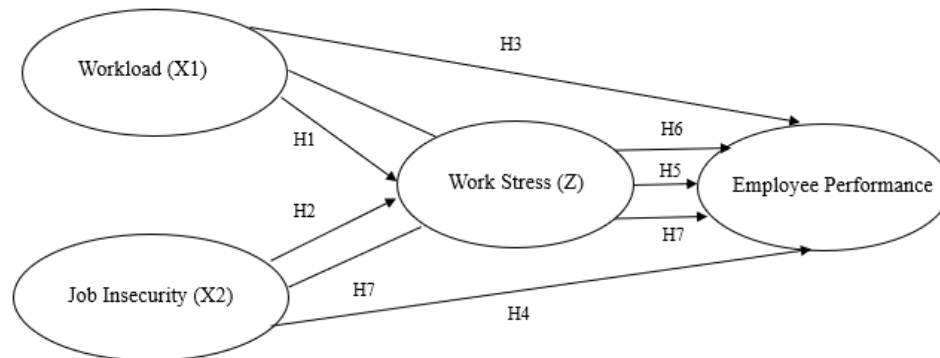


Figure 1 Conceptual Framework

Source: Data processed by the researcher (2026)

RESEARCH METHODS

The focus of this study is to test a model of the effects of workload and job insecurity on employee performance, with work stress serving as a mediating mechanism. To achieve this objective, the study employs a quantitative approach, involving Shopee Express partner couriers working at the Palimanan Hub, the Depok Hub, and the Kedawung Hub in Cirebon Regency as respondents. The collection of research data relied on primary data derived from respondents' answers to an electronic questionnaire. The questionnaire was distributed online using Google Forms.

The total number of subjects included in the study was 165 Shopee Express partner couriers working at the three hubs. Sample selection is based on the characteristics of respondents deemed capable of providing information relevant to the research objectives. Therefore, this study employs non-probability sampling using the purposive sampling method. The characteristics of the respondents that served as the basis for sample selection are as follows:

- (1) is an active Shopee Express courier partner,
- (2) work at the Palimanan Hub, the Depok Hub, or the Kedawung Hub
- (3) have at least three months of work experience.

The Isaac and Michael formula was used as the basis for calculating the required sample size, with a margin of error set at 5%. Therefore, the sample size for the study can be determined as follows:

$$S = \frac{\lambda^2 \cdot N \cdot P \cdot Q}{d^2(N - 1) + \lambda^2 \cdot P \cdot Q}$$

$$S = \frac{3,841 \times 165 \times 0,5 \times 0,5}{0,05^2 \times (165 - 1) + 3,841 \times 0,5 \times 0,5}$$

$$S = \frac{158,44125}{1,37025}$$

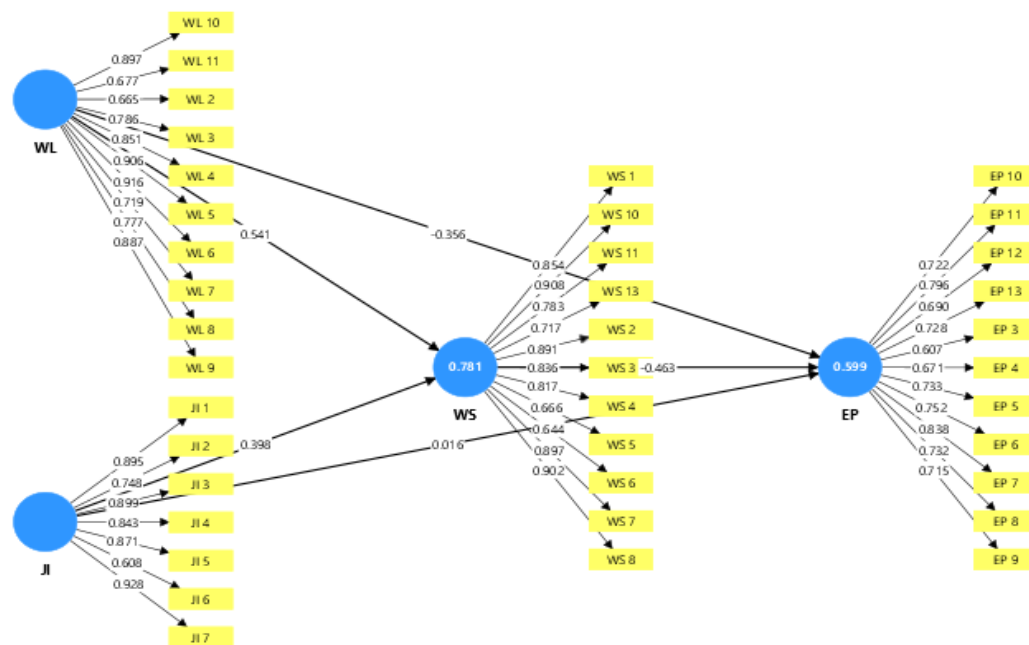
$$S = 115,629$$

S = 116 (Rounding) The sample size for this study was determined to be 116 respondents, based on the calculations that had been performed.

In this study, the development of the research instrument began with identifying indicators that represent each variable. These indicators were then measured using a Likert scale. The research instrument was developed by operationalizing the indicators into measurement items. These items take the form of statements or questions and use a five-point Likert scale for scoring, ranging from “Strongly Agree” to “Strongly Disagree.” (Sugiyono, 2020)

SmartPLS 4.0 software was used to analyze the research data using a Structural Equation Modeling (SEM) approach based on Partial Least Squares (PLS). The research model was evaluated in stages, beginning with tests of construct validity and reliability, followed by an evaluation of the structural relationships among the variables. Once the entire model met the criteria, hypothesis testing was conducted using the bootstrapping method, interpreting the t-statistic and p-value to determine the significance of both direct and indirect effects.

RESULT AND ANALYSIS



Picture 2 Outer Model Test Results

Source: Processed data Primer 2026

The respondents' responses were analyzed using outer-model and inner-model tests. The analysis of the research model begins by ensuring the measurement quality of each construct. This process is carried out through a series of tests, including convergent validity, discriminant validity, and reliability, to assess the accuracy and consistency of the research indicators. Subsequently, the results of the PLS analysis were used as a reference in determining the status of the hypotheses formulated in this study.

Convergent Validity

A reflexive indicator is classified as high if it has a correlation of more than 0.7 with the construct being measured. However, according to the opinion Ghazali (2021) An outer loading value of 0.70 is considered adequate.

Table 2 Outer Loading Value

Variable	Indicators	Factor Loadings	Conclusion
Employee Performance	EP 10	0.722	Valid
	EP 11	0.796	Valid
	EP 12	0.690	Valid
	EP 13	0.728	Valid
	EP 3	0.607	Valid
	EP 4	0.671	Valid
	EP 5	0.733	Valid
	EP 6	0.752	Valid
	EP 7	0.838	Valid
	EP 8	0.732	Valid
Work Stress	EP 9	0.715	Valid
	WS 1	0.854	Valid
	WS 10	0.908	Valid
	WS 11	0.783	Valid
	WS 13	0.717	Valid
	WS 2	0.891	Valid
	WS 3	0.836	Valid
	WS 4	0.817	Valid
	WS 5	0.666	Valid
	WS 6	0.644	Valid
Workload	WS 7	0.897	Valid
	WS 8	0.902	Valid
	WL 10	0.897	Valid
	WL 11	0.677	Valid
	WL 2	0.665	Valid
	WL 3	0.786	Valid
	WL 4	0.851	Valid
	WL 5	0.906	Valid
	WL 6	0.916	Valid
	WL 7	0.719	Valid
Job Insecurity	WL 8	0.777	Valid
	WL 9	0.887	Valid
	JI 1	0.895	Valid
	JI 2	0.748	Valid
	JI 3	0.899	Valid
	JI 4	0.843	Valid
	JI 5	0.871	Valid
	JI 6	0.608	Valid
	JI 7	0.928	Valid

Source: Processed data SmartPLS 4.0

No indicators in the study's measurement model exhibited issues with convergent validity. As shown in Table 2, all indicators within the constructs of Employee Performance, Work Stress, Workload, and Job Insecurity met the criteria for measurement suitability. Although some indicators had outer loadings below 0.70, all of them still met the minimum threshold of 0.60 Based on the evaluation results, the research indicators were deemed adequate and suitable for use as part of further testing (Hair, 2022).

A. Discriminant Validity

Discriminant validity analysis aims to evaluate the distinctiveness of each construct in the research model. This evaluation is conducted to ensure that different constructs do not measure the same phenomenon, but rather represent concepts that differ theoretically.

Table 3 Discriminant Validity

Indicators	Employee Performance	Job Insecurity	Workload	Work Stress
EP 10	0.722	-0.438	-0.516	-0.520
EP 11	0.796	-0.514	-0.531	-0.581
EP 12	0.690	-0.395	-0.482	-0.474
EP 13	0.728	-0.399	-0.496	-0.519
EP 3	0.607	-0.360	-0.407	-0.397
EP 4	0.671	-0.362	-0.460	-0.421
EP 5	0.733	-0.370	-0.415	-0.443
EP 6	0.752	-0.515	-0.623	-0.584
EP 7	0.838	-0.533	-0.630	-0.676
EP 8	0.732	-0.605	-0.661	-0.685
EP 9	0.715	-0.482	-0.562	-0.590
JI 1	-0.566	0.895	0.738	0.712
JI 2	-0.395	0.748	0.502	0.541
JI 3	-0.575	0.899	0.670	0.725
JI 4	-0.600	0.843	0.668	0.748
JI 5	-0.581	0.871	0.730	0.736
JI 6	-0.250	0.608	0.369	0.431
JI 7	-0.615	0.928	0.708	0.766
WL 10	-0.660	0.708	0.897	0.774
WL 11	-0.476	0.450	0.677	0.517
WL 2	-0.479	0.479	0.665	0.444
WL 3	-0.505	0.543	0.786	0.629
WL 4	-0.679	0.654	0.851	0.803
WL 5	-0.662	0.719	0.906	0.766
WL 6	-0.734	0.775	0.916	0.833
WL 7	-0.490	0.538	0.719	0.609
WL 8	-0.580	0.570	0.777	0.629
WL 9	-0.638	0.714	0.887	0.755
WS 1	-0.626	0.743	0.779	0.854
WS 10	-0.710	0.771	0.783	0.908
WS 11	-0.533	0.611	0.619	0.783
WS 13	-0.520	0.582	0.566	0.717
WS 2	-0.723	0.766	0.802	0.891
WS 3	-0.603	0.650	0.732	0.836
WS 4	-0.562	0.623	0.682	0.817
WS 5	-0.502	0.535	0.504	0.666
WS 6	-0.501	0.475	0.516	0.644
WS 7	-0.699	0.770	0.781	0.897
WS 8	-0.694	0.688	0.733	0.902

Source: Processed data SmartPLS 4.0

Based on Table 3, on the results of the cross-loading test, no indicators were found to have higher values on other constructs. Thus, all indicators were determined to meet the criteria for discriminant validity.. Thus, there are no issues with discriminant validity in the research model.

Construct Reliability

The reliability of a research instrument is not assessed based on a single measure, but is evaluated using two reliability indicators: Cronbach's Alpha and Composite Reliability. These two indicators provide information on the ability of each construct to maintain measurement consistency across its subscales (Savitri et al., 2021)

Table 4 Construct Reliability and Validity Scores

Variabel	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Employee Performance	0.911	0.918	0.925	0.530
Job Insecurity	0.925	0.944	0.940	0.696
Workload	0.941	0.953	0.951	0.661
Work Stress	0.948	0.957	0.956	0.665

Source: Processed data SmartPLS 4.0

No issues were found regarding construct reliability or validity based on the evaluation results presented in Table 4. Thus, all research variables were found to meet the testing criteria. The fulfillment of reliability criteria is reflected across all research constructs through Cronbach's alpha and composite reliability values above 0.70. Meanwhile, an Average Variance Extracted (AVE) value of more than 0.50 indicates that the indicators used are capable of adequately explaining their respective constructs. Thus, all indicators are capable of measuring the constructs accurately and consistently, and Instruments that meet the criteria for validity and reliability serve as the foundation for further testing the structural relationships among variables using the PLS-SEM method

Inner Model

Once the measurement model meets the established criteria, the next step is to evaluate the inner model. This step aims to identify the relationships among latent constructs through path significance analysis, the degree of explained variance (R-squared), and effect sizes.

A. R Square (R^2)

The explanatory power of the model was assessed using the R-Square test. This parameter provides an indication of the extent to which exogenous latent constructs can explain the variability of endogenous latent constructs. The R^2 value ranges from 0 to 1, with higher values generally indicating a higher level of predictive power for the model (Hamid and Anwar, 2019).

Table 5 R Square Value

Variable	R-square	R-square adjusted
Employee Performance (Y)	0.599	0.589
Work Stress (Z)	0.781	0.777

Source: Processed data SmartPLS 4.0

Based on Table 5, The structural model used in this study provides sufficient explanatory power for the Employee Performance (Y) variable. This is reflected in the R-Square value of 0.599 and the Adjusted R-Square value of 0.589, which indicate that 58.9% of the variation in employee performance can be explained by the research model. Therefore, the model is categorized as having moderate predictive power. Meanwhile, The extent of variation in the Work Stress (Z) variable that can be explained by the model is evident from the Adjusted R-Square value of 0.777.

This figure indicates that the constructs in the model are able to explain 77.7% of the variation in work stress, with an R-Square value of 0.781. Based on these evaluation results, the model's predictive ability is classified as strong.

B. Hypothesis testing

Testing the research hypotheses is based on the values of the path coefficients, which describe the direction and strength of the relationships between constructs in the model. With reference (Ghozali, 2021), The significance of the relationships among constructs in the research model was evaluated through statistical testing using the t-statistic and p-value. The research hypothesis was considered supported if the t-statistic met the test threshold that is, was greater than 1.96 and the p-value indicated a significance level below 0.05. A summary of the structural model estimation results is presented in the following table.

Table 6 Hypothesis Testing

NO	Hipotesis	Original sample	T-value	P-values	Conclusion
H1	Workload -> Work Stress	0.541	6.345	0.000	Supported
H2	Job Insecurity -> Work Stress	0.398	4.283	0.000	Supported
H3	Workload -> Employee Performance	-0.356	2.187	0.029	Supported
H4	Job Insecurity -> Employee Performance	0.016	0.133	0.894	Not Supported
H5	Work Stress -> Employee Performance	-0.463	2.569	0.010	Supported
H6	Workload -> Work Stress -> Employee Performance	-0.250	2.290	0.022	Supported
H7	Job Insecurity -> Work Stress -> Employee Performance	-0.184	2.378	0.017	Supported

Source: data processed using SmartPLS 4.0

Path analysis of the research model confirmed that Workload (X1) is one of the factors influencing Work Stress (Z). The test results show a path coefficient of 0.541, with a significance level that meets the criteria based on a t-statistic of 6.345 and a p-value of 0.000. These findings support the acceptance of H1, meaning that an increase in workload is associated with an increase in employees' work stress.

The influence of job insecurity (X2) on work stress (Z) can be explained by the results of the analysis of the relationships among constructs in the research model. A path coefficient of 0.398 indicates a positive direction of influence, while a t-statistic of 4.283 and a p-value of 0.000 indicate that this influence is significant. Based on these results, H2 is accepted, meaning that an increase in job insecurity is associated with an increase in employees' work stress.

The path coefficients in the research model indicate an inverse relationship between Workload (X1) and Employee Performance (Y). A path coefficient of -0.356 indicates a negative effect, while the results of the significance test with a t-statistic of 2.187 and a p-value of 0.029 confirm that this relationship is statistically significant. Thus, the third hypothesis (H3) is accepted, meaning that an increase in workload has the potential to reduce employee performance..

There is insufficient empirical evidence to support the existence of an effect of Job Insecurity (X2) on Employee Performance (Y). Although the path coefficient indicates a positive direction of 0.016, the results of the significance test based on a t-statistic of 0.133 and a p-value of 0.894 show that this relationship is not significant. Therefore, the fourth hypothesis (H4) is rejected, meaning that job insecurity was not found to affect employee performance in this study

The interpretation of the bootstrap results indicates that the relationship between Work Stress (Z) and Employee Performance (Y) is negative and statistically significant. The path coefficient of -0.463 indicates an inverse relationship, while the t-statistic of 2.569 and the p-value of 0.010 meet the criteria for hypothesis testing. Based on

these results, H5 is accepted, meaning that an increase in work stress has the potential to reduce employee performance levels.

The presence of a mediating variable in this study was confirmed by the results of the indirect effect test. Work Stress (Z) was found to mediate the relationship between Workload (X1) and Employee Performance (Y), as indicated by a path coefficient of -0.250, a t-statistic of 2.290, and a p-value of 0.022. These results led to the acceptance of H6, meaning that workload not only has a direct effect but also influences performance through work stress.

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DISCUSSION

Workload emerged as a strong driver of work stress, confirming H1. In practical terms, the heavier the mental, physical, and time demands couriers face while completing deliveries particularly during peak season and flash-sale periods the more psychological pressure they carry into their daily routine. In substance, the observation results show that couriers must divide their focus among delivery targets, inbound packages, zone assignments, and customer conditions simultaneously; in fact, some couriers still have to sort packages during two delivery trips before serving customers in the afternoon. The pre-survey results further reinforce these findings, as the majority of respondents acknowledged that working as a courier is physically exhausting and requires quick thinking to manage deliveries. Theoretically, these results are consistent with the health impairment process in the Job Demands-Resources Theory (Demerouti et al., 2001), the results of the analysis in this study show a pattern similar to that found in the study Ramadhani et al. (2022) and Nasution et al. (2021) Working conditions that demand both physical and mental stamina contribute to increased fatigue and work-related stress among delivery couriers.

H2 is likewise supported: job insecurity contributes positively and significantly to work stress. For couriers, not knowing whether their partnership will continue, fearing sudden account suspension, and watching incentive-based income fluctuate week to week together feed a persistent undercurrent of anxiety. The results of initial observations and interviews revealed indications of job insecurity among package couriers in the form of concerns about the stability of daily order volumes, a finding reinforced by the pre-survey results, the findings highlight that concerns about maintaining their partnership status were prevalent among the majority of respondents. This pattern echoes Urbanaviciute et al. (2021), who identified perceived job insecurity as a significant predictor of work stress. The same direction of findings can also be observed in the study by Saputri et al. (2020), who reported a significant positive link between job insecurity and employee work stress in their own sample.

Turning to performance, H3 also finds support through a negative and significant path from workload. When couriers must sort packages across two delivery runs before they can even begin serving afternoon customers, the toll on their energy and time shows up directly as lower-quality, lower-volume, and later-than-target deliveries. This situation is also reflected in internal Delivery Success Rate (DSR) data, which shows a decline in delivery performance on flash sale days or “twin-date” days compared to normal days, indicating that the surge in workload has a tangible impact on couriers’ performance in the field. Comparable evidence was presented by Kurniawan & Rizki (2022), who identified high physical and mental job demands as direct antecedents of lower employee performance.

H4, by contrast, is not supported: job insecurity shows a negligible and statistically insignificant relationship with performance. Whatever unease couriers feel about the durability of their partnership status, it does not by itself translate into missed delivery targets. This finding is believed to stem from the fact that a performance-based incentive system encourages couriers to maintain their work output even when they feel insecure about the stability of their jobs a common characteristic of gig workers who tend to tolerate short-term uncertainty in order to maintain their daily income. These results differ from those of Aslami (2019), who found a significant negative direct effect in the context of permanent outsourced employees, earlier investigations likewise suggest that the influence of job insecurity

becomes evident only after passing through mediating variables. The results obtained for H7 provide additional support for this pattern.

Work stress carries the strongest negative influence on performance in the model, supporting H5. As couriers accumulate more anxiety and feel greater time pressure, their output in quality, quantity, and punctuality alike declines correspondingly. The pre-survey results indicate that the majority of respondents exhibited signs of work-related anxiety stemming from the dimension of time stress, which was also reflected in the pre-survey results on employee performance, specifically the continued occurrence of tardiness and difficulties in meeting daily targets. This pattern matches Robbins & Judge (2008), who argue that excessive stress erodes individual work effectiveness, and echoes Mardiani & Khamdanah (2022) in their study of production department employees.

The mediation analysis lends support to H6: work stress channels part of workload's effect on performance. Because workload still exerts a significant direct effect on performance even with this pathway included (H3), work stress functions here as a partial rather than a full mediator. In other words, a high workload reduces couriers' performance both directly and through the increased psychological stress it causes. Evidence from Nopriani et al. (2025), indicates that work stress represents the pathway linking workload with the performance of BPS Statistical Partners in Central Bengkulu Regency. This conceptual pattern is further supported by the findings of Masruri & Ekhsan (2022) and Aryandha (2022) who likewise identified the intermediary role of work stress in explaining the workload and employee performance relationship.

H7 is likewise supported, with work stress mediating the effect of job insecurity on performance. Here the pattern differs from H6: because job insecurity carries no significant direct effect on performance (H4), work stress operates as a full mediator the sole channel through which insecurity ultimately erodes performance. Uncertainty regarding partnership status does not directly reduce couriers' performance, but is fully mediated through the accumulation of anxiety and psychological stress, which ultimately leads to a decline in work performance. This full mediation pattern is relevant to the characteristics of gig workers, who tend to tolerate short-term job uncertainty in order to maintain their daily income but are unable to withstand the psychological stress that accumulates over the long term. These findings are consistent with Umar (2022) and Naru & Rehman (2020), who concluded that job insecurity influences employee performance indirectly by increasing work stress. Related evidence has also been presented by Hallo et al. (2022) who demonstrated that sustained job insecurity is linked to poorer psychological functioning and less effective work behavior among employees operating in high-pressure environments.

CONCLUSION

This study presents an analysis of the relationship between workload, job insecurity, work stress, and employee performance among Shopee Express partner couriers at the Palimanan Hub, the Depok Hub, and the Kedawung Hub in Cirebon Regency, with work stress serving as the mediating variable in the relationship between the independent and dependent variables. The relationship patterns identified in this study indicate that workload and job insecurity contribute to increased work stress. Conversely, employee performance tends to decline as workload and work stress increase. However, no statistical evidence was found to support a direct effect of job insecurity on employee performance. An analysis of the mediating effects revealed two distinct patterns of relationships. In the relationship between workload and employee performance, work stress acts as a partial mediator, whereas in the relationship between job insecurity and employee performance, work stress acts as a full mediator. These findings confirm that increased workload and job insecurity can reduce courier performance by increasing work stress levels.

Future studies could focus on expanding the range of variables included in the research model. In addition to workload, job insecurity, and work stress, variables such as social support, compensation, job satisfaction, and work-life balance are worth considering, as they have the potential to provide a more comprehensive explanation of employee performance. Furthermore, the generalizability of the research findings could be improved if future studies involve a larger number of companies operating in the logistics sector or other gig economy platforms and involve a more diverse group of respondents to ensure the research findings have a broader level of generalizability. The use of more diverse research approaches, such as mixed methods, such efforts can broaden our understanding of the dynamics

underlying the emergence of work-related stress, while also providing a more in-depth explanation of its impact on employee performance..

Therefore, Shopee Express management is advised to manage workloads more proportionally by ensuring an even distribution of packages, setting realistic delivery targets, and establishing a balanced work schedule to minimize work-related stress. In addition, the company needs to improve transparency regarding performance evaluations, incentive systems, and the continuity of partnership status to reduce perceptions of job insecurity. Empirical evidence regarding the mediating role of work stress provides a basis for companies to strengthen policies related to work stress management. Through the implementation of targeted programs, companies can create more conducive working conditions, thereby ensuring that improvements in courier performance are sustained over the long term..

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