



Building Retention: How Occupational Safety, Job Stress, and Fatigue Shape Turnover Intention in the Indonesian Construction Industry

Membangun Retensi: Bagaimana Keselamatan Kerja, Stres Kerja, dan Kelelahan Membentuk Turnover Intention di Industri Konstruksi Indonesia

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Info Article

| **Submitted:** 2 August 2026 | **Revised:** 8 September 2026 | **Accepted:** 13 September 2026

| **Published:** 13 September 2026

How to cite: Fadhlur Rahman, etc., "Building Retention: How Occupational Safety, Job Stress, and Fatigue Shape Turnover Intention in the Indonesian Construction Industry", *Sociale : Journal of Social and Political Sciences*, Vol. 2 No. 2, 2026, p. 297-314.

ABSTRACT

Employee retention remains a critical issue in the Indonesian construction industry, where a high intention to leave can interrupt project continuity, increase operational costs, and weaken organisational performance. Although occupational health and safety (OHS), job stress, and work fatigue have each been associated with turnover intention, empirical studies examining their simultaneous effects within the Indonesian construction context are still limited. This study aims to analyse the influence of these three workplace factors on turnover intention among construction workers. A quantitative explanatory approach was employed using survey data collected from 150 construction workers involved in projects across Indonesia. The proposed relationships were evaluated through PLS-SEM. The findings reveal that occupational health and safety significantly reduces turnover intention, whereas job stress significantly increases employees' intention to leave their organisations. In contrast, work fatigue is not significant for turnover intention. Together, the three independent variables account for 35.8% of the variance in turnover intention, indicating a moderate level of explanatory capability. The study highlights the importance of strengthening workplace safety practices and implementing effective stress management initiatives to improve employee retention in construction organisations. These findings contribute to the study on workforce retention in the Indonesian construction sector while offering practical guidance for organisations seeking to establish safer, healthier, and more sustainable working environments.

Keywords: work fatigue; job stress; occupational health and safety; turnover intention; construction industry

ABSTRAK

Tingginya tingkat turnover intention pada sektor konstruksi di Indonesia berisiko memicu pembengkakan biaya operasional, keterlambatan proyek, hingga penurunan kinerja organisasi secara keseluruhan. Kendati aspek keselamatan dan kesehatan kerja (K3), stres kerja, serta kelelahan kerja kerap diidentifikasi sebagai pemicu keputusan pekerja untuk mengundurkan diri, pengujian secara simultan dalam lanskap industri konstruksi nasional masih minim dilakukan. Oleh karena itu, penelitian ini mengevaluasi peran ketiga faktor lingkungan kerja tersebut dalam memengaruhi turnover intention para pekerja proyek. Melalui pendekatan kuantitatif eksplanatori, data dikumpulkan via survei terhadap 150 pekerja konstruksi dari berbagai proyek di Indonesia. Pengujian hipotesis dan analisis hubungan antarkonstruksi kemudian dilakukan menggunakan metode Partial Least Squares Structural Equation Modeling (PLS-SEM). Hasil analisis menunjukkan bahwa penerapan K3 yang optimal terbukti efektif menekan turnover intention. Sebaliknya, tingkat stres kerja yang tinggi menjadi pendorong utama meningkatnya kecenderungan pekerja untuk meninggalkan perusahaan. Sementara itu, kelelahan kerja tidak ditemukan memiliki pengaruh langsung yang signifikan terhadap turnover intention. Secara keseluruhan, ketiga variabel tersebut mampu menjelaskan 35,8% variansi turnover intention, yang mengindikasikan tingkat daya jelasi model pada kategori moderat. Implikasi praktis dari studi ini menegaskan bahwa penguatan standar K3 dan intervensi manajemen stres yang terukur merupakan kunci utama dalam menjaga retensi tenaga kerja di industri konstruksi. Selain memperkaya literatur empiris

mengenai dinamika SDM konstruksi di Indonesia, temuan ini menjadi rujukan strategis bagi manajemen dalam merancang lingkungan kerja yang lebih aman, sehat, dan berkelanjutan.

Kata kunci: kelelahan kerja; stres kerja; kesehatan dan keselamatan kerja; turnover intention; industri konstruksi.

Introduction

The construction industry has become one of the key sectors supporting economic growth by creating employment opportunities and facilitating infrastructure development. Despite its strategic contribution, construction work is widely recognized as one of the most demanding occupational environments because employees routinely encounter hazardous conditions, intensive physical activities, prolonged working hours, and strict project deadlines. These workplace characteristics place considerable physical and psychological pressure on employees, which may reduce their well-being, weaken organisational attachment, and increase their intention to seek employment elsewhere (Ghaisani & Susilowati, 2025; Selcuk & Gundes, 2025).

For construction companies, employee turnover represents more than the loss of human resources. The departure of experienced personnel often interrupts project continuity, increases recruitment and training expenses, and reduces operational efficiency. Frequent workforce replacement may also affect project quality, organisational competitiveness, and business sustainability (Li et al., 2025). Identifying the factors that encourage employees to remain with their organisations has become an important issue for both researchers and practitioners in construction management.

Turnover intention refers to an employee's conscious willingness or plan to voluntarily leave the current organisation before the actual resignation occurs. Previous studies consistently identify turnover intention as the strongest predictor of future employee turnover (Hazeen Fathima & Umarani, 2022; Mobley et al., 1978). The Job Demands–Resources (JD-R) Model explains this phenomenon by proposing that employees experience strain when workplace demands exceed the organisational and personal resources available to cope with those demands. While excessive job demands consume employees' physical and psychological energy, adequate organisational resources promote motivation, enhance well-being, and strengthen employees' commitment to remain within the organisation (Demerouti et al., 2001; Seo et al., 2025).

A complementary explanation is provided by the Conservation of Resources (COR) Theory, which suggests that individuals continuously attempt to acquire, preserve, and protect valuable resources. When employees perceive that these resources are threatened or gradually depleted due to unfavourable working conditions, psychological stress is likely to emerge. This condition increases the possibility of withdrawal behaviours, including turnover intention (Hobfoll, 1989;

Seo et al., 2025). Guided by these theoretical perspectives, the present study focuses on three workplace factors – occupational health and safety (OHS), job stress, and work fatigue – as potential determinants of turnover intention among construction workers in Indonesia.

Within this framework, occupational health and safety (OHS) represents an essential organisational resource because it reflects management's commitment to protecting employees from workplace hazards while promoting a safe working environment. When workers perceive that their organisation consistently prioritises their health and safety, they are more likely to develop trust and remain with the company. Consequently, effective OHS practices have frequently been associated with lower turnover intention and improved employee retention (Sam-Mensah et al., 2025). In contrast, inadequate safety management may increase employees' concerns regarding their well-being and reduce their willingness to continue working within the organisation.

Another workplace condition that has consistently attracted scholarly attention is job stress. Employees may experience stress when they face excessive workloads, unclear job expectations, interpersonal conflict, or persistent time pressure. If these conditions continue without sufficient organisational support, psychological strain may intensify and gradually encourage employees to consider leaving their jobs (Hadiyanti & Sari, 2025; Parker & DeCotiis, 1983). Although job stress and burnout are closely related, they should not be regarded as identical constructs. Burnout generally develops after prolonged exposure to chronic stress and is characterised by emotional exhaustion, cynicism, and diminished professional efficacy. Job stress, meanwhile, reflects employees' immediate psychological and physiological responses to demanding work situations before burnout fully develops (Ardhianti & Sary, 2024).

Work fatigue constitutes another consequence of demanding work environment, particularly within the construction industry where employees routinely perform physically intensive tasks under challenging conditions. Fatigue may reduce physical stamina, impair concentration, and limit employees' ability to perform their responsibilities effectively. Prolonged fatigue can also weaken motivation and organisational attachment, potentially increasing employees' intention to seek alternative employment (Frone & Tidwell, 2015; Ruivo et al., 2023). Nevertheless, previous empirical findings have not always demonstrated a consistent relationship between work fatigue and turnover intention. This suggests that this relationship warrants further investigation in different occupational settings.

Previous studies have examined numerous antecedents of turnover intention in construction organisations, including compensation, career development, workload, etc (Adi & Sary, 2025; Aszahrah & Sary, 2026; Fathan & Sary, 2025;

Moslem & Sary, 2021; Prosarani & Putro, 2025; Sasanti et al., 2024). However, research that simultaneously investigates occupational health and safety, job stress, and work fatigue among construction workers in Indonesia remains limited. Nevertheless, these variables have often been explored separately or within different industrial contexts (Pei et al., 2024; Sam-Mensah et al., 2025; Song & An, 2022). Addressing this research gap, the present study employs Partial Least Squares Structural Equation Modelling (PLS-SEM) to examine the combined effects of these three workplace factors on turnover intention. By integrating the Job Demands–Resources (JD-R) Model and the Conservation of Resources (COR) Theory, this research aims to enrich the literature on employee retention while providing practical recommendations for strengthening workforce sustainability in Indonesia's construction industry.

To examine these dynamic relationships within the Indonesian construction context, the conceptual framework for this study is illustrated in Figure 1. Based on the theoretical integration and empirical background, the following hypotheses are proposed:

- H1: Work fatigue has a positive effect on turnover intention among construction workers in Indonesia;
- H2: Job stress has a positive effect on turnover intention among construction workers in Indonesia;
- H3: Occupational health and safety (OHS) has a negative effect on turnover intention among construction workers in Indonesia; and
- H4: Work fatigue, job stress, and occupational health and safety (OHS) simultaneously affect turnover intention among construction workers in Indonesia.

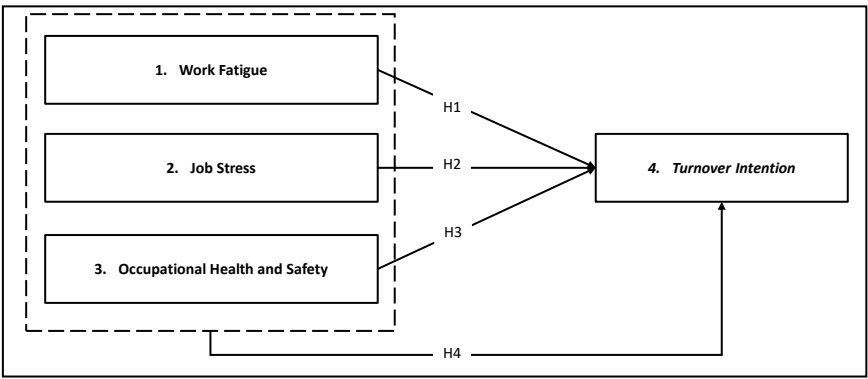


Figure 1 Research Framework

Research Methods

2.1 Research Design

This study adopted a quantitative explanatory research design using a cross-sectional survey to examine the relationships among occupational health and safety

(OHS), job stress, work fatigue, and turnover intention in the Indonesian construction industry. This design is appropriate for explanatory studies because it facilitates the empirical testing of hypothesized relationships among multiple constructs while providing an efficient approach for collecting data (Saunders et al., 2023; Schindler, 2019; Sekaran & Bougie, 2019).

2.2 Population and Sample

The target population comprises construction workers in Indonesia, which totalled over 8.7 million personnel in 2025 according to the Central Bureau of Statistics (CNN Indonesia, 2025). Due to the lack of a comprehensive, centralised sampling frame listing all national construction workers, a non-probability purposive sampling method was employed (Saunders et al., 2023; Sekaran & Bougie, 2019). Specific inclusion criteria were set: respondents must be active construction workers in Indonesia with at least one year of project experience.

The final analysed sample consisted of 150 valid respondents. This sample size was determined following the structural equation modelling (SEM) guideline by Hair et al. (2019), which specifies a minimum sample size based on 5 to 10 times the number of measurement indicators ($n = 10 \times 15 \text{ indicators} = 150$). Furthermore, for PLS-SEM estimations, a sample size of 150 provides sufficient statistical power to detect medium effect sizes while maintaining model stability (Hair et al., 2021).

Data were gathered online via Google Forms distributed to qualified construction workers across various infrastructure and building projects in Indonesia. Participants were also encouraged to forward the survey link to peers meeting the criteria. While the non-probability approach restricts universal statistical generalisation across the entire national workforce, it is methodologically appropriate when population sampling frames are unavailable and provides valuable empirical insights into workplace behaviours in the sector (Schindler, 2019).

2.3 Research Instrument and Data Collection

Data were collected using a structured questionnaire designed to measure four latent variables: occupational health and safety, job stress, work fatigue, and turnover intention. All measurement items were adapted from previously validated instruments.

Work fatigue was measured using the FAS developed by Michielsen et al. (2004) and subsequently adapted by Boekoesoe et al. (2023). The instrument captures employees' perceptions of both physical and psychological fatigue.

Job stress was assessed using the JSS introduced by Parker & DeCotiis (1983) and later adapted for the Indonesian context by Hadiyanti & Sari (2025). This scale evaluates two principal dimensions of job stress, namely time pressure and work-related anxiety.

Occupational health and safety were evaluated using the NOSACQ, originally developed by Kines et al. (2011) and modified by Summers et al. (2023). The instrument focuses on employees' perceptions of workplace safety climate and management's commitment to maintaining occupational safety.

Turnover intention was measured using indicators derived from Mobley et al. (1978) and later adopted by Hazeen Fathima & Umarani (2022), which assess employees' intentions and willingness to voluntarily leave their current organisations.

All research variables were measured using a 4-point Likert scale, ranging from 1 ("Strongly Disagree") to 4 ("Strongly Agree"). The forced-choice 4-point scale was intentionally adopted to eliminate the neutral midpoint option. This approach minimizes central tendency bias and social desirability bias, thereby encouraging respondents to express a definitive stance and improving data discrimination (Hadi, 2000).

Before the main survey, the questionnaire underwent a review process to ensure that all statements were clear, understandable, and relevant to construction workers. Data collection was conducted directly at construction project sites.

2.4 Data Analysis

Data analysis was performed using Partial Least Squares Structural Equation Modelling (PLS-SEM). It is a variance-based structural equation modelling technique designed to evaluate complex causal-predictive relationships among latent constructs. PLS-SEM operates by maximising the explained variance (R^2) of the dependent constructs through a two-step analytical procedure. First, evaluating the measurement model (outer model) for reliability and validity. Then, followed by testing the structural model (inner model) for hypothesized structural paths and predictive capabilities. This approach is particularly suitable for this study because PLS-SEM handles non-normally distributed data effectively, operates reliably with moderate sample sizes, and is well-suited for exploratory research and predictive applications in management and organisational research (Hair et al., 2021).

Results and discussion

3.1 Respondent Characteristics

The analysis was conducted using responses from 150 construction workers who satisfied the predetermined participation requirements. The demographic profile indicates that the sample was dominated by male respondents. The male respondents accounted for 57.3% of the participants, while female respondents represented the remaining 42.7%.

With respect to age, most respondents were between 25 and 34 years old (70.0%), followed by employees aged 35–44 years (19.3%). Participants younger than 25 years accounted for 10.0% of the sample, whereas only 0.7% were aged 45

years or above. This distribution suggests that the majority of respondents were within the productive working-age group commonly involved in construction activities.

The respondents also represented different levels of professional experience. Employees with four to six years of construction experience formed the largest proportion (44.0%), followed by those with one to three years of experience (36.7%). Workers with seven to ten years of experience accounted for 11.3%, while those with more than ten years of experience represented 8.0% of the sample.

Regarding occupational roles, field workers constituted the largest group (40.0%), followed by supervisors (29.3%), engineers (24.7%), and employees occupying other positions (6.0%). Overall, these demographic characteristics indicate that the sample adequately reflects a range of ages, work experiences, and job positions. Thereby, it provided a suitable basis for examining turnover intention among construction workers.

Table 1 Demographic Characteristics of Respondents (N = 150)

Characteristic	Category	Frequency (n)	Percentage (%)
Gender	Male	86	57.3
	Female	64	42.7
Age	< 25 years old	15	10.0
	25–34 years old	105	70.0
	35–44 years old	29	19.3
	≥ 45 years old	1	0.7
Work Experience	1–3 years	55	36.7
	4–6 years	66	44.0
	7–10 years	17	11.3
	> 10 years	12	8.0
Job Position	Site worker / Field worker	60	40.0
	Supervisor	44	29.3
	Engineer	37	24.7
	Others	9	6.0

3.2 Descriptive Statistics

The results indicate that respondents generally reported relatively low levels of work fatigue, job stress, and turnover intention, with mean scores of 2.129, 2.353, and 2.451, respectively. Conversely, occupational health and safety recorded the highest average score (3.613). This reflects respondents' positive perceptions of safety implementation within their workplaces.

The dispersion of responses also provides additional insight. Occupational health and safety produced the smallest standard deviation. This indicates that respondents expressed relatively consistent perceptions regarding workplace safety practices. In comparison, work fatigue, job stress, and turnover intention exhibited greater variability. This suggests that employees experienced these conditions at different levels. Taken together, these descriptive findings imply that the participating organisations have generally established favourable safety practices while maintaining comparatively low levels of stress, fatigue, and employees' intention to leave.

Table 2 Descriptive Statistics of the Study Variables

Variable		Minimum	Maximum	Mean	Standard Deviation	Interpretation
Work Fatigue	50	1.00	4.00	2.129	0.824	Low
Job Stress	50	1.00	4.00	2.353	0.802	Low
Occupational Health and Safety	50	2.30	4.00	3.613	0.383	Very High
Turnover Intention	50	1.00	4.00	2.451	0.898	Low

3.3 Measurement Model Assessment

Indicator reliability was first examined using outer loading values. The majority of measurement items exceeded the recommended threshold of 0.70. This indicates that they contributed adequately to their respective latent constructs. Although several indicators measuring occupational health and safety produced lower loading values than those observed for the other constructs, they were retained because they represented conceptually important dimensions of workplace

safety climate. Only indicator O20 was excluded from the model due to its insufficient loading value.

Table 3 Indicator Reliability (Outer Loadings)

Construct	Indicator	Outer Loading
Work Fatigue	F1	0.746
	F2	0.809
	F3	0.715
	F5	0.852
	F6	0.825
	F7	0.862
	F8	0.849
	F9	0.839
Job Stress	S1-S13	0.548–0.869
Occupational Health and Safety	O1–O24	0.385–0.725
Turnover Intention	T1	0.860
	T2	0.906
	T3	0.761

The internal consistency of all constructs achieved values above the recommended threshold of 0.70. This indicate that the measurement scales consistently captured the intended latent variables and demonstrated satisfactory reliability.

Convergent validity was assessed using the AVE number. All constructs except occupational health and safety, all exceeded the recommended minimum value of 0.50. This confirms adequate convergent validity. Although the occupational health and safety construct produced an AVE below the conventional criterion, it was retained because its reliability indicators remained acceptable and the construct represented multiple theoretically important dimensions of workplace safety.

Table 4 Reliability and Convergent Validity

Construct	Cronbach's Alpha	Composite Reliability	AVE
Work Fatigue	0.927	0.940	0.662
Job Stress	0.947	0.953	0.614
Occupational Health and Safety	0.921	0.925	0.387
Turnover Intention	0.798	0.881	0.713

The Fornell–Larcker assessment indicated a degree of overlap between the work fatigue and job stress constructs. However, the highest HTMT is still below

0.90, supporting the conclusion that discriminant validity was acceptable. Accordingly, the measurement model satisfied the requirements and was considered suitable.

Table 5 Discriminant Validity

Construct	Fornell-Larcker	Highest HTMT
Work Fatigue	Not satisfied	0.891
Job Stress	Not satisfied	0.891
Occupational Health and Safety	Satisfied	0.340
Turnover Intention	Satisfied	0.621

3.4 Structural Model Assessment

The VIF values for all predictor variables were below the recommended threshold. Consequently, occupational health and safety, job stress, and work fatigue could be included simultaneously in the model without adversely affecting the estimation results.

The R^2 demonstrated that the model explained 35.8% of the variance in turnover intention. This finding indicates a moderate level of explanatory power. It suggests that the three independent variables make a meaningful contribution to explaining employees' intention to leave. Although additional organisational and individual factors also play important roles.

The predictive capability of the model was further assessed using Stone-Geisser's Q^2 statistic. The positive Q^2 value confirms that it can reasonably estimate turnover intention among construction workers.

Table 6 Structural Model Assessment

Assessment	Indicator	Value	Interpretation
Collinearity (VIF)	Work Fatigue → Turnover Intention	3.482	Acceptable
	Job Stress → Turnover Intention	3.391	Acceptable
	Occupational Health and Safety → Turnover Intention	1.141	No collinearity concern
Coefficient of Determination	R^2 (Turnover Intention)	0.358	Moderate
Predictive Relevance	Q^2 (Turnover Intention)	0.305	Moderate predictive relevance

3.5 Hypothesis Testing

The first hypothesis proposed that work fatigue would significantly influence turnover intention. Although the estimated path coefficient was positive, the relationship was not statistically significant. Therefore, the first hypothesis was not supported. This indicates that work fatigue alone did not directly predict employees' intention to leave the organisation.

The second hypothesis examined the effect of job stress on turnover intention. The results revealed a significant positive relationship. It demonstrates that employees experiencing greater work-related stress were more likely to consider voluntary resignation. Among the predictors included in the model, job stress exhibited the strongest standardised effect.

The third hypothesis investigated whether occupational health and safety affect turnover intention. The analysis identified a significant negative relationship. This indicates that stronger implementation of occupational health and safety practices was associated with lower turnover intention. Consequently, the third hypothesis was supported.

Table 7 Results of Hypothesis Testing

Hypothesis	Structural Path	β	t-Statistic	p-Value	Decision
H1	Work Fatigue → Turnover Intention	0.203	1.458	0.145	Not Supported
H2	Job Stress → Turnover Intention	0.346	2.515	0.012	Supported
H3	Occupational Health and Safety → Turnover Intention	-0.155	2.259	0.024	Supported

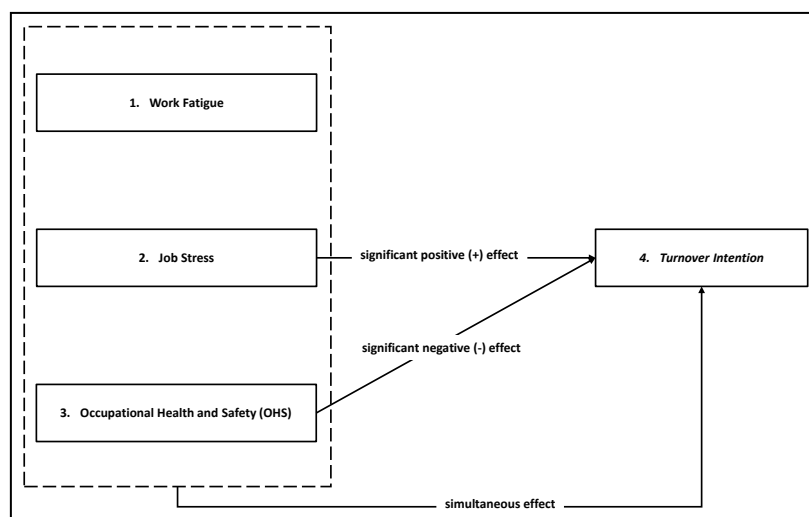


Figure 2 Research Final Model

3.6 Discussion

The descriptive findings indicate that respondents generally perceived their working conditions positively, particularly regarding occupational health and safety. At the same time, relatively low average scores for work fatigue, job stress, and turnover intention suggest that the participating organisations have implemented workplace practices capable of supporting employee well-being. From the perspective of the Job Demands–Resources (JD-R) Model, these findings imply that adequate organisational resources may offset the negative consequences of demanding work conditions. Thereby reducing employees' intention to withdraw from the organisation (Demerouti et al., 2001; Seo et al., 2025).

Although work fatigue has a positive relationship with turnover intention, the relationship was not statistically significant. One possible explanation is that the respondents generally reported relatively low levels of fatigue, limiting its direct influence on withdrawal intentions. In addition, many participants possessed several years of construction experience. This enabled them to adapt to physically demanding work environments and perceive fatigue as an inherent aspect of their occupation rather than a sufficient reason to resign (Demerouti et al., 2001; Hobfoll, 1989; Seo et al., 2025; Wang et al., 2024). This finding is also supported by empirical evidence from the study by Xu et al. (2023), indicating that fatigue is not a significant predictor of turnover intention.

Another explanation concerns the conceptual relationship between work fatigue and job stress. Because both variables originate from excessive job demands, the stronger influence of job stress may have reduced the independent contribution of work fatigue within the structural model. This interpretation is consistent with both the JD-R Model and the Conservation of Resources (COR) Theory, which emphasise that employees' behavioural responses are shaped by the interaction

between workplace demands and the resources available to cope with them (Demerouti et al., 2001; Hobfoll, 1989; Seo et al., 2025).

The significant positive effect of job stress confirms that psychological pressure remains an important determinant of turnover intention. Employees exposed to excessive workloads, persistent pressure, or uncertainty are more likely to consider alternative employment opportunities (Demerouti et al., 2001; Hobfoll, 1989; Seo et al., 2025). This finding reinforces previous research identifying job stress as one of the primary antecedents of employee withdrawal behaviour (Pei et al., 2024).

Conversely, occupational health and safety exhibited a significant negative influence on turnover intention. This highlights the importance of maintaining a safe and supportive work environment. Employees who believe that management consistently prioritises their health and safety are more likely to develop stronger organisational attachment and demonstrate greater commitment to the organisation. Within the JD-R framework, occupational health and safety functions as a valuable organisational resource. Meanwhile, the COR Theory suggests that employees tend to remain in organisations that help preserve essential personal resources, including physical health, safety, and psychological security (Demerouti et al., 2001; Hobfoll, 1989; Seo et al., 2025). The results of this study are also consistent with previous research findings that good OHS practices can reduce turnover intention (Sam-Mensah et al., 2025; Suárez-Albanchez et al., 2021).

Although the proposed model explained 35.8% of the variance in turnover intention, a substantial proportion remained unexplained. This indicates that turnover intention is influenced by additional factors beyond the studied model. Future research should therefore incorporate variables such as job satisfaction, organisational commitment, compensation, career development, work-life balance, and perceived organisational support to develop a more comprehensive understanding of employee retention in the construction industry (Adi & Sary, 2025; Aszahrah & Sary, 2026; Fathan & Sary, 2025; Moslem & Sary, 2021; Prosarani & Putro, 2025; Sasanti et al., 2024).

Conclusion

This study examined the influence of OHS, job stress, and work fatigue on turnover intention among construction workers in Indonesia. The empirical findings demonstrate that occupational health and safety and job stress are significant predictors of turnover intention. Whereas work fatigue does not exert a statistically significant direct influence.

Specifically, stronger OHS implementation contributes to a lower intention among employees to leave their organisations. Conversely, higher levels of job stress significantly increase employees' willingness to seek alternative employment.

These findings suggest that employees' retention decisions are affected more by psychological working conditions and organisational support than by physical fatigue alone.

The results also provide empirical support for the Job Demands–Resources (JD-R) Model and the Conservation of Resources (COR) Theory. Within these theoretical perspectives, occupational health and safety functions as a valuable organisational resource that protects employees' well-being and strengthens their attachment to the organisation. In contrast, job stress represents a demanding work condition that gradually depletes employees' psychological resources, thereby increasing their intention to withdraw from the workplace.

The structural model explains 35.8% of the variance in turnover intention. This indicates that the proposed variables offer a meaningful, although moderate, explanation of employees' intention to leave. Nevertheless, the remaining unexplained variance suggests that turnover intention is shaped by additional organisational and individual factors that were not incorporated into the present model.

Overall, this study contributes to the growing literature on employee retention within Indonesia's construction industry. It demonstrates the importance of integrating effective occupational safety management with initiatives aimed at reducing job-related stress. Organisations that prioritise these two aspects are likely to strengthen workforce retention and organisational sustainability.

To effectively mitigate turnover intention, construction organisations are recommended to translate those empirical findings into concrete, target-driven workplace interventions:

1. Targeted Stress Intervention & Counselling: Given that job stress is a primary driver of turnover intention, management should establish on-site mental health assistance. This comprise such as access to third-party psychological counselling and dedicated stress-helplines. Established alongside a structured project-rotation policy for high-pressure, tight-deadline sites to prevent chronic strain.
2. Actionable OHS Integration: To strengthen the protective effect of occupational safety, companies should shift from passive safety inductions to field-based safety coaching led by safety officers. Furthermore, daily toolbox meetings must be transformed into interactive two-way communication channels. That is where workers can voice hazards and operational friction without fear of penalty.
3. Fatigue Control & Psychological Safety: Although fatigue showed no direct effect on turnover intention, descriptive low scores highlight the need for operational fatigue controls. This comprise such as enforcing weekly overtime caps and establishing air-conditioned rest zones. Creating a just culture – focusing on systemic safety fixes rather than individual blame – further reduces anxiety and reinforces workforce retention.

Suggestion

Future studies should broaden the proposed research model by incorporating additional determinants of turnover intention that have not been examined in the present study. Variables such as job satisfaction, organisational commitment, perceived organisational support, employee engagement, compensation, career development, work-life balance, and job burnout may provide a more comprehensive explanation of employees' decisions to remain with or leave construction organisations.

Researchers are also encouraged to adopt longitudinal research designs to observe how turnover intention develops over time. Compared with cross-sectional studies, longitudinal approaches may provide stronger evidence regarding the causal relationships among occupational health and safety, job stress, work fatigue, and turnover intention.

Further research may also refine the measurement of occupational health and safety by considering its multidimensional nature. Also, examining its implementation across different types of construction projects or organisational settings. In addition, demographic characteristics – including age, work experience, employment status, and job position – may be investigated as moderating variables to determine whether different groups of workers respond differently to workplace conditions.

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