Volume: 11 Issues: 66 Special Issue [July, 2026] pp. 277 - 289
International Journal of Accounting, Finance and Business (IJAFB)
eISSN: 0128-1844
Journal website: www.academicinspired.com/ijafb
DOI: 10.55573/IJAFB.116624

# ENHANCING OCCUPATIONAL SAFETY BEHAVIOURS IN CONSTRUCTION: ASSESSING THE ROLE OF JOB DEMANDS, CONTROL AND SUPPORT

**Mohamed Azree Bin Mohammed Omar[1]**
**Shamshul Anaz Bin Kassim[2*]**
**Kay Dora Abd Ghani[3]**
**Siti Hafizan Hassan[4]**

[1]Engineering Department, Gerbang Nusajaya Sdn Bhd, 81300 Johor Bahru, Johor, Malaysia (E-mail: mazree.omar90@gmail.com)
[2*]Faculty of Business and Management, Universiti Teknologi MARA, Cawangan Perlis, 02600 Arau, Perlis, Malaysia (E-mail: shamsulanaz@uitm.edu.my)
[3]Civil Engineering Studies, Universiti Teknologi MARA, Cawangan Pulau Pinang, 13500 Permatang Pauh, Pulau Pinang, Malaysia (E-mail: kaydora@uitm.edu.my)
[4]Civil Engineering Studies, Universiti Teknologi MARA, Cawangan Pulau Pinang, 13500 Permatang Pauh, Pulau Pinang, Malaysia (E-mail: sitihafizan741@uitm.edu.my)
*Corresponding author: (E-mail: shamsulanaz@uitm.edu.my)

**Article history**
**Received date** : 29-6-2026
**Revised date** : 30-6-2026
**Accepted date** : 28-7-2026
**Published date** : 31-7-2026

**To cite this document:**
Mohammed Omar, M. A., Kassim, S. A., Abd Ghani, K. D., & Hassan, S. H. (2026). Enhancing occupational safety behaviours in construction: Assessing the role of job demands, control and support. *International Journal of Accounting, Finance and Business (IJAFB),* 11 (66), 277 - 289.

**Abstract:** *The main objective of this study is to investigate the role of job demands, job control and job support in predicting frontline worker safety behaviours, including safety compliance and safety participation. The results of this study revealed that job demands and job support significantly predicted voluntary safety participation, whereas job demands did not significantly predict routine safety compliance. Similarly, job control did not significantly predict regulatory compliance and active participation in safety. The study recommends that safety training and supportive management practices should be promoted in the Malaysian construction industry.*

**Keywords:** *Construction Workers, Job Demand, Job Control, Job Support, Safety Behaviour*

Volume: 11 Issues: 66 Special Issue [July, 2026] pp. 277 - 289
International Journal of Accounting, Finance and Business (IJAFB)
eISSN: 0128-1844
Journal website: www.academicinspired.com/ijafb
DOI: 10.55573/IJAFB.116624

## Introduction

Operational environments within the construction sector inherently subject site personnel to multifaceted physical hazards and psychological stressors, driven by labour-intensive tasks alongside heavy machinery and hazardous material handling (Wu et al., 2025; Zulkeflee et al., 2020). Incidents and accidents occur on a regular basis despite the regulations currently in place to prevent them (Lu et al., 2023). Construction workers face a variety of serious hazards, including falling from heights, falling objects, electric shocks, entanglement and exposure to harmful substances (Ismail et al., 2022). Individual safety behaviour is the most critical element in reducing workplace injuries and fatalities in the Malaysian construction industry (Zerguine et al., 2017). Construction site incidents are primarily caused by inadequate communication between supervisors and workers and a lack of awareness among construction workers (Shahar et al., 2023). Additionally, foreign construction workers frequently lack the necessary safety knowledge to comply with existing safety regulations (Zulkeflee et al., 2020).

Therefore, contemporary safety management strategies such as Behaviour Based Safety (BBS) are implemented to modify unsafe behaviours based on psychological principles (Afuye et al., 2024). In addition, safety behaviour refers to an individual's behavioural response to physical working conditions and potential job hazards (Zerguine et al., 2017). It entails all the measures and actions taken by workers to avoid physical harm and maintain a safe working environment.

### Problem Statement

Despite the mandatory compliance with the Occupational Safety and Health Act 1994 (Act 514) enforced by the Department of Occupational Safety and Health (DOSH) and the universal formal safety training in G7 construction companies, site accidents and fatalities are still frequently reported in Malaysia (DOSH recorded 1,056 construction accidents between 2019 and 2023). Safety training and top-down regulations often fail to eliminate unsafe behaviours because they do not address the day-to-day psychosocial demands that construction workers face on site. Universal formal training ensures that workers have a baseline of knowledge. However, individual differences in actual safety behaviour stem from differences in psychosocial working conditions, namely job demands, decision control and supervisory peer support. High job demands often lead to fatigue and cognitive overload that compromise routine compliance, whereas high job support often promotes psychological safety and encourages participation in safety activities. Although, there is a wealth of literature on organisational level safety interventions, there is limited understanding of the role of these psychosocial job demands in predicting individual safety behaviours (compliance versus participation).

## Literature Review

### Safety Behaviour

In general, behaviour refers to the manner in which an individual performs an activity or responds to a particular situation. Specifically, safety behaviour refers to an employee's conduct to ensure personal wellbeing and safety at work (He et al., 2019). It is a manifestation of an individual's conscious effort to prevent injuries and ensure safety in the workplace (Wang et al., 2018). Studying safety behaviour can help reduce workplace stress, psychosocial hazards and psychological injuries (Yaris et al., 2020). In addition, safety behaviours are learned from other workers and site supervisors (Neal & Griffin, 2006; Zhang et al., 2019). As such, safety

Volume: 11 Issues: 66 Special Issue [July, 2026] pp. 277 - 289
International Journal of Accounting, Finance and Business (IJAFB)
eISSN: 0128-1844
Journal website: www.academicinspired.com/ijafb
DOI: 10.55573/IJAFB.116624

behaviour reflects an individual's attitude towards potential job hazards and the overall safety culture in the organisation.

Most researchers have identified two major indicators of safety behaviour, including safety compliance and safety participation (Bronkhorst, 2015; Neal & Griffin, 2006). Unlike lagging safety indicators, such as accident rates and injury frequencies, safety compliance and participation can be used to directly measure an individual's psychological responses and attitudes towards safety (Christian et al., 2009).

**Safety Compliance**

As such, organisations often use safety compliance as a key performance indicator to monitor, measure, and evaluate the extent to which safety regulations are enforced in the workplace (Jung et al., 2020). It is a vital component of an organisation's overall safety management system that determines the level of safety compliance achieved in the workplace (Lu et al., 2023).

Most construction workers are expected to perform their duties in accordance with standard operating procedures and use appropriate personal protective equipment (PPE) (Neal & Griffin, 2006). Recent studies have shown that active participation and supervision are critical in promoting safety compliance among construction workers.

In addition, the lack of adequate safety knowledge and negative attitudes towards safety have been reported as some of the key causes of non-compliance with safety regulations among foreign construction workers (Zulkeflee et al., 2022). As such, safety compliance is an essential indicator that organisations use to monitor and evaluate the level of safety compliance achieved in the workplace.

**Safety Participation**

Unlike safety compliance, safety participation refers to voluntary behaviours that workers perform to go beyond the minimum requirements and promote a safe working environment (Jung et al., 2020). It is a critical component of safety behaviour that determines the overall safety performance of an organisation (Lu et al., 2023). Safety participation encompasses a wide range of voluntary activities, including attending voluntary safety meetings, helping other workers in eliminating potential hazards and promoting the use of new safety practices and procedures (Neal & Griffin, 2002). For instance, construction workers with positive attitudes towards safety are more likely to acquire new skills and knowledge to promote safety in the workplace and encourage their colleagues to adopt safe working practices (Mirza et al., 2019). In addition, job participation is closely linked to psychological safety and job stress. Workers who experience low levels of job stress are more likely to participate in safety promotion activities (Wang et al., 2018). Overall, safety participation reflects an individual's positive attitude towards promoting safety in the workplace.

**Job Demand**

Job demand refers to the physical, psychological, social and organisational requirements of a job that require an individual to invest effort and are associated with physical and psychological costs (Demerouti et al., 2001). Most organisations in the construction industry report experiencing high job demands, including time pressure, high workload, role ambiguity and

Volume: 11 Issues: 66 Special Issue [July, 2026] pp. 277 - 289
International Journal of Accounting, Finance and Business (IJAFB)
eISSN: 0128-1844
Journal website: www.academicinspired.com/ijafb
DOI: 10.55573/IJAFB.116624

high quantitative job demands (Lesener et al., 2018). Several studies have shown that high job demands are significantly associated with employee burnout in most organisations (Alarcon, 2011). In addition, most researchers have shown that job demands have a negative influence on the psychological wellbeing of employees (Jung et al., 2020).

Specifically, job demands have been reported as a major contributor to employee stress, fatigue, and poor health, which often compromise an employee's ability to perform their duties safely (Wu et al., 2025). As such, the analysis of job demands is critical in understanding the relationship between an individual's psychological wellbeing and occupational safety.

Contrastingly, while high job demands are often associated with strain and non-compliance due to cognitive shortcutting or rushing, elevated job demands can simultaneously act as a proactive catalyst for voluntary safety participation. In high-demand environments, workers frequently recognize heightened physical risks and elevated operational hazards. To actively protect themselves and mitigate on-site risks under intense operational pressures, workers often voluntarily engage in risk-mitigation strategies, peer assistance and safety communication, thereby positively driving safety participation even when formal compliance is constrained.

**Job Control**

Job control refers to the extent to which an individual can make decisions and influence their work processes and procedures (Jung et al., 2020). In most cases, job control is often viewed as a critical resource in the job demands-resources theory to reduce the negative impact of job demands on an employee's psychological wellbeing (Weigl et al., 2012). Job control enables an individual to determine the manner in which they perform their tasks and utilise available resources to promote work efficiency and safety. For instance, most organisations in the construction industry encourage their workers to exercise control over their work processes and schedules to reduce the negative impact of high job demands (Gulseren, 2022). As such, job control can be used to promote the psychological wellbeing of construction workers and improve their overall safety performance.

**Job Support**

Job support refers to the extent to which an individual can rely on the support of supervisors, peers and managers to achieve organisational goals (Jung et al., 2020). Social support is a critical resource in most organisations that help employees deal with job demands and promote their psychological wellbeing (Patterer et al., 2023). To illustrate, when construction personnel experience robust supervisory and peer assistance on site, they consistently exhibit reduced occupational stress alongside heightened levels of job satisfaction and compliance with safety guidelines. In addition, job support plays a critical role in promoting positive attitudes towards work and encouraging employees to comply with existing safety regulations. Overall, job support is critical in promoting the psychological wellbeing and safety performance of construction workers.

**Demand Control Support Model**

This study adopted Karasek and Theorell's Demand Control Support model to understand the relationship between work environments and safety behaviour. Previous studies have shown that the Demand-Control-Support model is appropriate in explaining the differences in physical health, psychological wellbeing and safety performance among construction workers (Jung et

Volume: 11 Issues: 66 Special Issue [July, 2026] pp. 277 - 289
International Journal of Accounting, Finance and Business (IJAFB)
eISSN: 0128-1844
Journal website: www.academicinspired.com/ijafb
DOI: 10.55573/IJAFB.116624

al., 2020; Wu et al., 2025). According to the model, job demands directly affect an individual's psychological wellbeing and safety performance, especially when workers have low levels of job control and job support (Wu et al., 2025).

### Comparative Synthesis of Theoretical Literature

Table 1 provides a critical synthesis contrasting previous findings across key dimensions of the Demand-Control-Support framework and safety outcomes.

**Table 1: Synthesis of Key Literature**

| Author(s) & Year | Key Variables | Method | Main Findings & Theoretical Contrast |
|---|---|---|---|
| Lu et al. (2023) | Job Stress, Psychological Resilience, Safety Behaviour | Quantitative, Construction (China) | Found that job stress negatively impacts safety compliance, but psychological resilience mitigates negative emotional outcomes. Focuses on individual stress responses. |
| Jung et al. (2020) | Work Environment, Stress, Safety Behaviour | Quantitative, Construction (South Korea) | High job demands and low job control significantly decrease safety performance; organizational factors outweigh individual controls in high-risk environments. |
| Shahar et al. (2023) | Site Hazards, Communication, Struck-by Accidents | Qualitative/Survey, Construction (Malaysia) | Identifies poor supervisor-worker communication and careless behaviour as primary accident drivers; emphasizes social support structures over formal controls. |
| Zulkeflee et al. (2022) | Foreign Worker Behaviour, Safety Compliance | Quantitative, Construction (Malaysia) | Highlights communication barriers and task prioritization over safety rules; contrastingly demonstrates that targeted support enhances foreign worker compliance. |
| Bronkhorst (2015) | Job Demands, Job Resources, Safety Behaviour | Quantitative, Healthcare | Demonstrates that under high demand, workers trade off routine compliance to meet deadlines, but utilize safety participation as a coping mechanism. |

### Research Framework

The structural model governing this empirical investigation is illustrated in Figure 1, depicting the hypothesized pathways linking job demand, job control and job support to construction workers' safety behaviour outcomes.

Volume: 11 Issues: 66 Special Issue [July, 2026] pp. 277 - 289
International Journal of Accounting, Finance and Business (IJAFB)
eISSN: 0128-1844
Journal website: www.academicinspired.com/ijafb
DOI: 10.55573/IJAFB.116624

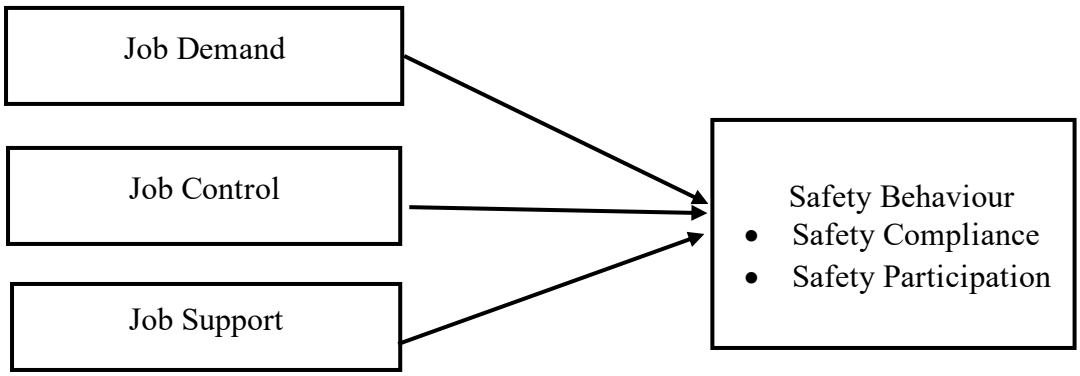


**Figure 1: Research Framework**

**Hypotheses**

$H_1$: There is a relationship between job demand and safety behaviour.
$H_{1a}$: There is a relationship between job demand and safety compliance.
$H_{1b}$: There is relationship between job demand and safety participation.
$H_2$: There is a relationship between job control and safety behaviour.
$H_{2a}$: There is a relationship between job control and safety compliance.
$H_{2b}$: There is a relationship between job control and safety participation.
$H_3$: There is a relationship between job support and safety behaviour.
$H_{3a}$: There is a relationship between job support and safety compliance.
$H_{3b}$: There is a relationship between job support and safety participation.

**Research Methodology**

This study employed a quantitative cross-sectional design to determine the relationship between job demand, job control and job support with safety behaviour among construction workers. This design was ideal for this study because it allowed the researcher to examine the relationships between independent and dependent variables.

**Population and Sampling**

The study focused on construction workers employed in Grade Class A (G7) construction companies in Johor Bahru, Malaysia. These workers are involved in large-scale construction projects that often involve working in complex environments under high hazard (Adane et al., 2013).

Representativeness was achieved by adopting a sampling framework that considered the total number of construction workers in G7 building construction in Johor Bahru (N = 1,387). With a target population of 1,387, Krejcie and Morgan's (1970) sampling table recommends a sample size of 301. As such, a total of 350 questionnaires were administered and 337 questionnaires were returned. Out of the 337 questionnaires, 18 respondents were removed due to their involvement in road and bridge projects, leaving a final sample size of N = 319 representative construction workers who were analysed using an acceptable response rate.
A mixed sampling technique was used due to the heterogeneous nature of the population. Stratified random sampling was used to ensure representativity among the six major categories of construction workers, including general workers, skilled workers, site supervisors, safety officers, engineers and project managers. Within each category, purposive sampling was used to select experienced workers who could provide in depth information on safety behaviour

Volume: 11 Issues: 66 Special Issue [July, 2026] pp. 277 - 289
International Journal of Accounting, Finance and Business (IJAFB)
eISSN: 0128-1844
Journal website: www.academicinspired.com/ijafb
DOI: 10.55573/IJAFB.116624

### Measurement Instruments

The study used a self-administered questionnaire to collect data from the selected sample. The questionnaire had three major sections each of which followed a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree). Demographic items were self-developed. In particular, the questionnaire had 8 items in section A, 15 items in section B and 8 items in section C. The items in section A were used to collect the demographic information of the respondents. The items in section B were used to measure the independent variables, including job demand, job control and job support (adopted from Karasek et al., 1998). Finally, the items in section C were used to measure the dependent variables, including safety compliance and safety participation (adopted from Neal et al., 2000; Neal & Griffin, 2002). The data collection process took six months to ensure that the data collected were reliable and valid.

### Statistical analysis

Several statistical procedures were used to analyse the data collected from the study. First, the mean and standard deviation of the items were determined to establish the initial baseline of the study variables. The relationship between the independent variables and dependent variables was then established using bivariate correlation analysis. Thereafter, multiple linear regression analysis was performed to determine the extent to which the independent variables predicted the dependent variables. All statistical analyses were performed using IBM SPSS Statistics (Version 27).

## Results

### Demographic Profile of Respondents

To establish the background information of the respondents, questions on gender, formal safety training and site job roles were analysed (N = 319). In terms of gender distribution, the sample was heavily skewed towards male respondents, representing 313 respondents (98.1%) compared to 1.9% of female respondents (N = 6). This skewness is expected, given the prevalence of male workers in the construction industry, particularly in site-based occupations. In addition, 100% of the respondents had received formal safety training, indicating that all respondents had baseline knowledge of safety procedures and regulations.

**Table 2: Sample Distribution by Job Role**

| Job Category / Role | Frequency (N) | Percentage (%) |
|---|---|---|
| General Workers | 163 | 51.1% |
| Skilled Workers | 57 | 17.9% |
| Site Supervisors | 31 | 9.7% |
| Safety Officers | 10 | 3.1% |
| Engineers | 45 | 14.1% |
| Project Managers | 13 | 4.1% |
| Total | 319 | 100.0% |

As presented in Table 2, the sample had a representative distribution of workers across the major job roles in the construction industry. As shown in Table 2 above, the sample was distributed across six major categories of construction workers.

Volume: 11 Issues: 66 Special Issue [July, 2026] pp. 277 - 289
International Journal of Accounting, Finance and Business (IJAFB)
eISSN: 0128-1844
Journal website: www.academicinspired.com/ijafb
DOI: 10.55573/IJAFB.116624

In particular, the sample had the largest percentage of frontline site workers, including general workers (51.1%) (N = 163) and skilled workers (17.9%) (N= 57). Overall, non-supervisory workers comprised 69.0% of the sample. This proportion is critical in this study because these workers are often exposed to the highest number of physical hazards, time pressure and strenuous activities. The remaining 31.0% of the sample were distributed among technical, supervisory and managerial roles.

In particular, technical roles comprised engineers at 14.1% (N = 45). In addition, site supervisors represented 9.7% of the sample (N = 31). Finally, project managers and safety officers comprised 4.1% (N = 13) and 3.1% (N = 10) of the sample, respectively. By including these roles, this study ensures that the perspectives of all levels of management and non-supervisory workers are considered in the analysis.

**Instrument Validity and Reliability Assessment**

Construct validity and measurement integrity were rigorously evaluated. Content and face validity were established through expert review panel evaluations (university safety lecturers and the Universiti Teknologi MARA Research Ethics Committee). Construct validity was assessed through Exploratory Factor Analysis (EFA) using Principal Component Analysis with Varimax rotation. All items loaded significantly on their respective factors (>0.60) with no severe cross-loadings, demonstrating construct validity.

**Scale Reliability Analysis**

Internal consistency reliability was evaluated using cronbach's alpha (**α**) coefficients for each construct. As shown in Table 3, all variables exceeded the standard acceptable threshold of 0.70 (Cronbach, 1951), ranging from 0.782 to 0.889. These results confirm robust internal consistency and high scale reliability across all measurement instruments.

**Table 3: Reliability Analysis**

| Variable Construct | Number of Items | Cronbach's Alpha (α) | Internal Consistency Level |
|---|---|---|---|
| Job Demand | 5 | 0.782 | Good |
| Job Control | 5 | 0.814 | Good |
| Job Support | 5 | 0.865 | High |
| Safety Compliance | 4 | 0.889 | High |
| Safety Participation | 4 | 0.873 | High |

Among the independent variables, job support exhibited the highest internal reliability (α = 0.865), followed by job control (α = 0.814) and job demand (α = 0.782). The high alpha values for these psychosocial predictors indicate that the adapted items consistently captured the intended operational dimensions of the Demand Control Support model within the context of Malaysian G7 construction site personnel.

Regarding the dependent variables, both outcome measures displayed exemplary internal reliability. Safety compliance yielded an alpha coefficient of (α = 0.889), while safety participation recorded an alpha of (α = 0.873). These strong reliability estimates confirm that the instruments reliably distinguished between mandatory adherence to baseline safety rules and voluntary, proactive engagement in site safety initiatives. Overall, the statistical findings

Volume: 11 Issues: 66 Special Issue [July, 2026] pp. 277 - 289
International Journal of Accounting, Finance and Business (IJAFB)
eISSN: 0128-1844
Journal website: www.academicinspired.com/ijafb
DOI: 10.55573/IJAFB.116624

confirm that all scale items possess sufficient measurement stability and reliability to proceed with parametric correlation and regression analyses.

### Correlation Analysis

**Table 1: Pearson Correlation**

| Variables | JD | JC | JS | SC | SP |
|---|---|---|---|---|---|
| Job demand (JD) | 1 | | | | |
| Job control (JC) | 0.316** | 1 | | | |
| Job support (JS) | 0.243** | 0.646** | 1 | | |
| Safety compliance (SC) | 0.129** | 0.409** | 0.526** | 1 | |
| Safety participation (SP) | 0.257** | 0.380** | 0.558 | 0.817** | 1 |

Note: N= 319, *$p<0.05$, **$p<0.01$

The study used correlation analysis to determine the correlation between the independent and dependent variables. Table 1 below presents the results of the analysis. The analysis revealed significant positive associations across most independent and dependent variable pairs. However, job support did not achieve statistical significance with safety participation in the preliminary pairwise correlation matrix.

### Regression Results

**Table 2: Multiple Regression Analysis**

| Variable | Safety Participation | | Safety Compliance | | Safety Behavior | |
|---|---|---|---|---|---|---|
| | β | P-value | β | P-value | β | P-value |
| Job Demand (JD) | 0.100* | -0.007 | -0.055 | 0.087 | 0.021 | 0.504 |
| Job Control (JC) | -0.082 | 0.084 | 0.030 | 0.472 | -0.026 | 0.525 |
| Job Support ()JS) | 0.257** | <0.001 | 0.122** | 0.005 | 0.197** | <0.001 |
| R Square | | | 0.834 | | | |
| Adjusted R Square | | | 0.695 | | | |

Note:N=319, *$p<0.05$, **$p<0.01$

The study used multiple regression analysis to determine the extent to which the independent variables predicted the dependent variables. Table 2 below presents the results of the analysis. The overall model accounted for substantial variance (R square = 0.834, Adjusted R square = 0.695), demonstrating that 83.4% of the total variance in overall safety behaviour is explained by the independent work environment predictors.

Job demand significantly predicted safety participation ($\beta = 0.100$, $p < 0.05$) but showed no significant relationship with safety compliance ($\beta = -0.055$, $p > 0.05$). Job control failed to demonstrate a significant direct impact on either safety participation ($\beta = 0.084$, $p > 0.05$) or safety compliance ($\beta = 0.030$, $p > 0.05$). In contrast, job support emerged as a dominant structural predictor for both safety participation ($\beta = 0.257$, $p < 0.001$) and safety compliance

Volume: 11 Issues: 66 Special Issue [July, 2026] pp. 277 - 289
International Journal of Accounting, Finance and Business (IJAFB)
eISSN: 0128-1844
Journal website: www.academicinspired.com/ijafb
DOI: 10.55573/IJAFB.116624

$\beta = 0.122$, $p < 0.01$). Consequently, hypotheses $H_{1a}$, $H_2$, $H_{3b}$, and $H_1$, $H_3$ were supported, whereas hypotheses $H_{1a}$ and $H_{3a}$ $H_2$ were not supported.

**Discussion**

This study investigated the influence of job demands, job control and job support on safety compliance and voluntary participation among construction workers in Malaysia. The obtained results were partially consistent with the proposed framework, offering an explanation as to why safety violations and divergent behaviour occur despite workers' access to standard safety training and mandatory regulatory oversight.

While 100% of the participants in this study underwent formal safety training and operated under the supervision of statutory safety laws (Act 514, DOSH), the presence of baseline training and top-down regulatory control cannot be the sole explanation for observed safety violations. Formal safety training only provides a theoretical understanding of potential worksite hazards and establishes a baseline level of hazard awareness among workers. The observed results highlight the influence of day-to-day job demands and the necessity of psychosocial support in safety contexts.

Job support was found to be the strongest predictor of both safety compliance ($\beta = 0.122$, $p = 0.005$) and voluntary participation ($\beta = 0.257$, $p < 0.001$), which is consistent with prior research on construction safety (Zulkeflee et al., 2022). While formal safety training may provide the essential theoretical background, workers need job support to effectively operate under standard safety procedures and communicate potential hazards.

Another noteworthy finding regards the differential influence of job demands on safety compliance and voluntary participation. While job demands had no direct effect on safety compliance ($\beta = -0.055$, $p > 0.05$), they positively predicted voluntary participation ($\beta = 0.100$, $p < 0.05$). Worksite hazards require workers to take short term adaptive measures to avoid them, which often involves informal communication and voluntary participation in safety management. Under high job demands, workers are more likely to utilise informal communication channels to relay information on potential hazards to coworkers (Bronkhorst, 2015). Thus, workers with similar levels of formal safety training may exhibit different levels of voluntary participation and safety compliance depending on the demands of their worksite. By contrast, job control had no significant effect, direct or indirect, on either safety compliance or voluntary participation. In the context of G7 construction projects, job control is largely dictated by statutory safety laws and direct supervision by DOSH, which limits workers' ability to independently modify existing procedures.

**Theoretical and Practical Implications**

This study provides theoretical and practical insights into the role of job demands, job control, and job support in worksite safety. From a theoretical perspective, this study adds to the Job Demand Control Support literature by highlighting the relative influence of various psychosocial factors in construction safety contexts. From a practical perspective, construction site supervisors and project managers can utilise the findings of this study to improve worksite safety. This study's results highlight the importance of project managers establishing strong support networks and addressing workers' cognitive job demands to improve workers' safety compliance and voluntary participation.

Volume: 11 Issues: 66 Special Issue [July, 2026] pp. 277 - 289
International Journal of Accounting, Finance and Business (IJAFB)
eISSN: 0128-1844
Journal website: www.academicinspired.com/ijafb
DOI: 10.55573/IJAFB.116624

## Limitations and Future Research

This study has several limitations that future research on worksite safety should address. Firstly, future studies should utilise a mixed methods approach to operationalise the concepts of hindrance and challenge demands. Secondly, future studies should use qualitative methods to explore the mediating role of informal communication in safety contexts.

## Conclusion

This study explored the predictive relationship between job demands, job control, job support, safety compliance and safety participation among construction workers in Malaysia. The results of this study provide an explanation as to why divergent worker behaviour often occurs despite standardised formal safety training and regulatory safety oversight.

The results of this study highlight the importance of psychosocial support and communication in construction safety. With regard to safety participation, job demands were found to be a significant predictor, whereas job support was found to be the strongest predictor of safety compliance. Furthermore, this study found that high job demands often lead to increased voluntary participation as an adaptive response to additional worksite stressors. Overall, this study's results suggest that improving construction site safety requires worksite managers to go beyond standard compliance training and address the informal aspects of worksite safety management.

## Acknowledgements

The authors express sincere gratitude to the Universiti Teknologi MARA for providing a supportive research environment. Appreciation is also extended to colleagues, students and industry partners for their ongoing support and valuable contributions to this body of work, as well as to the anonymous reviewers for their constructive feedback in refining this manuscript.

Volume: 11 Issues: 66 Special Issue [July, 2026] pp. 277 - 289
International Journal of Accounting, Finance and Business (IJAFB)
eISSN: 0128-1844
Journal website: www.academicinspired.com/ijafb
DOI: 10.55573/IJAFB.116624

**References**

Afuye, O. O., Oladimeji, O., Aina, O. O., Tam, V. W. Y., & Haddad, A. N. (2024). Factors influencing safety behaviours of construction tradesmen. *International Journal of Construction Management*, 24(8), 1–10. https://doi.org/10.1080/15623599.2024.2325750

Ahmad, S., Hussain, S., Aamir, M., Yasmeen, U., Shabbir, J., & Ahmad, Z. (2021). Dual Use of Auxiliary Information for Estimating the Finite Population Mean under the Stratified Random Sampling Scheme. *Journal of Mathematics*, 2021, 1–12. https://doi.org/10.1155/2021/3860122

Alarcon, G. M. (2011). A meta-analysis of burnout with job demands, resources, and attitudes. *Journal of Vocational Behavior*, 79(2), 549–562. https://doi.org/10.1016/j.jvb.2011.03.007

Bronkhorst, B. (2015). Behaving safely under pressure: The effects of job demands, job resources, and safety climate on employee safety behaviour in health care. *Safety Science*, 79, 63–71. https://doi.org/10.1016/j.ssci.2015.05.009

Christian, M. S., Bradley, J. C., Wallace, J. C., & Burke, M. J. (2009). Workplace safety: A meta-analysis of the roles of person and situation factors. *Journal of Applied Psychology*, 94(5), 1103–1127. https://doi.org/10.1037/a0016172

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16(3), 297–334.

Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology*, 86(3), 499–512. https://doi.org/10.1037/0021-9010.86.3.499

Gulseren, D. (2022). Physical hazards, musculoskeletal pain, and job control: Multilevel results from the European Social Survey. *Safety Science*, 156, 105901. https://doi.org/10.1016/j.ssci.2022.105901

He, C., Jia, G., McCabe, B., Chen, Y., & Sun, J. (2019). Impact of psychological capital on construction worker safety behavior: Communication competence as a mediator. *Journal of Safety Research*, 71, 231–241. https://doi.org/10.1016/j.jsr.2019.09.007

Ismail, F., Zulkeflee, A. A., & Faisol, N. (2022). Assessment of physical and mental health factors on safety performance of site operations. *Journal of Construction in Developing Countries*, 27(2), 45–62.

Jung, M., Lim, S., & Chi, S. (2020). Impact of work environment and occupational stress on safety behavior of individual construction workers. *International Journal of Environmental Research and Public Health*, 17(22), 8304. https://doi.org/10.3390/ijerph17228304

Karasek, R., Brisson, C., Kawakami, N., Houtman, I., Bongers, P., & Amick, B. (1998). The Job Content Questionnaire (JCQ): An instrument for internationally comparative assessments of psychosocial job characteristics. *Journal of Occupational Health Psychology*, 3(4), 322–355. https://doi.org/10.1037/1076-8998.3.4.322

Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(3), 607–610.

Lesener, T., Gusy, B., & Wolter, C. (2018). The job demands-resources model: A meta-analytic review of longitudinal studies. *Work & Stress*, 33(1), 76–103. https://doi.org/10.1080/02678373.2018.1529065

Lu, C., Yu, D., Luo, Q., & Xu, C. (2023). A study of the effects of job stress on the psychosocial safety behavior of construction workers: The mediating role of psychological resilience. *Buildings*, 13(8), 1930. https://doi.org/10.3390/buildings13081930

Mirza, M. Z., Isha, A. S. N., Memon, M. A., Azeem, S., & Zahid, M. (2019). Psychosocial safety climate, safety compliance and safety participation: The mediating role of

Volume: 11 Issues: 66 Special Issue [July, 2026] pp. 277 - 289
International Journal of Accounting, Finance and Business (IJAFB)
eISSN: 0128-1844
Journal website: www.academicinspired.com/ijafb
DOI: 10.55573/IJAFB.116624

psychological distress. *Journal of Management & Organization*, 28(2), 363–378. https://doi.org/10.1017/jmo.2019.35

Neal, A., & Griffin, M. A. (2006). A study of the lagged relationships among safety climate, safety motivation, safety behavior, and accidents at the individual and group levels. *Journal of Applied Psychology*, 91(4), 946–953. https://doi.org/10.1037/0021-9010.91.4.946

Neal, A., Griffin, M., & Hart, P. (2000). The impact of organizational climate on safety climate and individual behavior. *Safety Science*, 34(1-3), 99–109. https://doi.org/10.1016/s0925-7535(00)00008-4

Omidi, L., Karimi, H., Pilbeam, C., Mousavi, S., & Moradi, G. (2023). Exploring the relationships among safety leadership, safety climate, psychological contract of safety, risk perception, safety compliance, and safety outcomes. *Frontiers in Public Health*, 11, 1235214. https://doi.org/10.3389/fpubh.2023.1235214

Patterer, A. S., Yanagida, T., Kühnel, J., & Korunka, C. (2023). Daily receiving and providing of social support at work: Identifying support exchange patterns in hierarchical data. *European Journal of Work and Organizational Psychology*, 32(4), 489–505. https://doi.org/10.1080/1359432x.2023.2177537

Shahar, N. M., Abas, N. H., Basirun, N. F., & Memon, M. H. (2023). Perspectives of contributing factors and prevention measures of struck-by accidents from experienced safety personnel. *International Journal of Sustainable Construction Engineering & Technology*, 14(5), 320–332. https://doi.org/10.30880/ijscet.2023.14.05.039

Tee, K. (2023). Foreign labor statistics in Malaysian construction sector. *Malaysian Journal of Economic Studies*, 60(1), 45–58.

Wang, M., Sun, J., Du, H., & Wang, C. (2018). Relations between safety climate, awareness, and behavior in the Chinese construction industry: A hierarchical linear investigation. *Advances in Civil Engineering*, 2018, 1–8. https://doi.org/10.1155/2018/6580375

Weigl, M., Müller, A., Hornung, S., Zacher, H., & Angerer, P. (2012). The moderating effects of job control and selection, optimization, and compensation strategies on the age-work ability relationship. *Journal of Organizational Behavior*, 34(5), 607–628. https://doi.org/10.1002/job.1810

Wu, P., Manivannan, S., & Zhao, Y. (2025). Work stress among construction professionals during operational transitions: A Job Demand-Control-Support perspective. *Smart and Sustainable Built Environment*, 14(1), 88–104. https://doi.org/10.1108/SASBE-10-2024-0411

Yaris, C., Ditchburn, G., Curtis, G. J., & Brook, L. (2020). Combining physical and psychosocial safety: A comprehensive workplace safety model. *Safety Science*, *132*, 104949. https://doi.org/10.1016/j.ssci.2020.104949

Zerguine, H., Tamrin, S. B. B. M., & Jalaludin, J. (2017). Evaluation of safety behavior and work-related injuries among foreign construction workers in Malaysia. *Ningen Kougaku*, 53(Supplement2), S580–S583. https://doi.org/10.5100/jje.53.s580

Zulkeflee, A. A., Faisol, N., Ismail, F., & Ismail, N. A. A. (2020). Safety awareness and compliance among foreign workers on construction sites. *Journal of Building Performance*, 11(1), 33–42.

Zulkeflee, A. A., Faisol, N., Ismail, F., & Ismail, N. A. A. (2022). Safety compliances enhancement: Foreign labours behaviour in the Malaysian construction site. *Journal of Construction in Developing Countries*, 27(1), 153–171. https://doi.org/10.21315/jcdc2022.27.1.9