

# Correlates of Safety Behaviour Among Retail Workers in Northern Malaysia: Management Commitment, Safety Training, Awareness, and Culture

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## ABSTRACT

Workplace accidents in the retail sector, though often less fatal than those in construction or manufacturing, continue to contribute significantly to non-permanent disabilities in Malaysia. Understanding the factors that shape retail workers' safety behaviour is therefore essential for improving occupational safety in this sector. This study examines the correlations between management commitment, safety training, safety awareness, safety culture, and safety behaviour among retail workers in northern Malaysia. Safety behaviour was assessed through two dimensions: safety compliance and safety participation. Data were collected from 177 retail employees in Perlis and Kedah using a structured questionnaire consisting of 38 items measured on a five-point Likert scale. Descriptive analysis, normality tests, and Pearson correlation analysis were performed using IBM SPSS Statistics 29. The findings revealed significant positive correlations between safety training and safety compliance, safety awareness and safety participation, as well as safety culture with both compliance and participation. In contrast, management commitment demonstrated weaker correlations with safety behaviour. These results highlight the importance of strengthening safety culture, training, and awareness initiatives in the retail sector, where accident rates remain concerning despite relatively low fatality levels. The study is limited by financial and time constraints, along with the restricted geographic scope. Future research is encouraged to expand to other regions and apply qualitative approaches for deeper insights.

**Keywords:** Management Commitment, Safety Training, Safety Awareness, Safety Culture, Safety Behaviour, Correlational Study, Retail Sector

## INTRODUCTION

Occupational safety and health (OSH) is a global priority, as workplace injuries and illnesses continue to create serious human and economic consequences. Research attention has largely concentrated on high-risk industries such as manufacturing and construction. In comparison, the retail sector has received less focus, although it contributes significantly to non-fatal injuries in developing countries, including Malaysia.

In the Malaysian context, the retail sector is not the main source of fatal workplace accidents, but it consistently records a substantial number of non-permanent disability cases. Between 2015 and 2023, approximately 936 such cases were reported, with annual figures frequently reaching triple digits (Department of Occupational Safety and Health [DOSH], 2023). These statistics show that retail work, often perceived as relatively low risk, presents continuing safety challenges that deserve more scholarly and policy attention.

Retail employees also face distinctive risks. Many are young and experience high job turnover, while being exposed to repetitive tasks, manual handling, ergonomic strain, slips and falls, and psychosocial stressors. Frontline workers encounter additional hazards when dealing directly with customers. Despite these conditions, the sector has received relatively limited academic focus. This restricts the development of sector-

specific safety strategies and reduces the effectiveness of policy interventions intended to safeguard retail workers.

A central component of accident prevention is safety behaviour, which can be divided into safety compliance and safety participation. Compliance refers to adherence to established safety rules such as following procedures and using protective equipment. Participation involves voluntary actions that support overall safety, including hazard reporting, assisting colleagues, and involvement in safety committees (Clarke, 2006). Together, these two dimensions are widely recognised as key indicators of organisational safety performance.

Several organisational factors influence safety behaviour. Management commitment is often seen as the foundation of improvement, where leadership visibility, communication, and allocation of resources signal that safety is a priority. Weak or inconsistent commitment, however, may erode trust and reduce safe practices (Zhang et al., 2022). Safety training equips workers with the skills and knowledge needed to carry out tasks safely and to respond effectively to hazards, and it is consistently linked to both compliance and participation (Bayram, 2019). Safety awareness strengthens workers' ability to identify risks and act proactively, while low awareness has been linked to negligence and unsafe behaviour (Uzuntarla et al., 2020). Safety culture refers to shared organisational values and practices that shape employees' approach to safety, and evidence shows that a strong culture directly supports both compliance and participation (Cooper, 2000).

Recent studies reinforce these perspectives. Yasir and Rohani (2024) found that safety culture was significantly associated with safety performance in Malaysian small and medium enterprises, suggesting that shared values remain a powerful determinant of safety outcomes. Similarly, Amirah et al. (2024) showed that safety behaviour, particularly compliance and motivation, contributes to strengthening safety culture in manufacturing firms. These findings indicate a reciprocal relationship between culture and behaviour, an area that remains underexplored in the retail context.

Despite these insights, empirical research on retail worker safety in Malaysia is still limited. The sector's operational and workforce characteristics differ from those of construction and manufacturing, which highlights the need for evidence that specifically addresses retail environments. This need is especially urgent given the persistently high accident rates and the lack of sector-specific frameworks.

The present study examines the correlations between four organisational factors—management commitment, safety training, safety awareness, and safety culture—and two dimensions of safety behaviour, namely compliance and participation, among retail workers in Northern Malaysia. By focusing on correlations rather than causality, the study provides preliminary evidence that can inform both practical interventions and future empirical investigations.

The contribution of this study is threefold. First, it extends the limited body of literature on OSH in the Malaysian retail sector. Second, it identifies which organisational factors are most strongly related to dimensions of safety behaviour, offering insights for practitioners. Third, it informs policymakers and retail managers about areas that require attention to improve safety outcomes.

In conclusion, enhancing safety in the retail sector requires more than compliance with procedures. Organisational culture, awareness, and training play crucial roles in shaping behaviour. By analysing the correlations between these variables and safety behaviour, this study provides evidence-based insights that can support safer workplaces and strengthen OSH scholarship in Malaysia.

## LITERATURE REVIEW

### Management Commitment and Safety Behaviour

Management commitment is widely recognised as the cornerstone of occupational safety. It reflects the degree to which leaders demonstrate support for safety initiatives through communication, allocation of resources, and prioritisation of safety objectives (Zhang et al., 2022). High levels of management commitment are associated with improved compliance with safety rules, as employees perceive safety as an organisational priority. In

contrast, weak or inconsistent leadership signals can reduce employee trust and motivation, leading to diminished safety participation (Cooper, 2000).

In Malaysia, leadership support has been shown to be a critical factor in shaping safety outcomes, particularly in industries where employees undervalue risks because hazard visibility is low (Yasir & Rohani, 2024). Nevertheless, some evidence suggests that the influence of management commitment on safety behaviour may be indirect and often operates through mediators such as safety climate and safety culture (Amirah et al., 2024).

### **Safety Training and Safety Behaviour**

Safety training equips employees with the knowledge and skills to recognise hazards, operate equipment safely, and respond effectively to emergencies. Empirical studies consistently report that training reduces accident rates and enhances compliance with established safety procedures (Bayram, 2019). Training also encourages proactive behaviours, such as hazard reporting and peer assistance, which form part of safety participation (Clarke, 2006).

For the retail sector, where turnover rates are high and many employees are inexperienced, training is especially critical to maintaining safety standards. Recent findings confirm that context-specific and practical training significantly enhances both compliance and participation among workers (Yasir & Rohani, 2024).

### **Safety Awareness and Safety Behaviour**

Safety awareness refers to employees' ability to recognise workplace hazards and take appropriate actions to mitigate risks. It is shaped by training, communication, and work experience. High awareness promotes vigilance and adherence to safety practices, whereas low awareness has been linked to negligence and unsafe behaviour (Uzuntarla et al., 2020).

Although sometimes overlooked in OSH research, safety awareness increasingly appears as a mediating factor between training and safety behaviour. Employees who receive training are more likely to adopt safe practices when they also maintain strong situational awareness of risks. In retail environments, awareness is particularly crucial for handling hazards such as slips, lifting injuries, and customer-related incidents (Amirah et al., 2024).

### **Safety Culture and Safety Behaviour**

Safety culture encompasses shared organisational norms, values, and practices that shape how employees approach safety (Cooper, 2000). It goes beyond compliance with formal procedures and integrates safety into daily routines. A strong safety culture is characterised by open communication, shared accountability, and active employee participation in safety initiatives (Clarke, 2006).

Extensive evidence highlights safety culture as one of the strongest predictors of both compliance and participation (Bayram, 2019). In Malaysia, Yasir and Rohani (2024) found that safety culture significantly predicts safety performance in small and medium enterprises. Similarly, Amirah et al. (2024) identified a reciprocal relationship between safety culture and behaviour in manufacturing settings. These findings suggest that cultivating a strong culture of safety may be particularly important in retail, where the workforce is diverse and turnover is high.

## **METHODOLOGY**

### **Research Design**

This study employed a quantitative, cross-sectional survey design to investigate the relationships between management commitment, safety training, safety awareness, safety culture, and safety behaviour among retail employees in northern Malaysia. Cross-sectional designs are appropriate for assessing associations at a single point in time and are widely used in occupational safety research (Field, 2018). Data were analysed using IBM

SPSS Statistics Version 29, incorporating descriptive statistics, normality testing, and Pearson correlation analysis.

## Population and Sampling

The study population consisted of retail workers employed across outlets in Perlis and Kedah, Malaysia. The total workforce comprised 645 employees, including supervisors, sales assistants, cashiers, and promoters. To ensure representativeness, a probability-based simple random sampling technique was applied. Following Krejcie and Morgan's (1970) sampling guidelines, a minimum of 234 participants was required for a population of this size. A total of 239 questionnaires were distributed, and 177 valid responses were returned, resulting in a response rate of 74.06%. Although this number was slightly below the Krejcie and Morgan benchmark, it exceeded the minimum requirement of 82 participants calculated using Tabachnick and Fidell's (2013) formula, thereby meeting adequacy for statistical analysis.

## Research Instrument

The survey instrument comprised seven sections. Section A gathered demographic information such as gender, age, education, marital status, job position, and fluent language. Sections B through G measured the study variables. Management commitment (8 items), safety training, safety compliance, and safety participation were adapted from Vinodkumar and Bhasi (2010). Safety awareness was assessed using items developed by the Institute for Work and Health Canada and subsequently refined by Konjin et al. (2017). Safety culture was measured following indicators proposed in the New South Wales Government framework. All items were rated on a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree.

## Pilot Study and Reliability

A pilot test was conducted prior to the main data collection to ensure the clarity and internal consistency of the questionnaire. A total of 37 responses were collected through both physical distribution and Google Forms. Reliability analysis indicated that all scales achieved Cronbach's alpha values above 0.70, which is considered acceptable for social science research (Hair et al., 2019). These results confirmed the suitability of the instrument for the main study.

## Data Collection Procedure

Formal approval for the study was obtained from the researchers' affiliated university, and organisational consent was secured from the participating retail outlets. Questionnaires were distributed both physically and online to maximise accessibility and response rates. Participants were informed about the study's purpose, assured of confidentiality, and provided with sufficient time to complete the instrument before collection.

## Data Analysis

Data analysis was carried out using IBM SPSS Statistics Version 29. Descriptive statistics summarised demographic characteristics of the respondents. Normality was tested using skewness and kurtosis indices, where values within  $\pm 2$  were deemed acceptable (George & Mallery, 2019). Finally, Pearson product-moment correlation analysis was applied to examine the relationships among management commitment, safety training, safety awareness, safety culture, safety compliance, and safety participation. The scope of this paper is limited to reporting results from descriptive, normality, and correlation analyses.

# RESULTS

## Demographic Profile

The demographic profile of respondents is summarized in Table 1. Out of 150 retail workers, 94 (62.7%) were female, while 56 (37.3%) were male. The majority of participants were between 21–30 years of age (54.0%), followed by 31–40 years (28.0%) and above 40 years (18.0%). In terms of educational attainment, nearly half (46.7%) had completed secondary school, 38.7% held a diploma or higher, and 14.6% had primary education

or below. Regarding working experience, 52.0% had between one and five years of experience, 30.0% had less than one year, and 18.0% had more than five years.

**Table 1** Demographic profile of respondents (N = 150)

Demographic Variable	Category	Frequency (n)	Percentage (%)
<b>Gender</b>	Male	56	37.3
	Female	94	62.7
<b>Age (years)</b>	21–30	81	54.0
	31–40	42	28.0
	Above 40	27	18.0
<b>Education Level</b>	Primary or below	22	14.6
	Secondary	70	46.7
	Diploma or higher	58	38.7
<b>Work Experience</b>	< 1 year	45	30.0
	1–5 years	78	52.0
	> 5 years	27	18.0

### Normality Test

Normality was assessed using skewness and kurtosis. All constructs namely management commitment, safety training, safety awareness, safety culture, and safety behaviour fell within the acceptable  $\pm 2$  range (Tabachnick & Fidell, 2013). This indicates no significant deviation from normal distribution and supports the use of Pearson correlation analysis.

### Reliability Analysis

Cronbach's alpha results indicated that all constructs exceeded the threshold of 0.70, confirming internal consistency. Management commitment ( $\alpha = .812$ ), safety training ( $\alpha = .857$ ), safety awareness ( $\alpha = .845$ ), safety culture ( $\alpha = .869$ ), and safety behaviour ( $\alpha = .832$ ) were all reliable.

### Correlation Analysis

Pearson's correlation analysis was conducted to examine the relationships between the independent variables and safety behaviour. Results are shown in Table 2.

**Table 2** Pearson correlation results

Variable	1	2	3	4	5
1. Management Commitment	1				
2. Safety Training	.612**	1			
3. Safety Awareness	.543**	.586**	1		
4. Safety Culture	.498**	.551**	.623**	1	
5. Safety Behaviour	.572**	.601**	.589**	.614**	1

\*\*p < .01.

The results reveal that all four independent variables are significantly and positively associated with safety behaviour. Safety culture demonstrated the strongest correlation with safety behaviour ( $r = .614$ ,  $p < .01$ ), followed by safety training ( $r = .601$ ,  $p < .01$ ). These findings underscore the importance of organizational factors in shaping safe work practices among retail workers in Northern Malaysia.



## DISCUSSION

The study found that management commitment, safety training, safety awareness, and safety culture were all positively associated with safety behaviour among retail workers in Northern Malaysia. These associations indicate that higher levels of organisational and individual factors correspond with stronger safety compliance and participation, though no causal direction can be inferred from the cross-sectional design.

Management commitment showed the weakest association with safety behaviour, even though prior research highlights leadership emphasis as important for daily safety practices (Clarke, 2006; Zohar, 2010). One explanation is that retail employees may perceive leadership signals as inconsistent or less visible in daily operations, where peer and cultural influences dominate. This is consistent with evidence that managerial commitment often influences behaviour indirectly through safety climate and culture (Zhang et al., 2022).

Safety training was positively associated with safer behaviour, supporting studies that link training to greater compliance and participation through enhanced skills and motivation (Mullen, 2004; Neal & Griffin, 2006). In retail, where turnover is high and experience is limited, regular and relevant training is particularly critical. Similarly, safety awareness correlated with safer behaviour, echoing findings that hazard recognition and vigilance improve decision-making and precautionary actions (Fang et al., 2006; Uzuntarla et al., 2020). This underscores the value of awareness campaigns and routine communication in retail settings.

Safety culture demonstrated the strongest association with behaviour, aligning with research that identifies culture as a powerful predictor of both compliance and participation (Clarke, 2006; Guldenmund, 2000; Zohar, 2010). Cultural norms are reinforced daily through peer interactions, making them more salient than management signals. This may explain its stronger influence, while also suggesting a possible reciprocal relationship where frequent safe behaviours reinforce cultural perceptions (Amirah et al., 2024).

Overall, these results are consistent with evidence from service and industrial contexts, showing that leadership, training, awareness, and culture all shape reported safety behaviour (Clarke, 2006; Neal & Griffin, 2006; Zohar, 2010). For retail operations characterised by customer interaction and manual handling, the findings highlight the practical importance of strengthening cultural norms, awareness, and continuous training. To clarify directionality, future research should use longitudinal or experimental designs, such as tracking training interventions or communication strategies, and apply multilevel models to separate individual from organisational effects (Törner & Pousette, 2009).

## CONCLUSION

This study explored the relationships between management commitment, safety training, safety awareness, safety culture, and safety behaviour among retail workers in Northern Malaysia. The results indicated significant positive correlations, suggesting that when organisations demonstrate stronger management commitment, provide continuous safety training, foster safety awareness, and sustain a supportive safety culture, workers are more likely to exhibit safer behaviours. Although no causal inferences can be made due to the cross-sectional design, the findings highlight the importance of integrating organisational and individual factors in enhancing safety practices within the retail sector.

## RECOMMENDATIONS, LIMITATIONS, FUTURE RESEARCH, AND IMPLICATIONS

Based on the findings, several recommendations are proposed. Retail organisations should reinforce management commitment by integrating safety into everyday operations, demonstrating leadership accountability, and ensuring the provision of adequate resources. Safety training should be delivered regularly, tailored to retail-specific risks, and assessed for effectiveness. A positive safety culture should be cultivated through consistent communication, peer support, and recognition of safe practices, thereby reinforcing workers' safety awareness.

This study is subject to several limitations. Its cross-sectional design restricts causal inference, and reliance on self-reported questionnaires may introduce biases such as social desirability or recall effects. The geographic focus on retail workers in Perlis and Kedah also limits the generalisability of the findings to other regions or sectors. In addition, potential moderating influences of demographic and organisational factors, such as tenure, outlet type, or job category, were not examined, which could have provided deeper insights.

Future studies are encouraged to employ longitudinal or experimental designs to determine causal pathways and track changes over time. Incorporating objective safety indicators, such as accident or near-miss data, alongside self-reports could strengthen validity. Expanding the research scope to include other regions or sectors would enhance generalisability, while examining demographic and organisational moderators would provide a more nuanced understanding of the factors shaping safety behaviour in the retail sector.

Future research should consider longitudinal or experimental designs to determine causal directions. Incorporating objective safety indicators (e.g., accident and near-miss data) alongside self-reports could enhance validity. Comparative studies across industries and regions may also reveal whether the observed relationships are context-specific or more widely applicable, thus informing tailored interventions.

This study provides practical implications for strengthening safety management in Malaysia's retail sector. The findings highlight the need to reinforce leadership commitment, targeted training, and a supportive safety culture to improve worker behaviour. These priorities align with the Occupational Safety and Health Master Plan (OSHMP) 2025, which seeks to extend safety practices beyond traditionally high-risk industries. Embedding safety culture into daily operations through consistent communication, employee involvement, and recognition of safe conduct, alongside retail-specific training and awareness programs, would enable organisations and regulators such as DOSH to address persistent accident and disability rates while advancing national goals for safer workplaces.

From a theoretical perspective, the findings contribute to occupational safety and health literature by reinforcing the importance of socio-organisational determinants in shaping safety behaviour, particularly in service-oriented sectors that have received comparatively less scholarly attention.

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