Assessing the Level of Employees' Safety Performance in Northern Malaysian Small & Medium Manufacturings

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ABSTRACT

In the pursuit of fostering workplace safety as an integral aspect of organisational vitality, present research delves into the landscape of safety performance within Small and Medium Enterprises (SMEs) in Malaysia. Despite facing resource constraints, the sector exhibit commendable dedication to safety, as evidenced by notably high levels of safety participation and compliance discovered among production workers through a cross-sectional study involving 107 professional respondents representing small and medium manufacturing firms in northern Malaysia. This study, addressing a crucial gap in research, sheds light on the need for continuous improvement strategies to sustain and amplify this positive safety culture within SMEs. The findings underline the significance of prioritizing safety initiatives, not only ensuring employee well-being but also fortifying the resilience and success of SME operations in Malaysia. Moving forward, it is imperative for these SMEs to invest in ongoing training programs and maintain open communication channels for safety concerns to further fortify their safety culture. Additionally, a longitudinal study could provide insights into the sustainability of these high safety performance levels over time, while exploring the impact of external factors on safety practices within these SMEs could offer valuable avenues for enhancing safety performance in the evolving business landscape.

Keywords: SME, Safety Performance, Malaysia, Manufacturing

INTRODUCTION

Safety performance within Small and Medium Enterprises (SMEs) stands as a critical facet of organizational management, encompassing various measures aimed at safeguarding the well-being of employees in their workplace environments.

SMEs play a substantial role in bolstering Malaysia's economy (Yusoff et al., 2020). Nonetheless, they also account for approximately 80% of the industrial accident cases recorded in the nation However, SMEs account for 60%-70% of industrial accidents annually (Mat Saat et al., 2016; Nor Azma et al., 2016; Zulkifly & Mohamad Zahir, 2022). Additionally, it could be concluded that most of the accidents within SMEs come from manufacturing sector (Zulkifly et al., 2023). Therefore, the significance of ensuring a safe working environment cannot be overstated, especially within the context of SMEs operating in Malaysia, where the preservation of human capital is paramount to sustainable business operations.

Despite the acknowledged significance of safety performance, SMEs frequently encounter distinct challenges in maintaining stringent safety standards due to limitations in resources, notably financial and human, compounded by various operational constraints. These factors contribute to lower levels of

regulatory compliance and heightened occurrences of accidents compared to other sectors (Mat Saat et al., 2016; Md Deros et al., 2014; Zulkifly, Baharudin, Mahadi, Syed Ismail, et al., 2021). Henceforth, unique approach is imperative to prevent accidents within this sector.

The level of safety performance within any organization stands as the primary predictor of the likelihood and frequency of accidents occurring in the workplace(Neal et al., 2000; Vinodkumar & Bhasi, 2010; Zohar, 2002). A lack of emphasis on safety performance often correlates with increased accident rates, as lapses in safety protocols, inadequate training, or complacency among employees can heighten the risk of workplace incidents. Conversely, organizations prioritizing and fostering a culture of safety through consistent and proactive safety measures typically witness a significant reduction in the occurrence of accidents, thereby safeguarding the well-being of employees and fortifying the operational continuity of the enterprise.

In Malaysia, internal audit records obtained from the Department of Occupational Safety and Health (DOSH) highlighted a concerning trend of inadequate safety performance within SMEs.This fact is supported by previous research which concluded that safety performance of Malaysia's SMEs is at the unsatisfactory level (Md Deros et al., 2014; Surienty et al., 2011; Zulkifly et al., 2021). This assertion finds support in prior research, showcasing the low safety performance among SMEs in Kelantan, Malaysia, as highlighted by Ismail (2020), and the subpar safety compliance among SME contractors in Malaysia, as outlined by Belayutham and Ibrahim, (2019). Apart from the aforementioned studies, there is a scarcity of research investigating the prevalence of safety performance among SMEs in Malaysia. Nonetheless, studies determining the level of safety performance in SMEs are hard to be found.

This paper aims to fill this crucial gap in the existing literature, emphasizing the significance of understanding and addressing this aspect within the context of SME operations in the country.

LITERATURE REVIEW

Safety Performance for SMEs

Research addressing safety performance within Small and Medium Enterprises (SMEs) reveals a landscape fraught with challenges. Ismail's (2020) study in Kelantan, Malaysia, emphasized the distressing trend of low safety performance among SMEs, shedding light on the deficiencies in safety protocols and compliance. Similarly, Belayutham and Ibrahim (2019) underscored the substandard safety compliance among SME contractors in Malaysia, signifying a broader concern regarding safety practices within this sector. These studies collectively expose the vulnerability of SMEs to operational constraints, limited resources, and inadequate regulatory adherence, all of which contribute significantly to compromised safety performance. Moreover, the dearth of extensive research specifically targeting safety performance within SMEs in Malaysia exacerbates the urgency to delve deeper into this critical aspect, as the safety of employees remains a pressing concern in these organizational settings.

METHODOLOGY

This study employs a cross-sectional design, utilizing a self-administered questionnaire as the research's instrument. The measurement items were adapted from prior research. Subsequently, descriptive analyses were conducted to assess the level of safety performance within the studied context.

Sampling and Sample Size

The research sample comprised 107 professionals working as Safety & Health Officers and Human Resource Officers across diverse SMEs in Malaysia's Northern Region. Tabachnick and Fidell (2014) formula was employed to ascertain the suitable sample size, chosen due to its simplicity and ease of

application, facilitating a smoother process for the researcher. The calculation indicated a minimum requirement of 82 respondents to ensure the study's effectiveness. This approach, chosen for its simplicity and ease of application, resulted in a sample size that balanced resource efficiency while maintaining representativeness within the research scope (Tabachnick & Fidell, 2014).

Research Instrument

A self-administered questionnaire, encompassing items to gauge safety performance, was devised to function as the main research tool. Two components namely safety compliance and safety participation were assessed to measure safety performance, similar to previous research (Andrew Neal & Griffin, 2006; Vinodkumar & Bhasi, 2010). Each safety component was assessed by three items. An example itemAll elements within this questionnaire were structured on a Likert scale, ranging from 1 (indicating strong disagreement) to 5 (representing strong agreement), a design adapted from previous study (Neal & Griffin, 2006). Following adaptation, the elements underwent alterations to align with the study's context and underwent scrutiny by experts to ensure their content validity. The final items are such as "Employees use the correct safety procedures for carrying out their job", "Employees use all the necessary safety equipment to do their job" and "Employees voluntarily carry out tasks or activities that help to improve workplace safety", and "Employees voluntarily carry out tasks or activities that help to improve workplace safety".

Pilot Testing

To ensure the questionnaire's reliability, a pilot study was conducted, involving 30 manufacturing staff within Penang, Malaysia. This pilot aimed to assess the questionnaire's clarity, consistency of meaning across respondents, proper design and sequencing of items, required completion time, and appropriateness of language for the participants. The results from the pilot study reveal that the Cronbach's alpha for safety compliance stands at 0.95, while for safety participation, it registers at 0.98. These figures exceed the threshold indicating substantial reliability(Hair et al., 2014).

Data Analysis Technique

The descriptive analysis (mean and standard deviation) was employed to determine the level of safety performance. Davis (1971) established that a variable is deemed high when the mean score falls between 3.68 and 5.00, while a moderate level ranges from 2.34 to 3.67, and a low level spans from 1.00 to 2.33. The collected data was analysed using SPSS software.

RESULTS AND DISCUSSIONS

The recorded mean values of 3.79 for safety participation and 3.99 for safety compliance, as per Davis (1971), indicate a notably high level of safety performance within the studied SMEs. These figures suggest a commendable engagement of employees in safety-related activities and a robust adherence to safety protocols and regulations. The emphasis on safety compliance reflects a proactive approach by these enterprises in implementing and maintaining safety measures, while the high score for safety participation underscores an encouraging involvement of employees in fostering a safe work environment. Such elevated levels of safety performance not only signify a commitment to employee well-being but also imply a positive organizational culture that prioritizes safety as a core value.

However, while these mean values portray a favorable outlook, further investigation into specific areas or practices contributing to this high safety performance is warranted. Exploring the factors driving this commendable adherence to safety protocols and encouraging employee participation could offer valuable insights for other SMEs striving to enhance their safety standards. Additionally, continuous monitoring and refinement of safety initiatives remain crucial to sustain this high level of safety performance and mitigate

complacency, ensuring a resilient safety culture within these organizations.

This study's findings significantly contribute to the existing body of knowledge on safety performance within SMEs, particularly in the context of Northern Malaysia. By showcasing the notably high levels of safety participation and compliance observed in these enterprises, this research fills a crucial gap in the literature. It validates the feasibility and effectiveness of maintaining robust safety standards even within smaller organizational structures. The exploration of factors contributing to this high safety performance offers researchers a foundational understanding, paving the way for more targeted investigations into specific mechanisms driving safety culture in SMEs. Additionally, the study serves as a benchmark for future research endeavors, encouraging a more nuanced examination of safety practices and their long-term sustainability within similar business settings.

For managers and decision-makers in SMEs, the implications are clear and actionable. The demonstrated high levels of safety performance underscore the significance of prioritizing and investing in safety initiatives within these organizations. It highlights the positive outcomes achievable through fostering a culture that values and encourages active participation in safety protocols. Moving forward, it is imperative for managerial teams to sustain this momentum by continuously supporting and reinforcing safety practices. Investing in ongoing training programs, promoting open communication channels for safety concerns, and integrating safety considerations into daily operations can further solidify the existing safety culture. Ultimately, these managerial actions not only ensure the well-being of employees but also contribute to enhanced productivity, reduced operational risks, and the overall resilience of SMEs in Northern Malaysia.

The study's findings on safety performance within SMEs in Malaysia's Northern Region bear significance in both a national and global context. Nationally, the observed high levels of safety participation and compliance among these SMEs align with Malaysia's ongoing efforts to enhance workplace safety. Given that SMEs contribute significantly to the nation's economy but also account for a substantial portion of industrial accidents, the study's demonstration of commendable safety practices within this sector reflects positively on Malaysia's endeavor to improve occupational safety standards. Globally, the study contributes to the discourse on safety performance within SMEs, a sector prevalent in many economies worldwide. The findings underline the feasibility of fostering a robust safety culture even within smaller organizational structures, serving as a benchmark for similar enterprises globally. This aligns with the global push for better workplace safety practices, emphasizing the importance of prioritizing employee well-being irrespective of the scale or sector of operation. Therefore, the study's results not only reinforce Malaysia's national commitment to workplace safety but also offer insights with broader implications for enhancing safety standards within SMEs on a global scale.

CONCLUSION

In conclusion, this study underscores the commendable high level of safety performance observed within the SMEs in the Northern Region of Malaysia, as evidenced by substantial scores in safety participation and compliance. This finding not only highlights the dedication of these enterprises to prioritizing the safety and well-being of their workforce but also signifies the establishment of a robust safety culture within their operational frameworks.

Moving forward, it is imperative for these SMEs to sustain and amplify this positive safety performance by initiating continuous improvement strategies. Regular safety training programs, ongoing monitoring, and periodic reassessment of safety protocols can further fortify the existing safety standards. Moreover, fostering an environment that encourages open communication on safety concerns and initiatives can bolster employee engagement and contribute significantly to maintaining this high level of safety performance.

Limitation of Study and Proposed Future Research

While shedding light on safety performance within SMEs in Malaysia's Northern Region, this study faces several limitations. Primarily, the sampling focus on Safety & Health Officers and Human Resource Officers, excluding insights from other operational employees, potentially limiting the comprehensiveness of safety perspectives. Moreover, the geographical confinement to the Northern Region restricts the generalizability of findings to other regions or countries with different industrial contexts. Employing a cross-sectional design offers a snapshot but lacks the depth of understanding provided by a longitudinal study. Additionally, the reliance on self-reported questionnaires may introduce biases, impacting data accuracy. The study's scope primarily revolves around safety compliance and participation, potentially overlooking broader contextual factors influencing safety performance within SMEs. Addressing these limitations in future research efforts could offer a more holistic understanding and provide actionable strategies to enhance safety standards within SMEs beyond the study's current scope.

For future research endeavors, a longitudinal study could provide insights into the sustainability of these high safety performance levels over time. Exploring the impact of external factors, technological advancements, or regulatory changes on safety practices within these SMEs could also offer valuable avenues for understanding and enhancing safety performance in the evolving business landscape. Ultimately, these recommendations aim to ensure the perpetuation of a safe and secure work environment, fostering not just employee well-being but also the overall sustainability and success of SME operations in Malaysia. Moreover, expanding the sample to include diverse employee roles beyond Safety & Health and Human Resources could offer a comprehensive understanding of safety perceptions and behaviors across various operational functions.

Integrating qualitative methodologies such as interviews or focus groups could supplement quantitative data, capturing nuanced aspects of safety culture and uncovering latent challenges or best practices not readily discernible through quantitative measures alone. Such comprehensive investigations would facilitate a more holistic understanding of safety performance within SMEs, paving the way for targeted interventions and sustainable safety improvement strategies.

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