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**THE LOGISTICS SAFETY PRACTICES AND ORGANISATION
PERFORMANCE IN MALAYSIA**

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Abstract

This study examined the nexus between logistics safety practices and organizational performance in Malaysia. Utilizing regression analysis, data, garnered from logistics firms,

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were analysed to discern the influence of logistics safety practices on various performance indicators. The findings revealed the pivotal role of safety measures in augmenting operational efficiency and effectiveness within Malaysia's logistics landscape. This research would contribute to a nuanced understanding of how safety initiatives impact organizational outcomes, offering insights into the intricate interplay between safety practices and performance metrics. By illuminating these dynamics, policymakers and industry stakeholders can formulate strategies to bolster safety standards and optimize operational performance in the Malaysian logistics sector. Ultimately, this study underscores the imperative of integrating robust logistics safety practices into logistical operations to foster a safer and more productive working environment while simultaneously enhancing organizational performance and competitiveness.

Keywords: Logistics, Safety Practices, Organization Performance, Logistics industry, Malaysia

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1. Introduction

In the contemporary global economy, the logistics sector plays a pivotal role in facilitating the smooth flow of goods and services. In this context, ensuring safety within logistical operations is of paramount importance to safeguard both personnel and assets while also enhancing the organizational performance (Christopher & Peck, 2004; Mkumbo, et al., 2019). In Malaysia, a rapidly developing nation with a burgeoning logistics industry, the interconnection between safety practices and organizational performance, warrants comprehensive investigation. This introduction sets the stage for a study aimed at examining the intricate relationship between logistics safety practices and organizational performance in the Malaysian context (Syakirah, et al., 2020; Zulfakar, et al., 2019).

With the emphasis on empirical analysis, using regression techniques, this study endeavors to shed light on how safety measures impact various performance indicators in the logistics sector. By delving into this relationship, the study

proposes to provide valuable insights for policymakers, industry practitioners, and stakeholders, regarding the critical role of safety protocols in shaping organizational outcomes (Tang 2006). Hence understanding the dynamics between logistics safety practices and organizational performance is not only essential for ensuring the welfare of employees and the integrity of assets but also for bolstering the competitiveness and sustainability of the Malaysian logistics industry.

Against this backdrop, this research seeks to fill a crucial gap in the literature, by offering empirical evidence and practical implications for enhancing safety standards and optimizing operational performance in the Malaysia's logistics sector. By delineating the nexus between safety practices and organizational performance, this study aims to contribute to the advancement of knowledge and the formulation of evidence-based strategies to foster a safer, more efficient, and resilient logistics ecosystem in Malaysia (Akmal et al., 2016; Sivan et al., 2022; Sundram et al., 2020).

2. Literature Review

2.1. Logistics Risk Management

The effective management of logistics risk is crucial for ensuring the safety and reliability of supply chain operations (Akmal, et al., 2016; Atikah & Sundram, 2014; Sivan et al., 2023). Logistics risk practices encompass a range of strategies and procedures aimed at identifying, assessing, and mitigating risks, associated with transportation, warehousing, and inventory management activities. Several studies have highlighted the importance of integrating robust risk management practices into logistics operations, to prevent potential disruptions and enhance overall performance.

Research by Sundram, Rajagopal, Nur Atiqah, Atikah, Appasamy & Zarina (2018), emphasized the significance of proactive risk management strategies in mitigating the impact of supply chain disruptions. They argued that organizations that effectively anticipate and address potential risks are better equipped to maintain continuity and resilience within their logistics operations. Similarly, Tang (2006) emphasized the role of risk assessment tools and techniques, such as risk mapping and scenario analysis, in identifying and prioritizing risks within the logistics network.

Moreover, studies have underscored the importance of collaboration and information sharing, among supply chain partners, in managing logistics risks effectively. For instance, Christopher and Lee (2004) highlighted the benefits of collaborative risk management approaches in enhancing transparency and responsiveness across the supply chain. By fostering closer relationships and communication channels with suppliers, distributors, and other stakeholders, organizations can proactively address potential risks and mitigate their adverse impact on logistics operations.

2.2. Logistics Operating Procedure

Logistics operating procedures encompass the standardized processes and protocols governing various aspects of logistics operations, including transportation, inventory management, and order fulfillment. These procedures are designed to ensure consistency, efficiency, and safety throughout the supply chain network (Vatumalae, et al., 2020; Selvaraju, et al., 2017; Sundram, et al., 2018c; Rajagopal, et al., 2016; Li et al., 2017).

Research by Mentzer et al. (2001) emphasized the importance of standardized operating procedures in improving supply chain performance. They argued that clear and well-documented procedures help to streamline operations, reduce deviations, and enhance overall efficiency within the logistics environment. Moreover, standardized procedures facilitate training and knowledge transfer among employees, ensuring adherence to best practices and safety protocols.

Further, studies have highlighted the role of technology in enhancing the effectiveness of logistics operating procedures. For instance, Ivanov et al. (2016) explored the use of advanced technologies, such as RFID (Radio Frequency Identification) and GPS (Global Positioning System), in optimizing transportation and warehousing operations. By leveraging real-time data and analytics, organizations can improve decision-making and resource allocation, leading to greater operational efficiency and safety (Rasi et al., 2021).

Overall, both logistics risk practices and logistics operating procedures are integral dimensions of logistics safety practices (Selvaraju, et al., 2017; Vatumalae et al., 2022; Vatumalae et al., 2023). Effective risk management strategies and standardized operating procedures play a crucial role in

mitigating risks, ensuring compliance with safety regulations, and optimizing performance within the logistics sector (Sundram, et al., 2018c; Rajagopal, et al., 2016). Future research should further explore the interactions between these dimensions and their impact on overall safety and performance outcomes (Ali et al., 2020; Chen et al., 2019; Li et al., 2015; Ivanov et al., 2020).

3. Statement of the Problem

Despite the growing recognition of the critical importance of safety within the logistics sector, there remains a significant gap in understanding the specific relationship between logistics safety practices and organizational performance in Malaysia (Akmal et al., 2016; Selvaraju, et al., 2017). While anecdotal evidence suggests that robust safety protocols can enhance operational efficiency and effectiveness, empirical research on this topic is limited. Therefore, there is a pressing need to investigate how safety measures impact various performance indicators within the Malaysian logistics industry and to inform evidence-based strategies for improving safety standards and optimizing operational performance.

This study aims to address this gap by exploring the nexus between logistics safety practices and organizational performance through the regression analysis. By examining the relationship between safety initiatives and performance metrics, such as productivity, profitability, and customer satisfaction, this research seeks to provide valuable insights for policymakers, industry practitioners, and stakeholders (Vatumalae, et al., 2022). By identifying the key drivers and barriers influencing the adoption and effectiveness of safety practices within the Malaysian logistics context, this study aims to contribute to the development of tailored interventions to promote a safer and more productive working

environment. Ultimately, by addressing this research gap, this study aims to facilitate the advancement of Malaysia's logistics industry towards sustainable growth and competitiveness.

4. Need of the Study

Embarking on a pioneering research journey, this study analyses into the unexplored domain of logistics safety's influence on organization performance in Malaysia. By dissecting the integration of innovative logistics practices into logistics operations, the study illuminates their transformative potential. Through meticulous analysis, the intricate links between these practices and crucial performance indicators are unveiled, showcasing their role in shaping the logistics landscape. This study aims to provide insights that can guide logistics managers, policymakers, and industry stakeholders in optimizing their strategies and practices.

5. Objective of the Study

The purpose of this study is to look into logistics safety measures and their impact on organizational performance in Malaysia. Further, this study aims to contribute to a larger knowledge of logistics safety's role in encouraging competitiveness within logistics organizations, thereby benefiting Malaysian businesses' long-term growth.

6. Hypotheses of the study

Effective logistics risk management begins with the identification and assessment of potential risks within the supply chain. Studies by Tang (2006) and Christopher and Peck (2004) have emphasized the importance of proactive risk identification and assessment processes. By systematically identifying and evaluating risks, organizations can anticipate potential disruptions and implement pre-emptive measures to mitigate their adverse impact. This proactive approach

not only enhances the resilience of supply chain operations but also contributes to improved organizational performance.

Christopher and Lee (2004) argued that effective logistics risk management can enhance confidence and trust among supply chain partners. By transparently communicating risk management strategies and collaborating on risk mitigation efforts, organizations can foster stronger relationships with suppliers, distributors, and other stakeholders. This increased trust and confidence can lead to greater cooperation, smoother operations, and ultimately, improved organizational performance (**Sundram, Rajagopal, Atikah, & Subramaniam, 2018**).

H-1: Logistics risk management positively affects organization performance.

Mentzer et al. (2001) emphasized the importance of standardized operating procedures in achieving consistency and efficiency within supply chain operations. By establishing clear protocols for tasks such as inventory management, order processing, and transportation, organizations can minimize deviations and streamline processes, leading to improved performance outcomes (**Vatumalae, et al., 2020; Selvaraju, et al., 2017; Sundram, et al., 2018; Rajagopal, et al., 2016; Li et al., 2017**).

While standardized operating procedures provide a framework for consistency, organizations must also maintain flexibility and adapt to changing market conditions and customer requirements. Christopher and Lee (2004) emphasized the importance of agile supply chain practices, which allow organizations to respond quickly to disruptions and seize opportunities for innovation and growth. By balancing standardization with flexibility, organizations can achieve agility and resilience, leading to improved organizational performance (**Ali et al., 2020; Chen et al., 2019; Li et al., 2015; Ivanov et al., 2020**).

H-2: Logistics operating procedure positively affects organization performance.

7. Research Methodology

Utilizing a quantitative research approach, this study employed both structured observation and survey methods through the distribution of questionnaires. This study examined the convergence of information technology and logistics. This methodological approach rests upon the foundation of observed or measured data, enabling an exploration of the dynamics within Malaysian logistics firms. Through a quantitative lens, the study meticulously examined numerical data, providing a robust avenue to unearth comprehensive insights into the nuanced interrelationship between logistics safety practices and organization performance (**Figure 1**).

7.1. Sampling Selection

The research identified firms within the logistics industry in Malaysia as its population. The sampling frame was sourced from the Department of Statistics, Malaysia. Employing a stratified random sampling approach, 200 respondents were chosen, out of an estimated 1000 companies as the population (**Table 2**). Out of the 200-sample population, only 100 responded through e-survey. This method involves segmenting the population into distinct and non-overlapping strata, subsequently selecting a simple random sample from each stratum. The chosen respondents primarily consisted of seasoned senior managers, with extensive expertise in logistics and supply chain management.

7.2. Sources of Data

The sources of data were mainly primary data, obtained from the questionnaire regarding the logistics safety practices and organization performance in Malaysia. For this study, the

primary data were obtained from responses to the questionnaires, which were distributed to the industry players and organizations.

7.3. Period of Study

This study was conducted during the period from Sept 2023 to Feb 2024. The data collection took about six months. After the data collection, the next step was data analysis, to capture the result.

7.4. Tools used in the Study

This study used a quantitative research methodology, with self-administered questionnaires, containing nine items to assess Logistics Risk Management (LRM), Logistics Operating Procedures (LOP), and Organizational Performance (OP). The questionnaires used a five-point Likert Scale, allowing respondents to rate their level of agreement from 1 (strongly disagree) to 5 (strongly agree). The relationship between logistics safety practices and organization performance was then investigated, using regression analysis, allowing relevant insights to be extracted from the collected replies.

8. Data Analysis and Interpretation

In this study, the collected survey data were analyzed, using SPSS. Descriptive statistics was used to create a frequency distribution, which helped to visualize how often different values of a variable occurred. This distribution is usually presented in terms of percentages to show the relative occurrences of each value. Regression analysis was used to model the relationship between two independent variables and a dependent variable. The p-value is a crucial aspect of hypothesis testing in regression analysis. The p-value indicates the probability of obtaining results as extreme as the ones observed in the data, assuming that the null hypothesis was true (i.e., there is no significant relationship). If the p-value is less than a predetermined significance level (often 0.05), it

suggests that the observed relationship is statistically significant, and the null hypothesis may be rejected in favor of the alternative hypothesis, indicating that there was meaningful relationship between the variables.

8.1. Demographic Profile of Logistics Firms in Malaysia

In summary, the data offered insights into the distribution of respondents, across diverse segments, within the logistics industry, alongside the sizes of companies in terms of their workforce and the years since the establishment of the surveyed logistics firms. The comprehensive questionnaire, utilized for this study, generated responses from 100 participants within Malaysia's logistics sector.

Table-1 presents the classification of respondents, based on their engagement in various logistics segments. Among the participants, 20% were affiliated with "Warehousing and Distribution," 10% with "Shipping and Maritime," 25% with "Transportation," and the largest proportion, at 45%, was involved in "Courier and Express Delivery." This breakdown indicated that a significant majority of respondents were predominantly associated with courier and express delivery services.

8.2. Reliability Test for Logistics Safety Practices and Organization Performance in Malaysia

Reliability analysis aims to assess the consistency and steadiness of measurement scales, along with their components. As illustrated in **Table-3**, this analysis procedure calculates various established indicators of scale reliability, providing insights into the connections among individual scale elements. Specifically, a satisfactory level of internal consistency is achieved when Cronbach's Alpha (α) coefficient surpasses 0.7. According to widely accepted

standards, an α value falling between 0.6 and 0.7 is considered acceptable, while a value of 0.8 or higher indicates significantly strong reliability. The data, in **Table 3**, demonstrated that the measurement items, related to Logistics Risk Management, Logistics Operating Procedures, and Organization Performance, displayed reliable characteristics, suggesting dependable internal consistency within these respective scales.

8.3. Correlation Analysis of Logistics Safety Practices and Organization Performance in Malaysia

Pearson correlation analysis was employed to examine the correlation between logistics integration and the independent variable of information technology. Referring to **Table 4**, Logistics Risk Management and Logistics Operating Procedures reported strong correlation with Organization Performance ($r = 0.630, p < 0.01$; $r = 0.802, p < 0.01$). In other words, Logistics Safety Practices were positively correlated with Organizational Performance.

8.4. Multiple Regression Analysis of Logistics Safety Practices and Organization Performance in Malaysia

The findings, depicted in **Table 5**, present the results of a comprehensive multiple-regression analysis, aimed at exploring the relationship between information technology and logistics integration. The analysis underscored the significance of the model, evident from a notable F-value of 15.211, signifying its robustness in explaining 39.8 percent ($R^2 = 0.398$) of the variance observed in logistics integration. Upon closer examination, the results revealed positive and statistically significant correlation between Logistics Risk Management ($\alpha = 0.266, p < 0.000$) and Logistics Operating Procedure ($\alpha = 0.439, p < 0.000$), with

Organization Performance. These findings provided compelling evidence supporting the acceptance of hypotheses H1 and H2, indicating that Logistics Safety Practices played a pivotal role in augmenting Organizational Performance.

9. Findings of the Study

The significant relationship between Logistics Risk Management and Organization Performance revealed the critical importance of effectively managing risks within the logistics sector. Organizations that implement robust risk management practices, are better equipped to anticipate and mitigate potential disruptions, thereby enhancing their operational performance. By proactively identifying and addressing risks associated with transportation, warehousing, and inventory management, companies can minimize the likelihood of disruptions and optimize their overall performance (Sundram, Atikah, Abdul Munir & Zolait, 2018).

Similarly, the significant relationship between Logistics Operating Procedures and Organization Performance highlights the pivotal role of standardized operating procedures in driving organizational efficiency and effectiveness. Organizations that establish clear protocols for tasks such as inventory management, order processing, and transportation are better positioned to streamline operations, reduce errors, and enhance productivity. By fostering consistency and adherence to best practices, standardized operating procedures contribute to improved performance outcomes within the logistics sector.

10. Suggestion

Investigating the determinants of organizational performance, holds paramount importance for researchers in Malaysia within the logistics and safety domain. This inquiry

significantly enriches the existing knowledge base, offering profound insights into the mechanisms, driving effective organizational functioning in the Malaysian context. By identifying and comprehending these factors, researchers can provide invaluable perspectives on optimizing organizational performance, specifically tailored to Malaysia's unique socio-economic and regulatory landscape. Moreover, practitioners, including Malaysian logistics professionals and decision-makers, stand to directly benefit from the findings of such studies. By intelligently managing the relationships between various factors influencing organizational performance, practitioners can foster a culture of collaboration and efficiency in logistics safety practices across Malaysian logistics operations.

11. Conclusion

In conclusion, this research has provided valuable insights into the relationship between logistics safety practices and organizational performance within the context of the study. Through a rigorous multiple regression analysis, the significance of the model was established, indicating its capability to explain a substantial portion of the variability observed in logistics integration. The findings revealed a positive and statistically significant association between Logistics Risk Management and Logistics Operating Procedure, with Organization Performance. These results supported hypotheses H1 and H2, affirming the crucial role of logistics safety practices in enhancing organizational performance.

The implications of these findings are profound for both academics and practitioners within the logistics industry. Academically, this research contributes to the existing body of knowledge, by providing empirical evidence of the impact of logistics safety practices on

organizational performance. Practically, the findings offer actionable insights for logistics professionals and decision-makers, emphasizing the importance of prioritizing risk management and standardized operating procedures to realise organizational success. By integrating robust safety protocols into logistical operations, companies can enhance their operational resilience, optimize resource utilization, and ultimately, achieve higher levels of performance and competitiveness.

Moving forward, future research endeavors may explore additional factors influencing the relationship between logistics safety practices and organizational performance, as well as investigate strategies for further enhancing the effectiveness of safety protocols within the logistics context. Overall, this research underscores the critical importance of logistics safety practices in shaping organizational performance and highlights the need for continued attention and investment in this area to foster a safer, more efficient, and resilient logistics ecosystem.

12. Limitation of Study

Despite the valuable insights gained from this study, several limitations must be acknowledged. Firstly, the reliance on regression analysis may restrict the depth of understanding of the causal relationships between logistics safety practices and organizational performance. Additionally, the study's focus on a specific geographic context, namely Malaysia, limits the applicability of the findings to other regions or countries with different socio-economic and regulatory landscapes. Further, the scope of data collection and analysis may not encompass all facets of safety practices and organizational performance within the logistics sector. Future research endeavors should address these limitations by employing a more diverse range

of methodologies and expanding the geographic scope of investigation.

13. Scope for Further Research

This study provides the groundwork for future research endeavours, aimed at further elucidating the complex dynamics between logistics safety practices and organizational performance. Future studies could employ longitudinal research designs to assess the long-term impact of safety interventions on performance outcomes. Additionally, comparative studies across different industries and countries, could provide valuable insights into the effectiveness of safety measures in diverse contexts.

14. Acknowledgement

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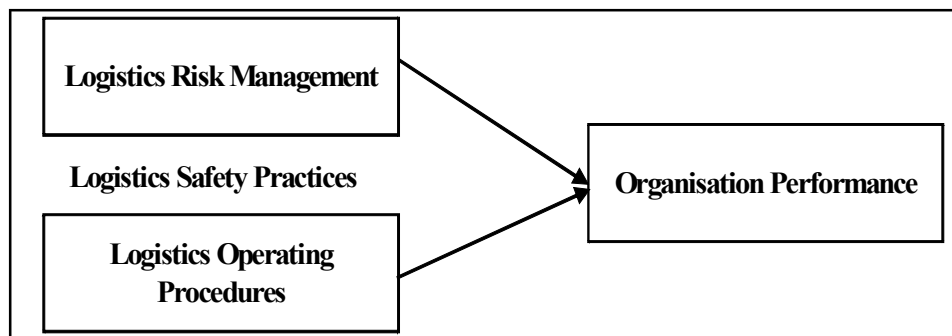
15. References

- Akmal, A. O., Sundram, V. K., Sayuti, N. M., & Atikah, S. B. (2016).** The relationship between supply chain integration, just-in-time and logistics performance: A supplier’s perspective on the automotive industry in Malaysia. *International journal of supply chain management*, 5(1), 44-51.
- Ali, S. N. R., Rajagopal, P., Sundram, V. P. K., Saihani, S. B., & Noranee, S. (2020).** ERP System Implementation in a Leading LED Manufacturing in Malaysia: A Supply Chain Perspective. *International Journal of Supply Chain Management*, 9(2), 104.
- Amnas, M. B., Selvam, M., & Parayitam, S. (2024).** FinTech and Financial Inclusion: Exploring the Mediating Role of Digital Financial Literacy and the Moderating Influence of Perceived Regulatory Support. *Journal of Risk and Financial Management*, 17(3), 108.
- Atikah, S. B., & Sundram, V. P. K. (2014).** The Green Supply Chain Management Practices: A Green Approach. Available at SSRN 2493252.
- Chen, H., Daugherty, P. J., & Roath, A. S. (2009).** Defining and operationalizing supply chain process integration. *Journal of Business Logistics*, 30(1), 63-84.
- Chen, I. J., & Paulraj, A. (2019).** Strategic purchasing, supply management practices, and performance outcomes: An empirical study of industrial firms. *Journal of Supply Chain Management*, 38(2), 45-54.
- Christopher, M., & Lee, H. L. (2004).** Mitigating supply chain risk through improved confidence. *International Journal of Physical Distribution & Logistics Management*, 34(5), 388-396.
- Christopher, M., & Lee, H. L. (2004).** Mitigating supply chain risk through improved confidence. *International Journal of Physical Distribution & Logistics Management*, 34(5), 388-396.
- Christopher, M., & Peck, H. (2004).** Building the resilient supply chain. *International Journal of Logistics Management*, 15(2), 1-14.
- Christopher, M., & Peck, H. (2004).** Building the resilient supply chain. *International Journal of Logistics Management*, 15(2), 1-14.
- Bennet, E., Selvam, M., Indhumathi, G., Ramkumar, R. R., & Karpagam, V. (2011).** Factors influencing retail investors’ attitude towards investing in equity stocks: A study in Tamil Nadu. *Journal of Modern Accounting and Auditing*, 7(3), 316.
- Ivanov, D., Dolgui, A., & Sokolov, B. (2016).** Ripple effect in the supply chain: An analysis and recent literature. *International Journal of Production Research*, 54(1), 160-169.
- Ivanov, D., Dolgui, A., & Sokolov, B. (2020).** The impact of digital technology and Industry 4.0 on the ripple effect and supply chain risk

- analytics. *International Journal of Production Research*, 38(2), 1-18.
- Karoway, C. (1997).** Superior supply chains pack plenty of bytes. *Purchasing Technology*, 8(11), 32-35.
- Li, S., Ragu-Nathan, T. S., Ragu-Nathan, B., & Rao, S. S. (2015).** The impact of supply chain management practices on competitive advantage and organizational performance. *Omega*, 34(2), 107-124.
- Li, S., Ragu-Nathan, T. S., Ragu-Nathan, B., & Rao, S. S. (2017).** Supply chain management: Review, issues, and prospects. *Decision Sciences*, 38(2), 2003-2013.
- Mentzer, J. T., DeWitt, W., Keebler, J. S., Min, S., Nix, N. W., Smith, C. D., & Zacharia, Z. G. (2001).** Defining supply chain management. *Journal of Business Logistics*, 22(2), 1-25.
- Mentzer, J. T., DeWitt, W., Keebler, J. S., Min, S., Nix, N. W., Smith, C. D., & Zacharia, Z. G. (2001).** Defining supply chain management. *Journal of Business Logistics*, 22(2), 1-25.
- Mkumbo, F. A. E., Ibrahim, A. R., Salleh, A. L., Sundram, V. P. K., & Atikah, S. B. (2019).** The influence of supply chain practices and performance measurement practices towards firm performance. *International Journal of Supply Chain Management*, 8(3), 809-819.
- Munir, Z. A., Bhatti, M. A., & Sundram, V. P. K. (2021).** The determinants of humanitarian supply chain efficiency-a case study of flood disaster in Malaysia. *SMART Journal of Business Management Studies*, 17(2), 10-16.
- Rajagopal, P., Azar, N. A. Z., Atikah, S. B., Appasamy, G., & Sundram, V. P. K. (2016).** Determinants of supply chain responsiveness among firms in the manufacturing industry in Malaysia. *International Journal of Supply Chain Management*, 5(3), 18-24.
- Rasi, R. Z., Rakiman, U., Radzi, R. Z. R. M., Masrom, N. R., & Sundram, V. P. K. (2021).** A Literature Review on Blockchain Technology: Risk in Supply Chain Management. *IEEE Engineering Management Review*, 50(1), 186-200.
- Selvam, M., Gayathri, J., Vasanth, V., Lingaraja, K., & Marxiaoli, S. (2016).** Determinants of firm performance: A subjective model. *Int'l J. Soc. Sci. Stud.*, 4, 90.
- Selvaraju, M., Beleya, P., & Sundram, V. P. K. (2017).** Supply chain cost reduction using mitigation & resilient strategies in the hypermarket retail business. *International Journal of Supply Chain Management*, 6(2), 116-121.
- Sivan, S., Chew LL., Ghapar, F., Sundram, VPK and Munir, ZA. (2023).** The relationship between information technology and logistics integration: A case study of Malaysia's logistics and distribution industry, *SMART Journal of Business Management Studies* 19 (2), 1-11.
- Sivan, S., Ghadiri, S. M., Rajagopal, P., Atikah, S. B., & Sundram, V. P. K. (2022).** Adoption and Benefit of Industrial Revolution 4.0 in Logistics Industry: A Conceptual Paper. *Journal of Entrepreneurship, Business and Economics*, 10(2S1), 79-94.
- Sundram, V. P. K., Atikah, S. B., Abdul Munir, Z. B., & Zolait, A. H. (2018).** The effect of supply chain information management and information system infrastructure: The mediating role of supply chain integration towards manufacturing performance in Malaysia. *Journal of Enterprise Information Management*, 31(5), 751-770.
- Sundram, V. P. K., Atikah, S. B., Akmal, A. O., & Munir, Z. A. (2017).** Green supply chain management practices in Malaysia manufacturing industry. *International Journal of Supply Chain Management*, 6(2), 89-95.
- Sundram, V. P. K., Atikah, S. B., Natarajan, V. D., Hariri, S., Rajagopal, R., & Krishnasamy, T. (2016).** *Technology & Industrial Management*. MLSCA, Selangor.

- Sundram, V. P. K., Chhetri, P., & Atikah, S. B. (2020).** The consequences of information technology, information sharing and supply chain integration, towards supply chain performance and firm performance. *Journal of International Logistics and Trade*, 18(1), 15-31.
- Sundram, V. P. K., Rajagopal, P., Atikah, S. B., & Subramaniam, G. (2018).** The role of supply chain integration on green practices and performance in a supply chain context. A conceptual approach to future research. *International Journal of Supply Chain Management*, 7(1), 95-104.
- Sundram, V. P. K., Rajagopal, P., Nur Atiqah, Z. A., Atikah, S. B., Appasamy, G., & Zarina, A. M. (2018).** Supply chain responsiveness in an Asian global electronic manufacturing firm: ABX energy (M). *International Journal of Supply chain management*, 7(2), 23-31.
- Sundram, V. P. K., Razak Ibrahim, A., & Chandran Govindaraju, V. G. R. (2011).** Supply chain management practices in the electronics industry in Malaysia: Consequences for supply chain performance. *Benchmarking: An International Journal*, 18(6), 834-855.
- Syakirah, N., Rajagopal, P., Sundram, V. P. K., Zuraidah, R. R., Ratna, M. N. & Zamry, G. (2020).** Achieving Supply Chain Excellence through Effective Supplier Management: A Case Study of a Marine Organisation. *International Journal of Supply Chain Management*, 9(4), 11-23.
- Tang, O. (2006).** The importance of effective supply chain management for the successful performance of logistics firms. *Management Research News*, 29(1/2), 51-62.
- Vatumalae, V., Rajagopal, P., & Sundram, V. P. K. (2020).** Warehouse Operations Measurement in Hypermarket Retailers: A Review of Literature. *International Journal of Supply Chain Management*, 9(5), 1276.
- Vatumalae, V., Rajagopal, P., Sundram, V. P. K., & Hua, Z. (2022).** A study of retail hypermarket warehouse inventory management in Malaysia. *SMART Journal of Business Management Studies*, 18(1), 71-79.
- Vatumalae, V., Rajagopal, P., Sundram, V. P. K., Zarina, A.M., and Ghapar., F. (2023).** Linking Factors Leading to Retail Hypermarket Warehouse Operations Performance in Malaysia *SMART Journal of Business Management Studies* 19 (1), 1-9.
- Zulfakar, M., Chan, C., Jie, F., & Sundram, V. P. K. (2019).** Halal accreditation and certification in a non-muslim country setting: Insights from Australia halal meat supply chain. *International Journal of Supply Chain Management*, 8(1), 10-17.

Figure 1: Conceptual Framework



Source: Framed by Authors

Table-1 : Demographic Profile of Logistics Firms in Malaysia

	Categories	Frequency	Percentage (%)
Area of logistics	Warehousing and Distribution	20	20%
	Shipping and Maritime	10	10%
	Land Transportation	25	25%
	Courier and Express Delivery	45	465%
Number of employees	Less than 50	40	40%
	50- 99	20	20%
	100 - 500	24	24%
	More than 500	16	16%
Years of establishment	Less than or equal to 10	30	30%
	10 - 20	21	21%
	21 - 30	10	10%
	More than 30	39	39%

Source: Primary Data & Computed using SPSS

Table 2: Strata for the Population, Sample Frame, and Survey Responses

Strata	Population	Sample	Responses (response rate)
Less than 50	300	60	35 (17.5%)
50- 99	270	54	29 (14.5%)
100 - 500	200	40	18 (9.00%)
More than 500	230	46	18 (9.00%)
	1000	200	50%

Source: Generated by Authors

Table 3: Reliability Test of Logistics Risk Management, Logistics Operating Procedures and Organisation Performance in Malaysia

Variables	Cronbach Alpha
Logistics Risk Management	0.846
Logistics Operating Procedures	0.893
Organization Performance	0.782

Source: Primary data computed using SPSS

Table 4: Correlation between Logistics Risk Management, Logistics Operating Procedures and Organisation Performance in Malaysia

Variable	LRM	LOP	OP
Logistics Risk Management	1.000		
Logistics Operating Procedures	0.760**	1.000	
Organization Performance	0.630**	0.802**	1.000

** significant at 0.01 level (2-tailed)

Source: Primary Data & Computed using SPSS

Table 5: Multiple Regression Analysis between Logistics Risk Management, Logistics Operating Procedures and Organisation Performance in Malaysia

Independent Variable	Organization Performance			Hypothesis	Result
	Beta (β)	t-value	Sig.		
Logistics Risk Management	0.266	2.445	0.000	H1	Accepted
Logistics Operating Procedures	0.439	3.887	0.000	H2	Accepted
F-value	15.211				
R-square	0.398				
***Significant at the 0.001 level					

Source: Primary Data & Computed using SPSS