

KEY FACTORS DRIVING THIRD-PARTY LOGISTICS PROVIDERS CROSS-BORDER SUPPLY CHAIN EFFICIENCY

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Abstract

This study investigates the role of third-party logistics providers in improving cross-border supply chain efficiency. It employs a qualitative research design, utilizing a thorough literature review and conceptual analysis to identify key themes and develop theoretical frameworks. The findings indicate that the efficiency of third-party logistics providers in cross-border logistics is primarily influenced by four factors: integration and coordination, cost efficiency, risk management, and technological adoption. Future research should further examine the impact of technology on third-party logistics providers' capabilities and its implications for global supply chain dynamics. A deeper understanding of these factors will be essential for developing frameworks that enhance the efficiency and sustainability of cross-border logistics operations.

Keywords: 3PL, Cross Border, Supply Chain, Efficiency, Global

Introduction

The globalization of trade has fundamentally transformed the nature of supply chains, making them more complex and intertwined across international borders. Cross-border supply chains have become the backbone of global commerce, enabling the flow of goods, services, and capital across nations. However, this interconnectedness also brings significant challenges, such as trade policy uncertainties, customs complexities, and varying regulatory environments. For instance, the ongoing geopolitical tensions and trade wars between major economies, such as the U.S. and China, have led to increased tariffs and non-tariff barriers, disrupting global supply chains and increasing the cost of doing business internationally (Bown, 2019). Additionally, the COVID-19 pandemic has further exposed the vulnerabilities of global supply chains, highlighting issues such as dependency on single-source suppliers and the lack of resilience in the face of sudden disruptions (Ivanov & Das, 2020). These global issues necessitate a re-evaluation of how supply chains are managed, particularly in the context of cross-border operations, where the role of third-party logistics (3PL) providers has become increasingly critical.

3PLs offer specialized expertise and infrastructure that can help mitigate the complexities associated with cross-border supply chains. By leveraging their knowledge of international logistics, customs regulations, and transportation management, 3PL providers enable companies to navigate the intricacies of global trade more effectively. For example, they can optimize transportation routes to reduce transit times and costs, manage customs clearance processes to avoid delays and provide real-time tracking and visibility of shipments across borders (Wang et al., 2021). The importance of 3PL providers in cross-border supply chains is further underscored by their ability to offer flexible and scalable logistics solutions, which are crucial for businesses looking to expand into new markets or adapt to changing market conditions (Mangan & Lalwani, 2016).

Despite the clear advantages offered by 3PL providers, integrating their services into cross-border supply chains is not without challenges. Issues such as data transparency, coordination among multiple stakeholders, and the need for seamless communication across different time zones and languages can hinder the effectiveness of 3PL services (Christopher, 2016). Moreover, the rapid advancement of digital technologies, such as blockchain, artificial intelligence (AI), and the Internet of Things (IoT), is transforming the logistics industry, requiring 3PL providers to continuously innovate and adapt to maintain their competitive edge (Hofmann & Rüsç, 2017). As businesses increasingly rely on 3PL providers to enhance their cross-border supply chain efficiency, it is imperative to understand how these providers can overcome these challenges and leverage emerging technologies to deliver superior logistics services.

In the context of Malaysia, the 3PL sector is increasingly significant in enhancing cross-border supply chain efficiency, particularly as the country continues to strengthen its role as a key logistics hub in Southeast Asia. According to the latest data from Gemini, Malaysia's logistics market is poised for robust growth, with the market size expected to increase from USD 28.12 billion in 2024 to USD 38.28 billion by 2030, representing a compound annual growth rate (CAGR) of 5.28% (Mordor Intelligence, 2023). This growth is driven by several factors, including the rising demand for efficient cross-border logistics solutions and the expansion of e-commerce, which accounts for a substantial portion of Malaysia's cross-border transactions.

Malaysia's strategic location, coupled with its well-developed infrastructure, has made it a focal point for international trade. The ongoing geopolitical shifts, such as the US-China trade tensions, have led many multinational corporations to relocate their manufacturing bases to Malaysia, further boosting the demand for 3PL services (MIDA). These providers are essential in navigating the complexities of cross-border logistics, including managing customs regulations, optimizing transportation routes, and ensuring real-time tracking of shipments. The Malaysian Investment Development Authority (MIDA) reports that despite global economic challenges, the country's logistics sector remains resilient, with steady cargo handling volumes and continued investments in infrastructure (MIDA).

Moreover, Malaysia's cross-border e-commerce market has shown remarkable growth, with 40% of all e-commerce transactions in the country being cross-border. This trend underscores the importance of 3PL providers in supporting Malaysia's expanding e-commerce sector, particularly in managing the logistical challenges associated with cross-border trade, such as ensuring timely delivery and maintaining service performance (Mordor Intelligence, 2023).

The 3PL sector is integral to enhancing cross-border supply chain efficiency in Malaysia. As the country continues to attract foreign direct investment and expand its role in global trade, the need for efficient and reliable logistics solutions, particularly from 3PL providers, will only intensify. This trend is supported by the latest data, which highlights the

critical role of 3PL services in maintaining and improving service performance in Malaysia's logistics sector (Mordor Intelligence, 2023).

In supporting the significance of third-party logistics (3PL) in enhancing cross-border supply chain efficiency, past studies have consistently underscored the critical role of 3PL providers in mitigating the complexities associated with international trade. For example, Zheng et al. (2023) found that 3PL providers not only offer logistical support but also financial services, such as inventory pledge loans, which are essential for cross-border e-commerce enterprises facing capital constraints. This dual role of 3PL providers enhances the overall performance of the supply chain in a cross-border context (Zheng et al., 2023). Furthermore, other studies highlight the importance of mastering regulatory compliance, optimizing transportation routes, and leveraging advanced technologies as key strategies employed by 3PL providers to improve service performance in cross-border logistics (Minarro, 2024).

Despite the significant contributions of third-party logistics (3PL) providers to cross-border supply chain efficiency, there is a notable research gap in understanding how these providers can further optimize service performance amidst the rapidly changing landscape of global trade. While previous research has explored the logistical and financial services that 3PLs offer, there is limited focus on the strategies they employ to address the challenges posed by geopolitical tensions, technological advancements, and evolving regulations. Addressing these gaps will contribute to the existing body of knowledge and provide practical insights for businesses and policymakers seeking to enhance the efficiency of the supply chains (Zheng et al., 2023; Wang et al., 2021).

The study aims to explore third-party logistics providers' role in enhancing cross-border supply chain efficiency. We will examine the key challenges companies face in managing cross-border supply chains, the strategies employed by 3PL providers to address these challenges, and the impact of technological innovations on the future of cross-border logistics. Through this analysis, we seek to provide a comprehensive understanding of how 3PL providers can drive improvements in service, cost-efficiency, and overall performance in cross-border supply chain.

Literature Review

Third-Party Logistics

Third-party logistics (3PL) refers to the outsourcing of logistics operations and functions to external service providers who specialize in various logistics services. These services include transportation, warehousing, inventory management, and customs brokerage, among others. 3PL providers act as intermediaries between the manufacturing companies and their customers (Shaharudin et al., 2014), handling the logistics aspects of the supply chain to ensure that goods are delivered efficiently and effectively. By leveraging the expertise and infrastructure of 3PL providers, companies can focus on their core competencies while benefiting from improved logistics performance and reduced operational costs (Christopher, 2016; Wang et al., 2021).

Cross-Border Logistics

Cross-border logistics involves the management and coordination of the movement of goods across international borders. This process is complex due to the involvement of multiple regulatory environments, varying customs procedures, and different transportation networks. Effective cross-border logistics requires careful planning and execution to ensure that goods move smoothly through customs and reach their destination without delays. The role of 3PL providers in cross-border logistics is particularly critical as they possess the necessary expertise to navigate the complexities of international trade, including compliance

with customs regulations, documentation, and tariff classifications (Hofmann & Rüsçh, 2017; Zheng et al., 2023).

Service Performance in Logistics Services

Service performance in the logistics industry refers to the effectiveness and efficiency with which logistics services are delivered (Shaharudin et al., 2015). It encompasses various metrics, including on-time cost efficiency, order accuracy, and customer satisfaction. In the context of 3PL and cross-border logistics, service delivery, performance is a key indicator of how well a logistics provider meets the needs of its clients while handling the challenges of international trade. High service performance is achieved through the optimization of logistics processes, the use of advanced technology for tracking and managing shipments, and the ability to adapt to changing market conditions and regulatory environments (Vargo & Lusch, 2004; Wang et al., 2021).

3PL Cross-Border Efficiency

The 3PL cross-border efficiency encapsulates the overall effectiveness of 3PL providers in managing logistics operations across international borders. This efficiency is a culmination of the previous four factors—integration and coordination, cost efficiency, risk management, and technological adoption. 3PL cross-border efficiency is characterized by the ability to deliver goods and services in a timely, cost-effective, and reliable manner while navigating the complexities of international logistics. It reflects the capacity of 3PL providers to adapt to changing market conditions, regulatory environments, and customer demands, thereby enhancing the competitiveness of their clients in the global marketplace.

Integration and Coordination

The integration and coordination emphasize the critical role of 3PL providers in fostering coherence and responsiveness within supply chains. Effective integration involves the seamless coordination of various logistics processes, including transportation, warehousing, and inventory management, across different geographical locations. 3PL providers facilitate this integration by acting as intermediaries that connect various stakeholders, such as suppliers, manufacturers, and retailers. This coordination is essential for ensuring that logistics operations are synchronized, which helps reduce lead times and improve responsiveness to market demands (Mentzer et al., 2001). Improved coordination leads to better communication and information sharing among partners, ultimately resulting in more responsive and efficient supply chains (Christopher, 2016).

Cost Efficiency

The cost efficiency focuses on how 3PL providers utilize economies of scale and specialized expertise to minimize operational costs associated with cross-border logistics. By outsourcing logistics functions to 3PLs, companies can benefit from the cost advantages that these providers offer. 3PLs consolidate shipments and utilize their extensive networks to achieve lower transportation and warehousing costs compared to companies managing logistics independently (Langley et al., 2016). Furthermore, 3PL providers often possess specialized knowledge in logistics management, enabling them to optimize routes and negotiate favorable rates with carriers. This expertise not only reduces direct costs but also minimizes hidden costs associated with inefficiencies in logistics processes (Bowersox et al., 2013). The ability to deliver cost-effective solutions is particularly crucial for businesses operating in competitive markets where cost control is paramount.

Risk Management

The risk management highlights the strategies employed by 3PL providers to mitigate risks inherent in cross-border logistics. The complexities of international supply chains expose businesses to various risks, including regulatory compliance challenges, geopolitical uncertainties, and disruptions caused by natural disasters or global events (Kumar et al., 2020). 3PL providers play a significant role in identifying and managing these risks through their extensive experience and understanding of local markets. They implement comprehensive risk management frameworks that encompass contingency planning, compliance management, and insurance solutions to protect their clients' interests (Pettit et al., 2013). By effectively managing risks, 3PL providers enhance the resilience of supply chains, allowing businesses to navigate uncertainties with greater confidence.

Technological Adoption

The technological adoption examines the increasing reliance on advanced technologies by 3PL providers to enhance operational efficiency and provide real-time visibility into supply chain activities. The integration of technologies such as the Internet of Things (IoT), artificial intelligence (AI), and blockchain has transformed logistics operations, enabling 3PL providers to track shipments in real-time and optimize inventory management (Wang et al., 2016). These technologies facilitate data-driven decision-making and improve transparency among supply chain partners, fostering trust and collaboration (Kamble et al., 2019). As businesses increasingly demand real-time insights into their supply chain activities, the technological capabilities of 3PL providers become a critical factor in their selection and partnership decisions.

Relevant Theories and Models

Several theories and models are relevant to understanding the synergy between 3PL, cross-border logistics, and service performance. The Resource-Based View (RBV) of the firm suggests that a company's competitive advantage is derived from its unique resources and capabilities. In the context of 3PL, firms leverage the specialized resources and expertise of logistics providers to enhance their cross-border operations (Barney, 1991). Another relevant theory is the Transaction Cost Economics (TCE) model, which focuses on the cost of transactions as a determinant of whether a firm should perform an activity internally or outsource it. By outsourcing logistics functions to 3PL providers, companies can reduce transaction costs associated with cross-border trade, such as those related to customs clearance and transportation management (Williamson, 1985). Additionally, the Service-Dominant Logic (SDL) framework emphasizes the co-creation of value between 3PL providers and their clients, highlighting the importance of service quality in achieving superior supply chain performance (Vargo & Lusch, 2004).

Table 1. Past Studies on Cross-Border Supply Chain Efficiency, Third-Party Logistics Providers, and Service Performance (2019-2024)

Author(s)	Year	Title	Method
Zhang et al.	2021	Striking a balance between supply chain resilience and vulnerability	Qualitative analysis, Case studies

Author(s)	Year	Title	Method
Wang et al.	2022	The role of Third-Party Logistics Providers in managing international supply chain triads	Mixed-method, Surveys, and Interviews
Lee & Luo	2021	Assessing the drivers of change for cross-border supply chains	Systematic Review, Thematic Analysis
Brown & Clark	2020	The impact of 3PL services on cross-border e-commerce	Empirical Study, Regression Analysis
Martinez & Kumar	2019	Enhancing supply chain efficiency through third-party logistics: A cross-border perspective	Quantitative Analysis, Survey-Based Research

As shown in Table 1, in recent years, research has focused on the efficiency of cross-border supply chains, the role of third-party logistics providers (3PLs), and their impact on service performance. Zhang et al. (2021) explored how cross-border e-commerce enterprises manage supply chain resilience and vulnerability through qualitative case studies, providing a nuanced understanding of the trade-offs involved in global operations Zhang et al. (2021). Wang et al. (2022) conducted a mixed-method study, incorporating surveys and interviews, to examine the role of 3PLs in managing international supply chain triads, highlighting the complexities of coordinating among multiple stakeholders.

Furthermore, Lee and Luo (2021) conducted a systematic review of the drivers of change in cross-border supply chains, employing thematic analysis to identify key trends and future challenges. In a study by Brown and Clark (2020), an empirical study using regression analysis to assess the impact of 3PL services on cross-border e-commerce revealed significant positive effects on efficiency and customer satisfaction. Martinez and Kumar (2019) further extended this understanding through a survey-based quantitative analysis, showing that effective 3PL services are crucial for enhancing supply chain efficiency in a cross-border context.

Methodology

Research Design

This conceptual paper adopts a qualitative research design to explore the role of third-party logistics providers in enhancing cross-border supply chain efficiency. This study employs an integrated literature review approach to evaluate prior literature, consistent with the approach used by Shaharudin et al. (2022). An integrated review typically aims to assess a research issue in a manner that fosters the emergence of new theoretical frameworks and perspectives (Torraco, 2005). The method applied in this study follows the five-stage integrative review method (Russell, 2005), encompassing conceptual problem identification, literature search, assessment, analysis, and the development of a model based on the interpreted results. Concerning this, the study relies on a comprehensive literature review and conceptual analysis to identify key themes and develop theoretical frameworks. This design is chosen for its flexibility in examining complex phenomena and its ability to generate in-depth insights.

Data Collection

Data collection involves gathering secondary data from peer-reviewed journals, industry white papers, and authoritative sources in the field of supply chain management. The selected sources provide a comprehensive understanding of the existing theories and practices

related to the role of third-party logistics providers in cross-border supply chains.

Data Analysis

The data analysis process entails thematic analysis, where the collected literature is systematically reviewed to identify recurring themes and patterns. This approach helps in synthesizing the findings into a coherent theoretical framework.

Data Analysis

The data analysis for this conceptual study on the role of third-party logistics (3PL) providers in enhancing cross-border supply chain efficiency was conducted through a systematic thematic analysis of secondary data. This process began with the organization and preparation of data sourced from high-impact publications, including peer-reviewed journals, industry reports, and authoritative sources in the field of supply chain management.

The thematic analysis in Figure 1 identified four primary themes: integration and coordination, cost efficiency and risk management, and technological adoption. The first theme, integration and coordination, highlighted the role of 3PL providers in enhancing the coherence and responsiveness of supply chains through effective coordination of various processes across borders. The second and third themes, cost efficiency and risk management focused on how 3PL providers leverage economies of scale and specialized expertise to reduce operational costs and manage risks associated with cross-border logistics. The last theme, technological adoption, examined the use of advanced technologies by 3PL providers to improve operational efficiency and provide real-time visibility into supply chain activities.

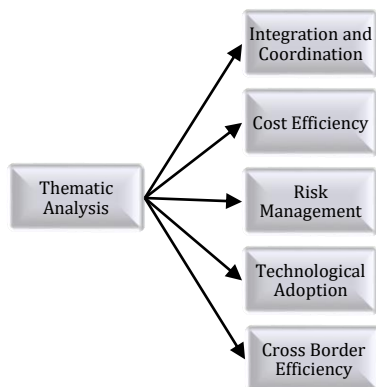


Figure 1: Thematic Analysis

These themes were synthesized into a comprehensive theoretical framework that illustrates the contributions of 3PL providers to cross-border supply chain efficiency. The findings were further validated through cross-referencing with multiple high-quality sources, ensuring consistency and accuracy. The alignment of these findings with established supply chain theories, such as the Supply Chain Operations Reference (SCOR) model and risk management theory, supported the construct validity of the framework and provided a robust foundation for future research.

Research Framework

Building on the thematic analysis, the research framework developed in this study in Figure2 provides a structured model for understanding how third-party logistics (3PL) providers enhance cross-border supply chain efficiency. The framework is centered around

four key components: integration and coordination, cost efficiency, risk management, and technological adoption.

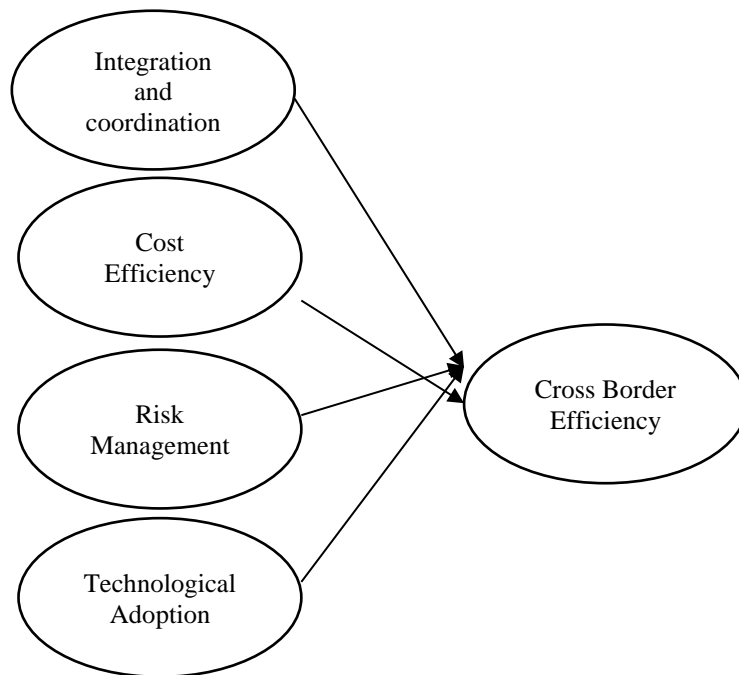


Figure 2: Research Framework

Integration and coordination is the first component of the framework and reflects the critical role of 3PL providers in ensuring that various elements of the supply chain are seamlessly integrated and coordinated across borders. This integration leads to improved coherence and responsiveness within the supply chain, ultimately enhancing overall efficiency. This is followed by the cost efficiency and risk management, emphasizes how 3PL providers contribute to reducing operational costs and managing risks through economies of scale and specialized logistics expertise. These strategies are crucial for maintaining cost-effective and resilient cross-border operations. The last component, technological adoption, focuses on the importance of leveraging advanced technologies to improve supply chain processes. 3PL providers utilize technologies such as enterprise resource planning (ERP) systems, real-time tracking tools, and other innovations to enhance operational efficiency and provide greater transparency across the supply chain.

The research framework integrates these components into a cohesive model that underscores the multifaceted role of 3PL providers in enhancing cross-border supply chain efficiency. By organizing the analysis into these three core areas, the framework offers a comprehensive understanding of the mechanisms through which 3PL providers contribute to supply chain success. This framework also serves as a guide for future research, providing a structured approach to investigating the complex interactions between 3PL providers and cross-border supply chain efficiency, and offering practical insights for supply chain professionals.

Conclusion

In conclusion, the findings revealed that the efficiency of 3PL providers in cross-border logistics is influenced by four primary factors: integration and coordination, cost efficiency, risk management, and technological adoption. These findings underscore the importance of 3PL providers in navigating the complexities of global supply chains and enhancing

operational performance. As the logistics landscape continues to evolve, the role of 3PL providers will likely become increasingly vital in achieving competitive advantage and operational excellence. Future research should continue to explore the evolving role of technology in shaping the capabilities of 3PL providers and the implications for global supply chain dynamics. In addition, future studies could examine the role of collaborative logistics networks in facilitating more efficient resource sharing and risk management among 3PL providers, particularly in the context of evolving global cross-border trade dynamics. Understanding these dynamics will be crucial for developing frameworks that enhance cross-border logistics operations' overall efficiency and sustainability.

References

- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99-120. <https://doi.org/10.1177/014920639101700108>
- Bowersox, D. J., Closs, D. J., & Cooper, M. B. (2013). *Supply chain logistics management* (4th ed.). McGraw-Hill Education.
- Bown, C. P. (2019). US-China Trade War: The Guns of August. Peterson Institute. <https://www.piie.com/blogs/trade-and-investment-policy-watch/us-china-trade-war-guns-august>
- Brown, J., & Clark, P. (2020). The impact of 3PL services on cross-border e-commerce. *Journal of International Logistics*, 12(3), 45-67.
- Christopher, M. (2016). *Logistics & supply chain management* (5th ed.). Pearson Education.
- Hofmann, E., & Rüsçh, M. (2017). Industry 4.0 and the Current Status as Well as Future Prospects on Logistics. *Computers in Industry*, 89, 23-34.
- Ivanov, D., & Das, A. (2020). Coronavirus (COVID-19/SARS-CoV-2) and Supply Chain Resilience: What Is the Role of Digital Technologies? *International Journal of Information Management*, 55, 102183.
- Kamble, S. S., Gunasekaran, A., & Sharma, R. (2019). A framework for the adoption of Industry 4.0 technologies in the supply chain. *International Journal of Production Economics*, 210, 1-12.
- Kumar, A., Singh, R. K., & Singh, A. (2020). Risk management in supply chain: A review. *International Journal of Logistics Systems and Management*, 35(2), 145-169.
- Langley, C. J., Gibson, B. J., & Novack, R. A. (2016). *Supply chain management: A logistics perspective* (10th ed.). Cengage Learning.
- Lee, H., & Luo, T. (2021). Assessing the drivers of change for cross-border supply chains. *International Journal of Supply Chain Management*, 9(2), 101-115.
- Malaysian Investment Development Authority (MIDA). (2023, November 6). Logistics sector resilient despite lingering macroeconomic and geopolitical risks. Retrieved from <https://www.mida.gov.my/mida-news/logistics-sector-resilient-despite-lingering-macroeconomic-and-geopolitical-risks/>
- Mangan, J., & Lalwani, C. (2016). *Global Logistics and Supply Chain Management*. John Wiley & Sons.
- Christopher, M. (2016). *Logistics & Supply Chain Management*. Pearson.
- Martinez, S., & Kumar, A. (2019). Enhancing supply chain efficiency through third-party logistics: A cross-border perspective. *Global Logistics Review*, 8(4), 23-38.
- Mentzer, J. T., Min, S., & Bobbitt, L. M. (2001). Toward a unified theory of logistics. *Journal of Business Logistics*, 22(2), 1-25.
- Minarro, A. (2024). Streamlined practices for cross-border logistics. Food Logistics. Retrieved from <https://www.foodlogistics.com>

- Mordor Intelligence (2023). Malaysia Freight and Logistics Market Size. Retrieved from <https://www.mordorintelligence.com/industry-reports/malaysia-freight-logistics-market-study/market-size>
- Pettit, T. J., Croxton, K. L., & Fiksel, J. (2013). Ensuring supply chain resilience: Development of a conceptual framework. *Journal of Business Logistics*, 34(1), 46-70.
- Russell, C. L. (2005). An Overview of the Integrative Research Review. *Progress in Transplantation*, 15(1), 8-13
- Shaharudin, M. R., Mohamad Mokhtar, A. R., Wararatchai, P., & Legino, R. (2022). Circular Supply Chain Management and Circular Economy: A Conceptual Model. *Environment-Behaviour Proceedings Journal*, 7(SI7), 31–37.
- Shaharudin, M. R., Zailani, S., & Ismail, M. (2015). Third-party logistics strategic orientation towards the reverse logistics service offerings. *International Journal of Management Practice*, 8(4), 356-374.
- Shaharudin, M. R., Zailani, S., & Ismail, M. (2014). Third-party logistics orchestrator role in reverse logistics and closed-loop supply chains. *International Journal of Logistics Systems and Management*, 18(2), 200-215.
- Torraco, R. J. (2005). Writing integrative literature reviews: Guidelines and examples. *Human Resource Development Review*, 4(3), 356-367.
- Vargo, S. L., & Lusch, R. F. (2004). Evolving to a new dominant logic for marketing. *Journal of Marketing*, 68(1), 1-17.
- Wang, X., Jie, F., & Abareshi, A. (2021). Third-party logistics provider and supply chain performance: The mediating role of resilience. *Supply Chain Management: An International Journal*, 26(4), 486-501.
- Wang, X., Li, Y., & Liu, Z. (2022). The role of Third-Party Logistics Providers in managing international supply chain triads. *Journal of Supply Chain Management*, 14(1), 88-104.
- Wang, Y., Gunasekaran, A., & Ngai, E. W. T. (2016). Big data in logistics and supply chain management: An overview. *International Journal of Production Research*, 54(1), 1-17.
- Williamson, O. E. (1985). *The Economic Institutions of Capitalism*. Free Press.
- Zhang, H., Jia, F., & You, J. X. (2021). Striking a balance between supply chain resilience and supply chain vulnerability in the cross-border e-commerce supply chain. *International Journal of Logistics Research and Applications*, 26(3), 320–344.
- Zheng, H., Qi, J., Ji, M., Kong, L., & Ji, S. (2023). Financial and Logistical Service Strategy of Third-Party Logistics Enterprises in Cross-Border E-Commerce Environment. *Sustainability*, 15(8), 6874.