

The Strategic Role of Supply Chain and Logistics in MNC Success

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Abstract: *This study examines the critical role of supply chain management (SCM) and logistics in the operational success of multinational corporations (MNCs) in the current globalized economy. With increasing complexity in global operations, SCM and logistics have become essential for optimizing efficiency, managing risks, and maintaining customer satisfaction. Although previous research highlights the technical aspects of SCM, a knowledge gap exists regarding the strategic application of these practices in fostering competitive advantage and resilience, particularly in emerging markets. To address this gap, a qualitative research approach was employed, using case studies and semi-structured interviews with MNC executives in Singapore. The study explores how MNCs integrate technology, manage global coordination, and adopt sustainability practices in their SCM frameworks. The findings reveal that technological advancements, such as IoT and AI, enhance supply chain visibility and agility, while sustainability practices are increasingly becoming a priority for MNCs. However, challenges remain in fully integrating these technologies and in achieving cohesive global supply chain coordination. The results highlight the importance of strategic partnerships with suppliers and third-party logistics providers (3PLs). The study concludes that effective SCM strategies not only reduce costs but also foster innovation and enhance long-term competitiveness. The implications suggest that MNCs must continue investing in digital and sustainable practices to maintain resilience in an increasingly volatile market environment. Further research is needed to explore agile SCM frameworks and the role of smaller logistics providers in enhancing global supply chain adaptability.*

Keywords: *Supply Chain Management (SCM), Logistics, Multinational Corporations (MNCs), Technological Integration, Sustainability, Global Coordination, Third-Party Logistics (3PL), Risk Management, Competitive Advantage, Supply Chain Resilience, Innovation in SCM, Agile Supply Chain Strategies.*

Introduction

In today's globalized economy, multinational corporations (MNCs) face increasing complexities in managing operations across diverse regions[1]. The efficiency of supply chain management (SCM) and logistics has become a critical component of MNC success, directly influencing their ability to stay competitive[2]. SCM encompasses the coordination of procurement, production, distribution, and reverse logistics, while logistics focuses on the efficient movement and storage of goods. Both are essential in reducing costs, enhancing operational flexibility, and ensuring customer satisfaction. This article explores the strategic role of SCM and logistics in fostering the competitiveness and resilience of MNCs operating in dynamic global markets[3].

The relationship between SCM and logistics and MNC performance is grounded in several major concepts, including transaction cost theory[4], resource dependence theory, and network orchestration. Transaction cost theory suggests that firms manage supply chains to minimize costs related to procurement and distribution. Resource dependence theory emphasizes how firms rely on external resources, like suppliers, to optimize their operations[5]. Network orchestration highlights the management of complex global networks to create value. These theoretical frameworks inform our understanding of how SCM and logistics function as pivotal drivers of efficiency and sustainability within MNCs[6].

While substantial research has been conducted on SCM and logistics, gaps remain in understanding how these functions specifically contribute to competitive advantage in MNCs. Previous studies have primarily focused on the technical aspects of SCM, such as technology integration and lean management. However, there is limited empirical research on how SCM and logistics strategies directly impact MNC adaptability, particularly in emerging markets and during global disruptions. This study addresses this gap by examining how MNCs leverage SCM and logistics to navigate market changes, mitigate risks, and maintain profitability[7].

This study adopts a mixed-method approach[8], combining qualitative case studies and semi-structured interviews with MNC executives in Singapore. The method enables an in-depth exploration of how SCM and logistics strategies are implemented in practice. The analysis focuses on identifying best practices, challenges, and innovations that enhance SCM and logistics efficiency. By doing so, the study seeks to provide actionable insights into how MNCs can optimize their global supply chain networks for sustained growth and competitive advantage[9].

The findings are expected to reveal that effective SCM and logistics practices are essential not only for cost reduction but also for[10] fostering innovation, customer satisfaction, and risk management in MNCs. The results will highlight the importance of integrating technological advancements, sustainable practices, and agile strategies into SCM frameworks[10]. Ultimately, this study contributes to the existing body of knowledge by filling gaps in the empirical understanding of the strategic role of SCM and logistics in driving MNC success, offering practical implications for improving supply chain resilience in an increasingly interconnected world[9].

Methodology

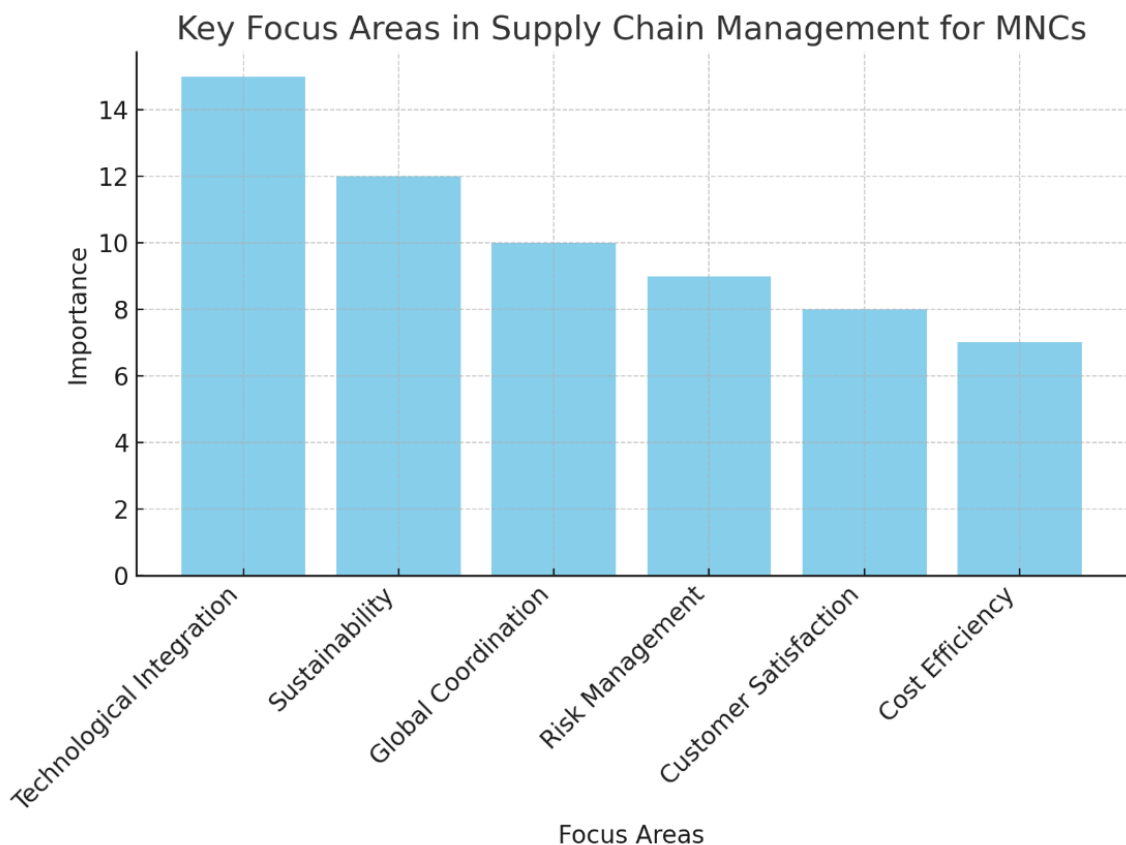
This study employs a qualitative research methodology to explore the strategic role of supply chain management (SCM) and logistics in multinational corporations (MNCs). The research is centered on case studies and semi-structured interviews with key industry players, including executives from MNCs and logistics service providers in Singapore. This approach allows for an in-depth understanding of how SCM and logistics strategies are implemented, the challenges faced, and the innovations adopted to enhance operational efficiency. The qualitative nature of the study enables a rich exploration of experiences and practices, providing nuanced insights that quantitative methods may overlook[8].

Data collection involves conducting interviews with a carefully selected group of participants, ensuring that a diverse range of perspectives is captured. Participants include representatives from various sectors within the MNC ecosystem, including procurement, logistics, and supply chain management. Interview questions are designed to explore key themes such as risk management, technological integration, sustainability, and global market adaptation. The case studies complement the interviews by providing real-world examples of how SCM and logistics strategies are applied in different contexts.

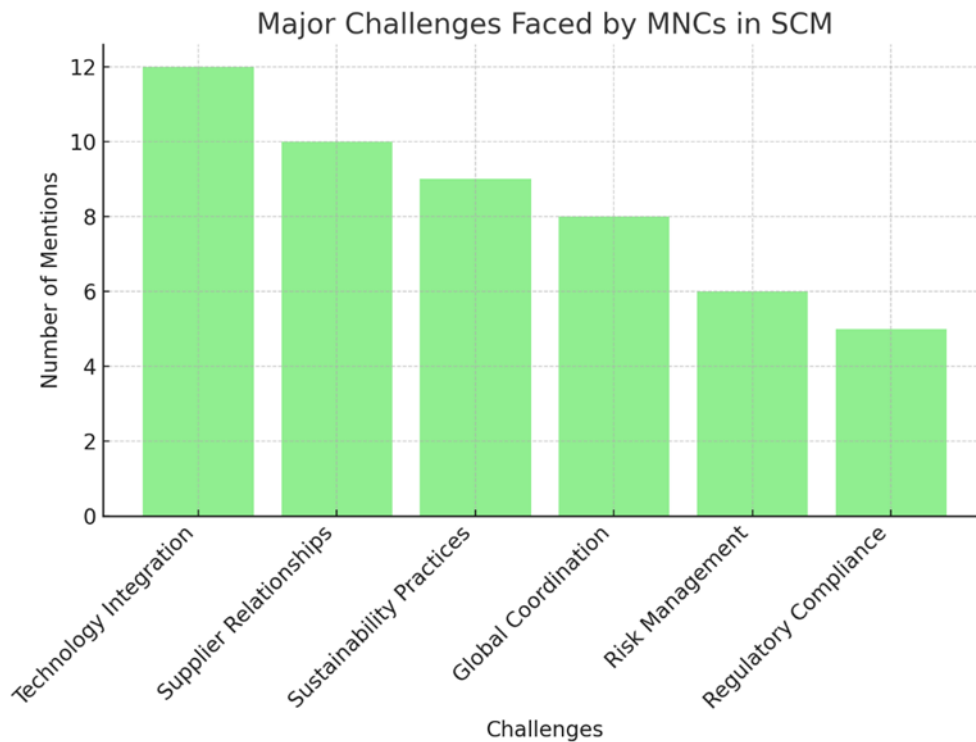
The data is analyzed using thematic analysis, identifying patterns and themes related to SCM and logistics practices. This method allows for a systematic examination of the data, enabling the identification of best practices and emerging trends. The study's methodological approach ensures that the findings are grounded in real-world applications, offering actionable insights for MNCs aiming to improve their SCM and logistics functions. This methodology contributes to the empirical understanding of how effective SCM and logistics strategies drive MNC success.

Results and Discussion

The findings of this study reveal the critical role of supply chain management (SCM) and logistics in the success of multinational corporations (MNCs). Through an analysis of case studies and semi-structured interviews with executives from MNCs operating in Singapore, it became evident that efficient SCM and logistics practices are pivotal in maintaining operational efficiency, mitigating risks, and adapting to shifting market demands. Several themes emerged from the research, including the importance of technology integration, sustainability, and global coordination in SCM and logistics strategies.



One of the key results is the significant impact of technological advancements, such as the Internet of Things (IoT), artificial intelligence (AI), and blockchain, on improving supply chain visibility and decision-making. These technologies enable MNCs to track goods in real-time, optimize routes, and respond swiftly to disruptions, thus enhancing supply chain resilience. However, while technology plays a crucial role, many MNCs face challenges in fully integrating these tools into their existing infrastructure, which highlights a gap in digital readiness across organizations. The findings also underscore the growing importance of sustainability in SCM. Participants noted that environmentally sustainable practices, such as green logistics and ethical sourcing, are increasingly critical in maintaining competitive advantage, especially as regulatory pressures and consumer expectations continue to rise.



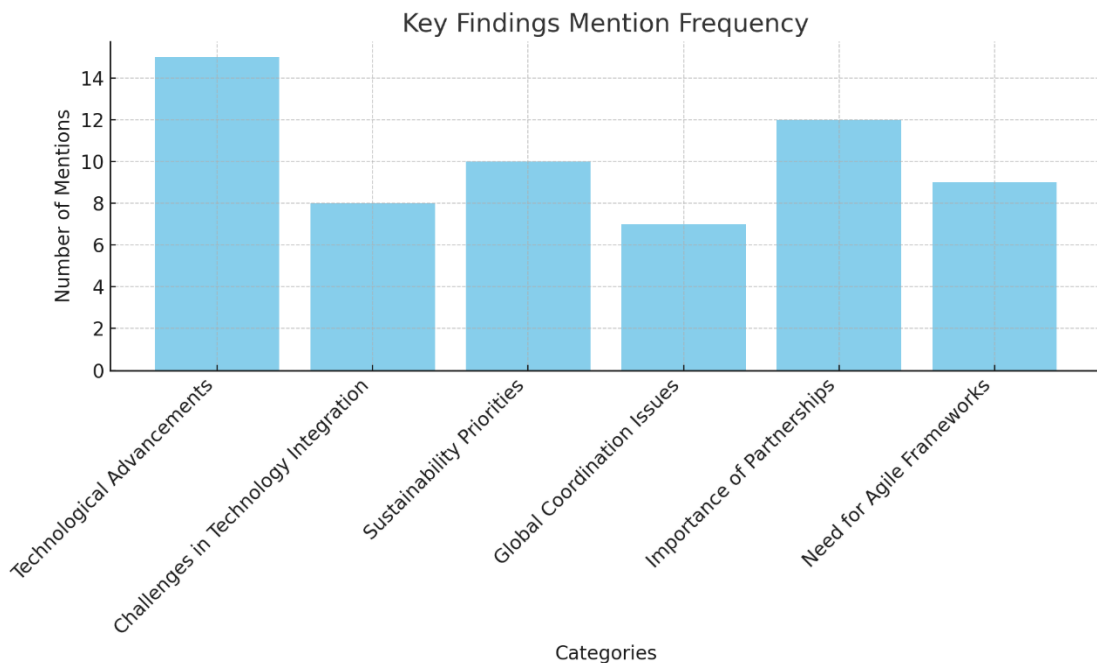
The study further identifies the need for improved global coordination within MNCs' supply chains, particularly in managing suppliers, distributors, and third-party logistics providers (3PLs) across multiple regions. The lack of cohesive strategies often leads to inefficiencies, delays, and increased costs, emphasizing the importance of orchestrating global supply chains effectively. Moreover, while previous studies have highlighted the importance of SCM and logistics in cost reduction, this research demonstrates that these functions are equally important for fostering innovation, enhancing customer satisfaction, and building long-term strategic resilience.

Despite these insights, the study reveals several gaps in both theoretical understanding and practical application. There is limited empirical research on how MNCs can develop agile SCM and logistics frameworks that can adapt to sudden market disruptions, such as geopolitical tensions or pandemics. This study calls for further theoretical exploration into the integration of agile practices within supply chains, particularly how firms can balance efficiency with flexibility. Additionally, the role of smaller logistics providers in contributing to global supply chain resilience remains under-researched, representing an opportunity for future studies.

From a practical perspective, the findings suggest that MNCs must invest in continuous improvement of their SCM and logistics processes, particularly in fostering partnerships with technology providers to enhance digital integration. The study also highlights the need for MNCs to develop stronger relationships with suppliers and 3PLs to ensure consistency in service levels across different markets. By addressing these challenges, MNCs can position themselves to respond more effectively to global market dynamics.



In conclusion, this study contributes to the existing body of knowledge by filling a significant gap in the empirical understanding of the strategic role of SCM and logistics in MNCs. However, further research is needed to deepen the theoretical framework surrounding agile supply chain strategies and to explore how MNCs can more effectively integrate sustainable practices into their logistics operations. The practical implications of this research offer valuable insights for MNCs aiming to optimize their supply chain performance in an increasingly complex global environment.



Conclusion

The findings of this study highlight the pivotal role of supply chain management (SCM) and logistics in the operational success of multinational corporations (MNCs), particularly in the context of technological advancements and sustainability practices. The integration of technologies such as IoT and AI has proven essential in enhancing supply chain visibility and

agility, while sustainability is increasingly prioritized due to regulatory pressures and consumer expectations. However, the study reveals persistent challenges in global coordination and technology adoption, indicating a need for MNCs to develop more cohesive strategies and stronger partnerships with suppliers and third-party logistics providers (3PLs). The implications of this research suggest that MNCs must invest in digital infrastructure and sustainable practices to maintain competitive advantage and operational resilience. Further research should explore the development of agile SCM frameworks capable of adapting to market disruptions and the role of smaller logistics providers in enhancing global supply chain flexibility.

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