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The Effect of Supply Chain Management on Firm Performance of Jordan Food-Based Firms: The Role of Time to Market as a Moderator Variable

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Abstract

Over the last two decades, the market has expanded internationally due to increased market competition. Customers concentrate more on receiving the service or product at the specified location and time for the lowest possible price. Due to these client demands; businesses have begun to understand that they need to increase internal productivity and competitiveness in their supply chains. Organizations must concentrate on their supply chain management processes in order to be more competitive. Certain procedures are essential for supply chain management to be more profitable and competitive. Supply chain management is a complex network of manufacturers, distributors, retailers, customers, and suppliers. Each of these must work together so they can convert raw materials into finished products. The unstable markets require any company to put the customer at the center of its worries, and the supply chain management must now be entirely focused on the latter. This is due to the increasing liberalization of the Jordanian economy and the entry of global corporations. Four key tasks must be completed by a business in order to effectively advertise its goods: supply, production, distribution, and marketing.

Keywords: Supply Chain Management, Firm Performance, Time to Market

Introduction

In today's increasingly dynamic and globally competitive business landscape, Supply Chain Management (SCM) has become a vital strategic function for organizations striving to enhance operational efficiency, responsiveness, and overall firm performance. SCM refers to the strategic coordination and integration of core business activities—ranging from procurement and production to distribution and logistics—across the entire supply chain, with the objective of aligning supply with customer demand in a timely and cost-effective manner (Zulkarnain et al., 2018). Through effective coordination, firms can respond more swiftly to market fluctuations, reduce operational inefficiencies, and improve organizational outcomes.

Moreover, SCM involves close collaboration among suppliers, manufacturers, and distributors to ensure that customer needs are met with precision and consistency. As global supply chains continue to grow in complexity, companies are increasingly required to adopt innovative and integrated SCM practices to maintain resilience and achieve long-term success. Consequently, SCM has evolved beyond a supporting operational role and is now regarded as a critical driver of strategic performance.

Empirical studies have consistently confirmed the positive relationship between SCM practices and firm performance. For instance, Al-Douri (2018) and Kumar and Kushwaha (2018) demonstrated that robust SCM practices can significantly enhance organizational performance across various dimensions. Similarly, research by Khaddam et al. (2020), Palandeng et al. (2018), and Pono et al. (2020) emphasized the role of SCM in achieving improved productivity, customer satisfaction, and business growth.

However, despite the growing body of literature on SCM, the majority of existing studies have focused predominantly on firms in developed economies. As a result, the unique challenges and contextual factors influencing SCM effectiveness in developing countries remain underexplored. This gap is particularly evident in Jordan, where the manufacturing sector—especially the food industryplays a crucial role in economic development. Yet, limited empirical research has been conducted to examine how SCM practices influence performance in this sector (Al-Douri, 2018; Taj, 2025).

Therefore, this study seeks to address this gap by investigating the relationship between SCM practices and firm performance within Jordanian food manufacturing companies. Specifically, it explores how key SCM dimensions such as strategic supplier partnerships, customer relationship management, and information sharing contribute to enhancing operational efficiency and organizational performance (Kumar & Kushwaha, 2018). Additionally, the study aims to provide practical insights for managers to implement more effective SCM strategies that foster resilience, sustainability, and competitiveness in an increasingly volatile market environment (Atnafu et al., 2018; Zulkarnain et al., 2018).

Beyond managerial applications, the findings of this research are expected to inform policy development by identifying the critical SCM elements that influence firm performance. In doing so, the study offers valuable guidance for policymakers in Jordan and other developing economies seeking to strengthen the manufacturing sector and promote sustainable economic growth (Maddeppungeng, 2017; Abuzaid, 2014).

Literature Review and Hypotheses Development

Firm Performance

Firm performance is a critical measure of an organization's success, and it is often assessed through various indicators, such as profitability, market share, sales growth, and operational efficiency. It serves as a crucial dependent variable (DV) in the analysis of business operations and strategies. The literature highlights that effective management of both internal and external processes significantly influences overall performance outcomes (Venkatraman & Ramanujam, 1986).

In the context of food-based firms in Jordan, firm performance can be impacted by several factors, including operational efficiency, customer satisfaction, and responsiveness to market demands. The alignment of these factors enables businesses to achieve competitive positioning within a challenging market environment. As emphasized by numerous studies, achieving superior firm performance is often linked to the effective implementation of strategic practices (Kaplan & Norton, 1996).

Moreover, firm performance can be assessed through various dimensions, such as financial performance (cost management and profitability), operational performance (efficiency and quality), and customer-related performance (satisfaction and loyalty). Understanding these dimensions is essential, as it allows firms to formulate strategies that are aligned with both their objectives and the ever-changing market needs.

Underpinning Theories

Resource-Based Theory (RBT): The Resource-Based Theory posits that a firm's competitive advantage stems from its possession and effective use of valuable, rare, and inimitable resources. In the context of the study, resources such as human capital, supplier partnerships, and information sharing are identified as critical elements that can enhance the performance of food manufacturing firms. RBT emphasizes the need for firms to cultivate specialized capabilities that enable them to leverage these resources effectively, thereby achieving superior performance in a competitive marketplace (Taj, 2025, p. 10). This perspective is particularly relevant in supply chain management, where the integration and optimization of resources can lead to significant operational improvements and differentiation.

Knowledge-Based Theory (KBT): The Knowledge-Based Theory extends the principles of Resource-Based Theory by highlighting the strategic importance of knowledge as an organizational asset. Knowledge, both explicit and tacit, serves as a cornerstone for competitive advantage, as it is inherently challenging for competitors to replicate. The study suggests that firms that are adept at managing and utilizing knowledge will likely experience enhanced decision-making and operational efficiencies (Taj, 2025, p. 11). By fostering a culture of knowledge sharing and continuous learning within the supply chain, firms can improve their responsiveness to market changes and foster innovation, leading to better performance outcomes.

Both theories underscore the importance of strategic resource management and knowledge utilization in achieving and sustaining competitive advantage in the food manufacturing sector. By integrating insights from RBT and KBT, the study aims to deepen the understanding of how supply chain management practices can influence firm performance in Jordan's food industry landscape.

Justification for Integrating (RBT) and (KBT)

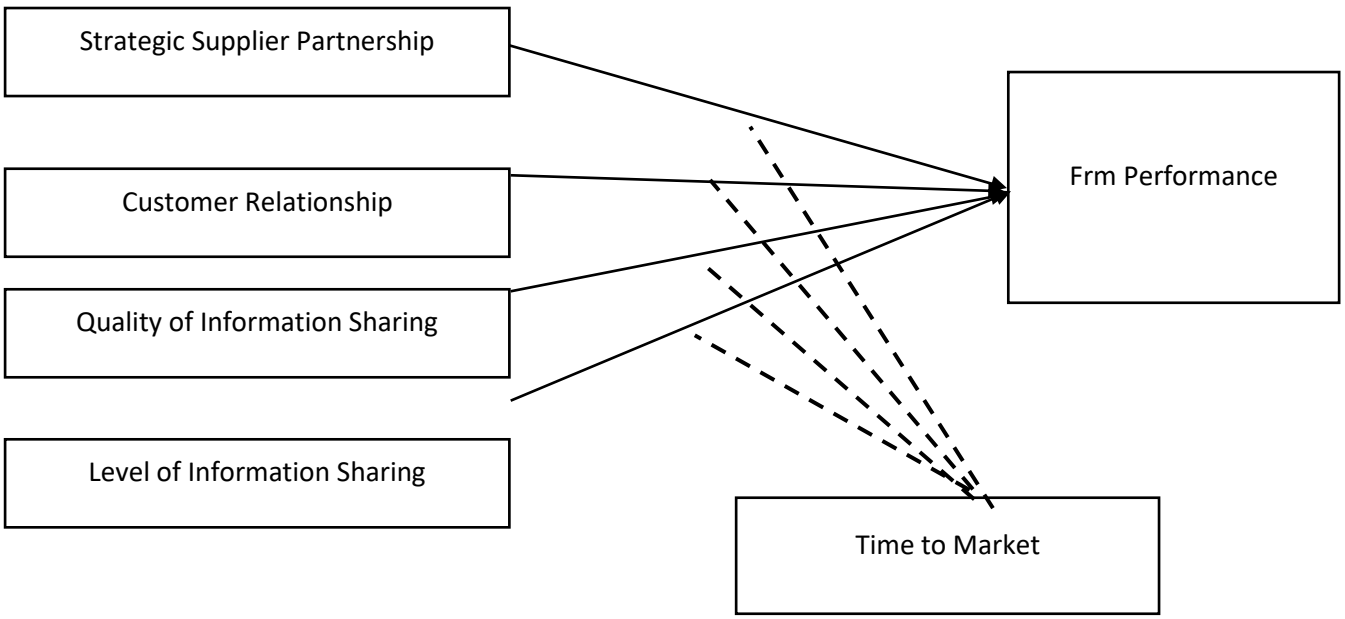
Integrating Resource-Based Theory (RBT) and Knowledge-Based Theory (KBT) is essential for providing a comprehensive framework to understand the interplay between supply chain management, competitive advantage, and firm performance. RBT emphasizes the significance of valuable and unique resources that firms must possess to gain a competitive edge, while KBT highlights the critical role of knowledge as a strategic resource

that enhances organizational capabilities and decision-making. By combining these theories, organizations can better comprehend how effective resource management and knowledge utilization work in tandem to improve supply chain practices and foster innovation. This integrated perspective not only elucidates the pathways through which firms can achieve superior performance but also underscores the necessity of continuously developing competencies that leverage both tangible resources and intangible knowledge assets to sustain competitive advantage in dynamic market environments.

Hypotheses Development

The development of hypotheses on firm performance is informed by Resource-Based Theory (RBT) and Knowledge-Based Theory (KBT). Strategic Supplier Partnership (H1) is expected to improve firm performance by enhancing supply chain efficiency and product quality. Customer Relationship (H2) is proposed to positively impact firm performance by fostering customer loyalty and satisfaction. Additionally, Quality of Information Sharing (H3) and Level of Information Sharing (H4) are hypothesized to improve coordination and decision-making within the supply chain, leading to enhanced firm performance. Furthermore, Time to Market (TTM) is suggested to moderate the relationship between these factors and firm performance, with faster product delivery amplifying the effects of strategic supplier partnerships (H5), customer relationships (H6), and (quality and level) information sharing (H7 & H8) on firm performance.

Research Framework



H1: Strategic Supplier Partnership has a significant positive effect on Firm Performance in food manufacturing firms in Jordan.

Strategic supplier partnerships are integral to enhancing supply chain efficiency and firm performance. By fostering effective collaboration with suppliers, firms can improve operational efficiency, reduce costs, and elevate product quality. Establishing robust and long-term relationships with suppliers allows food manufacturing firms in Jordan to access

superior resources and capabilities, which subsequently contribute to enhanced firm performance.

H2: Customer Relationship has a significant positive effect on Firm Performance in food manufacturing firms in Jordan.

Customer relationships are vital for business success, as they directly influence customer loyalty and satisfaction. A well-executed customer relationship management strategy enables firms to gain a deeper understanding of customer needs, thereby fostering greater satisfaction and loyalty. In food manufacturing firms in Jordan, the ability to maintain strong customer relationships can positively impact sales growth and market share, thus enhancing overall firm performance.

H3: Quality of Information Sharing has a significant positive effect on Firm Performance in food manufacturing firms in Jordan.

The quality of information sharing within the supply chain is crucial for informed decision making and operational efficiency. Accurate, timely, and transparent information exchange among supply chain partners enhances coordination, reduces delays, and improves inventory management. In the case of food manufacturing firms in Jordan, high-quality information sharing can streamline production processes, improve responsiveness to customer demands, and ultimately bolster firm performance.

H4: Level of Information Sharing has a significant positive effect on Firm Performance in food manufacturing firms in Jordan.

The level of information sharing refers to the extent of data exchange between firms and their supply chain partners. Higher levels of transparency and communication can lead to more efficient operations and foster stronger relationships within the supply chain. Within food manufacturing firms in Jordan, increased information sharing contributes to improved decision-making, optimized resource allocation, and enhanced firm performance by ensuring alignment among all stakeholders with the firm's objectives.

H5: Time to Market moderates the relationship between Strategic Supplier Partnership and Firm Performance.

Time to Market (TTM) is a crucial factor in industries like food manufacturing, where speed and responsiveness are essential for maintaining competitiveness. Strategic supplier partnerships are instrumental in reducing lead times and streamlining production processes, thus facilitating faster product delivery. The moderating role of TTM suggests that the impact of supplier partnerships on firm performance is contingent upon the time it takes for products to reach the market. This hypothesis asserts that firms with shorter TTM will experience a stronger positive effect on performance from their supplier partnerships.

H6: Time to Market moderates the relationship between Customer Relationship and Firm Performance.

Customer relationships are key to retaining a loyal customer base and driving business success. However, the strength of this relationship is influenced by how quickly a firm can introduce new products to the market. A shorter Time to Market enables firms to respond rapidly to changing customer preferences, thereby making customer relationships more effective. This hypothesis posits that firms with faster TTM will witness a stronger positive effect of customer relationships on their overall performance.

H7: Time to Market moderates the relationship between Quality of Information Sharing and Firm Performance.

High-quality information sharing plays a pivotal role in enhancing operational efficiency and decision-making within the supply chain. However, the effectiveness of information sharing in driving firm performance may be contingent on the speed with which products reach the market. This hypothesis suggests that the impact of information sharing on firm performance will be more pronounced for firms with shorter TTM, as these firms can act more swiftly on the information shared, aligning better with market demands.

H8: Time to Market moderates the relationship between Level of Information Sharing and Firm Performance.

The level of information sharing is critical for achieving supply chain efficiency and enhancing firm performance. Nonetheless, the influence of this practice on firm performance may vary depending on the firm's ability to quickly respond to market conditions. A shorter Time to Market amplifies the benefits of high levels of information sharing, leading to more agile and efficient operations. This hypothesis asserts that firms that practice extensive information sharing and possess a quicker TTM will experience stronger performance outcomes.

Methodology

The research methodology follows a structured quantitative approach to explore the relationship between supply chain management practices and firm performance in Jordan's food sector. The study targets all registered food production firms in Jordan, with a sample of 384 firms selected from a total population of 2,823. The unit of analysis includes leadership figures such as CEOs, heads, and managers, who provide insights into the firm's supply chain practices and performance. Data will be collected through surveys addressing supply chain management, competitive advantages, and firm performance. Time to Market will be considered as a moderator to examine its influence on the relationship between supply chain practices and firm performance. This approach ensures the validity and reliability of the findings, providing a comprehensive understanding of the dynamics in the food sector.

Contributions and Conclusions

Contributions

1. **Theoretical Integration**: This paper integrates Resource-Based Theory (RBT) and Knowledge-Based Theory (KBT) to establish a comprehensive framework for understanding how supply chain management practices influence competitive advantage and firm performance. Through this theoretical integration, the study clarifies how firms

can leverage unique resources and knowledge to improve operational efficiency and strategically position within the food industry.

2. **Contextual Relevance**: The research focuses on the Jordanian food industry, shedding light on the specific challenges and dynamics that firms face in this context. By investigating the role of supply chain management in a developing market like Jordan, the study provides valuable insights into how local factors shape operational practices and performance, thereby increasing the contextual relevance of its findings.
3. **Policy Implications**: Based on the findings, the study suggests that policymakers should create an environment conducive to the adoption of effective supply chain management practices. This may involve supporting infrastructure development, fostering strategic partnerships, and promoting education and training in supply chain management to enhance the competitiveness of Jordanian food firms.
4. **Practice Implications**: For practitioners, the study emphasizes the significance of implementing robust supply chain management strategies, particularly focusing on strategic supplier partnerships, quality information sharing, and customer relationships. By strengthening these practices, firms can improve their Time to Market and overall performance, which is vital for their long-term sustainability in a competitive market.

Conclusions

The conclusions drawn in this paper highlight the interconnected relationships between supply chain management practices, time to market and firm performance within the food industry in Jordan. This study will include the key findings of:

Significance of Supply Chain Management: The study demonstrates that effective supply chain management practices specifically strategic supplier partnerships, customer relationships, and quality of information sharing are essential for improving operational efficiency and securing a competitive advantage in the food industry.

Time to Market as a Moderator: This research examines how "Time to Market" influences the relationship between supply chain management and firm performance. It will investigates whether a quicker time to market enhances or constrains the effectiveness of supply chain strategies in improving performance outcomes for firms within the Jordanian food sector.

Implications for Firm Performance: The study emphasizes that food industry firms in Jordan can significantly improve their performance metrics by focusing on and enhancing their supply chain management practices. These practices are crucial for achieving better reliability, flexibility, cost management, and asset management.

Need for Further Exploration: The research suggests that certain elements, such as the level of information sharing, warrant further investigation to comprehensively understand their impact on firm performance. While positive relationships were generally observed, some dimensions present opportunities for deeper analysis.

Encouragement for Future Research: The paper encourages further exploration of the interactions between supply chain management, competitive advantage, and firm performance across various contexts. This ongoing research is essential for refining strategies in an industry that is rapidly evolving.

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