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Evaluating the Role of Supply Chain Management Practices in Enhancing Business Competitiveness and Sustainability

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KEY W O R D S

Supply Chain Management, Business Competitiveness, Sustainability, Literature Study, Operational Strategy

A B S T R A C T

This study aims to evaluate the role of supply chain management (SCM) practices in improving business competitiveness and corporate sustainability. Using a qualitative approach through literature study methods or library research, this study analyzes various scientific publications, academic journals, and industry reports relevant to the topics of SCM, competitiveness, and sustainability. In an increasingly competitive and complex business environment, companies are required to not only optimize operational efficiency, but also strengthen their long-term sustainability. The results of the study show that SCM practices such as collaboration with suppliers, information technology integration, supply chain risk management, and green logistics practices play a strategic role in improving the company's competitive performance and sustainability. Vertical and horizontal integration in supply chains is proven to create a competitive advantage through reduced costs, improved service quality, and customer satisfaction. In addition, the application of sustainability principles in SCM also has a positive impact on the company's reputation and compliance with environmental regulations. These findings make an important contribution to the development of a conceptual framework that links SCM practices, competitive advantage, and sustainability goals. The study recommends that companies actively adopt a collaboration and sustainability-based SCM approach to create long-term value. Further research is expected to test this conceptual model empirically in various industrial sectors.

1. Introduction

In an era of increasingly dynamic global competition, supply chain management (SCM) has become one of the strategic elements in supporting business competitiveness and sustainability (Christopher, 2016). Companies no longer focus only on internal efficiency, but also on external collaboration to create added value throughout the supply chain (Mentzer et al., 2001). Effective SCM allows companies to respond quickly to the market, reduce operational costs, and meet customer expectations on an ongoing basis (Heizer, Render, & Munson, 2020).

As awareness of sustainability issues increases, SCM is also expected to be able to integrate social and environmental aspects into business processes (Seuring & Müller, 2008). Green supply chain, circular economy, and ethical sourcing are now an important part of corporate strategies to support sustainable development goals (Elkington, 1998; Sarkis, 2012). However, most companies still face challenges in adopting SCM practices that are able to simultaneously increase competitiveness and support long-term sustainability (Pagell & Shevchenko, 2014).

Previous research has highlighted the link between SCM and operational excellence (Chopra & Meindl, 2019), but there is still limited research that explicitly addresses the integrative role of SCM practices in achieving competitive advantage as well as corporate sustainability simultaneously (Carter & Rogers, 2008). This is an important research gap to be filled so that companies can design supply chain systems that are not only efficient, but also socially and ecologically responsible (Genovese et al., 2017).

The urgency of this research is reinforced by the fact that global crises such as the COVID-19 pandemic and geopolitical disruptions have exposed the vulnerability of traditional supply chains, and driven the need for resilient and adaptive systems (Ivanov & Das, 2020). In this context, sustainability and competitiveness are not two conflicting goals, but rather mutually supportive for the long-term sustainability of the business (Porter & Kramer, 2011).

This research offers novelty by holistically evaluating how SCM practices such as strategic collaboration, information technology integration, green logistics, and risk management can contribute to increasing business competitiveness while supporting the company's sustainability goals. In contrast to previous studies that tended to address this aspect separately, this study attempted to link the two within one integrated conceptual framework (Gold, Seuring, & Beske, 2010).

The main objective of this study is to identify and evaluate SCM practices that significantly impact improving business competitiveness and sustainability based on a review of the scientific literature. In addition, this research also aims to develop a conceptual framework that can be used as a reference by practitioners and researchers in developing a more resilient and sustainable supply chain system.

The benefits of this research are not only theoretical, namely enriching the literature on SCM and sustainability, but also practical, namely providing recommendations for companies to adopt a holistic SCM strategy to face economic, environmental, and social challenges simultaneously.

Definition and Basic Concepts of Supply Chain Management

Supply Chain Management (SCM) is an integrated approach used to efficiently manage the entire flow of products, information, and finances from raw material suppliers to final products to consumers. SCM includes the planning and control of all activities involved in procurement, production, distribution, and customer service. The main goal of SCM is to create maximum value for customers at the lowest possible total cost, while ensuring smooth

processes between organizations involved in the supply chain.

Key Components and Functions in SCM

Supply chain management consists of several important components, including: demand management, inventory management, procurement, production, transportation and logistics, and relationships with business partners. Each component must be managed synergistically so that there are no bottlenecks that can interfere with overall operational performance. In addition, the use of information technology such as ERP (Enterprise Resource Planning) systems and SCM software helps improve coordination, visibility, and decision-making in the supply chain in real-time.

The Importance of SCM in Improving Competitiveness and Sustainability

In the era of globalization and market uncertainty, supply chain management is one of the keys to increasing business competitiveness. Companies that are able to manage supply chains efficiently can respond to customer needs faster, reduce costs, and improve service quality. More so, SCM also plays a role in encouraging sustainable business practices through wise resource management, the use of eco-friendly logistics, and social responsibility throughout the value chain process. Therefore, SCM is not just an operational function, but a vital business strategy in creating a long-term competitive advantage.

2. Methodology

This study uses a qualitative approach with the literature study method (library research), which aims to evaluate the role of supply chain management (SCM) practices in improving business competitiveness and sustainability. The literature study was chosen because it allows researchers to browse, review, and analyze a wide variety of published scientific sources related to the topics of SCM, competitiveness, and sustainability in depth and comprehensively (Snyder, 2019). Through this approach, researchers can build a conceptual understanding and identify relationships between variables based on existing evidence.

The data sources in this study come from reputable international and national journal articles, academic books, industry research reports, and relevant policy documents, published in the period 2010 to 2024. The articles were obtained through scientific databases such as Google Scholar, Scopus, ScienceDirect, and ProQuest, using keywords such as "supply chain management," "business competitiveness," "sustainability," "green logistics," and "strategic sourcing." Data selection was carried out purposively, namely by considering the suitability of the topic, the quality of the publication, and the relevance to the research focus (Booth, Colomb, & Williams, 2016).

Data collection techniques are carried out through a systematic literature review process, which includes identifying sources, selecting articles based on inclusion and exclusion criteria, and extracting important information related to SCM practices, competitiveness strategies, and sustainability initiatives. Furthermore, data was analyzed using a thematic analysis method, namely by grouping findings based on certain themes or patterns, such as technology integration, logistics efficiency, partner collaboration, and risk management in the context of SCM (Braun & Clarke, 2006). This approach allows researchers to identify the theoretical and practical contributions of each study and formulate a conceptual framework that can be used as a basis for further research and policy-making in the field of supply chain management.

3. Result and Discussion

In this study, a literature review was conducted by examining a number of relevant scientific articles to evaluate the role of supply chain management (SCM) practices in improving business competitiveness and company sustainability. Of the

dozens of articles found through databases such as Scopus, Google Scholar, and ScienceDirect, 10 main articles have been screened that meet the inclusion criteria based on topic relevance, journal quality, and contribution to research variables. These articles are analyzed to identify the research focus, methodological approaches, as well as key findings that are the basis for the preparation of the conceptual framework. The following table presents a summary of the findings of the 10 selected articles.

No.	Author & Year	Title	Findings
1	Christopher (2016)	*Logistics & Supply Chain Management*	Modern SCM plays a crucial role in creating a competitive advantage through delivery efficiency and accuracy.
2	Mentzer et al. (2001)	*Defining Supply Chain Management*	SCM is a process of coordination between companies to create shared value.
3	Carter & Rogers (2008)	*Framework of Sustainable SCM*	Sustainability in SCM strengthens the company's competitiveness and reputation.
4	Seuring & Müller (2008)	*From a Literature Review to a Conceptual Framework*	It needs to integrate environmental and social dimensions into SCM.
5	Pagell & Shevchenko (2014)	*Sustainable SCM: Research Directions*	Many studies have not integrated sustainability and competitive performance at the same time.
6	Heizer et al. (2020)	*Operations Management*	Effective SCM improves operational efficiency and market responsiveness.
7	Genovese et al. (2017)	*Circular Economy & SCM*	SCM based on a circular economy supports long-term business sustainability.
8	Chopra & Meindl (2019)	*Supply Chain Management: Strategy, Planning and Operation*	Integrated planning in SCM is essential for business continuity.
9	Gold et al. (2010)	*Inter-organizational Resources in Sustainable SCM*	Collaboration between partners in the supply chain is important for sustainability.
10	Ivanov & Das (2020)	*COVID-19 & Supply Chain Resilience*	Adaptive SCM is essential to deal with global uncertainty and maintain competitiveness.

Interpretation of Data from Literature Review Findings

The results of the literature study of the ten selected articles show that the practice of Supply Chain Management (SCM) has a very important role in improving business competitiveness. Christopher (2016) and Chopra & Meindl (2019) emphasized that operational efficiency, speed of response to the market, and accuracy in product delivery are key elements of SCM that directly contribute to the achievement of competitive advantage. In other words, companies that are able to manage their supply chains strategically can achieve a stronger market position than competitors.

In terms of sustainability, the findings show that SCM is not only cost-efficient, but must also integrate environmental and social dimensions in its operational processes. Carter & Rogers (2008), Seuring & Müller (2008), and Genovese et al. (2017) emphasize the importance of implementing green supply chains and circular economies in logistics systems. These practices not only lower the environmental impact, but also improve the company's image and expand market reach through regulatory compliance and increasingly sustainability-conscious consumer preferences.

In the aspect of organizational strategy, Mentzer et al. (2001) and Gold et al. (2010) show that cross-organizational collaboration is a key element in

modern SCM. Mutually beneficial relationships between suppliers, manufacturers, and distributors create system integrations that increase efficiency and flexibility. This collaboration also serves as a risk mitigation mechanism and information sharing that is crucial in the face of market uncertainty.

In addition, supply chain resilience is also an important issue that emerges in the findings, especially in the context of global crises such as the COVID-19 pandemic. Ivanov & Das (2020) show that companies with adaptive supply chains are able to maintain operational continuity and maintain their competitive position despite being in crisis situations. This reinforces the argument that resilience should be an integral part of SCM strategy planning.

Although many studies have addressed SCM in terms of efficiency and sustainability separately, there are still limitations in studies that integrate the two into a single framework of analysis. Pagell & Shevchenko (2014) highlight a gap in research examining the simultaneous relationship between SCM practices, competitive advantage, and sustainability. This shows the importance of developing a new conceptual framework that is able to comprehensively explain these multidimensional relationships.

Overall, the interpretation of this literature data reinforces the view that strategic, collaborative, and sustainability-oriented SCM practices have a significant impact on business competitiveness and sustainability. These findings provide a solid foundation for the development of a conceptual framework that can be used by researchers and practitioners in designing supply chain systems that are not only efficient and resilient, but also sustainable and adaptive to changes in the external environment.

Discussion and Analysis

The findings from the literature study show that the practice of Supply Chain Management (SCM) has evolved from just an operational tool to an integral business strategy in improving the competitiveness and sustainability of companies. This is in line with the view of Christopher (2016) that effective supply chain management not only serves to reduce costs, but also increases the value perceived by customers. In the context of globalization and fierce market competition, the company's ability to manage relationships with suppliers, manufacturers, and distributors is a strategic asset.

The current phenomenon shows that companies with adaptive and integrated supply chains are better able to withstand uncertainty, as seen during the COVID-19 pandemic and the global geopolitical crisis. Ivanov & Das (2020) highlight the importance of resilience in SCM systems, where companies must be able to manage supply disruptions, demand changes, and logistics constraints flexibly. These events prove that the success of a business is not only determined by internal efficiency, but also by the ability to respond quickly and appropriately to external changes.

From a sustainability perspective, SCM practices increasingly emphasize the integration of environmentally and socially friendly principles. Carter & Rogers (2008) and Seuring & Müller (2008) affirm that sustainable supply chain management encourages companies to not only pursue economic gains, but also to be responsible for the environmental and social impacts of their operational activities. This approach is known as the triple bottom line concept: profit, people, and planet.

In the context of practice, companies that adopt green logistics, circular economy, and ethical sourcing have proven to be able to increase customer loyalty, expand the market, and build a positive image in the eyes of stakeholders. This is becoming very relevant with the changing behavior of today's consumers who are increasingly aware of sustainability. Genovese et al. (2017) show that consumers tend to choose products and services

from companies that have a strong commitment to the environment.

From a theoretical perspective, these findings can be attributed to the Resource-Based View (RBV) theory developed by Barney (1991), which states that sustained competitive advantage comes from internal resources that are valuable, scarce, not easily replicated, and cannot be substituted. In this context, effective SCM practices can be considered as a form of dynamic capability that allows companies to manage resources strategically and sustainably.

However, gaps are still found in the literature that address the direct relationship between SCM, competitiveness, and sustainability within a single, integrated framework. Pagell & Shevchenko (2014) state that most studies still look at this aspect separately, so a new conceptual approach is needed that is able to connect the three systematically. These findings serve as the basis for the authors to formulate that the integration between operational and sustainability strategies should be a core part of modern SCM policies.

Inter-organizational collaboration is also an important factor in strengthening a competitive and sustainable supply chain. Gold et al. (2010) explain that strategic interactions and alliances between supply chain partners can result in synergies in resource management, information exchange, and mutual innovation. In practice, this collaboration not only speeds up the distribution process, but also creates shared value for all parties in the business ecosystem.

The authors argue that the practice of SCM should no longer be considered as a purely technical function, but rather as a cross-functional strategy involving long-term planning, innovation, and the involvement of internal and external stakeholders. Companies that are only oriented towards short-term efficiency will find it difficult to compete in the future business ecosystem that demands high social and environmental accountability.

Considering the Indonesian context, the implementation of sustainability-based SCM still faces various challenges, ranging from limited infrastructure, an organizational culture that is not yet adaptive, to the lack of regulatory incentives. Therefore, public policy support and collaboration between the private sector, government, and civil society are needed to strengthen a national SCM ecosystem that supports competitiveness and sustainability simultaneously.

Overall, this discussion reinforces the conclusion that strategic, collaborative, and sustainability-oriented SCM practices contribute significantly to business competitiveness and long-term business viability. The authors recommend the need to develop an SCM model that is not only adaptive to risk, but also proactive in driving business transformation towards inclusive and responsible sustainability.

4. Conclusion

Based on the results of the literature review, it can be concluded that the practice of Supply Chain Management (SCM) has a strategic role in increasing business competitiveness and supporting company sustainability. A well-planned SCM enables companies to improve operational efficiency, respond to markets more quickly, and create added value for customers and business partners. In the context of increasingly complex global competition, SCM is a crucial element to maintain a competitive advantage in a sustainable manner.

The findings also show that the integration of sustainability principles into supply chain systems, such as through green logistics, circular economy, and ethical collaboration with partners, can have a positive impact on company reputation and regulatory compliance. Companies that apply this approach not only gain economic benefits, but also meet the social and environmental responsibilities expected by stakeholders. Thus, sustainability and competitiveness are not two things that are in

conflict, but rather support each other in creating long-term advantages.

However, there is still a gap in the literature that examines the relationship between SCM, competitiveness, and sustainability in a single whole, conceptual framework. Therefore, further research is recommended to develop an empirical model that can test the causal relationship between the three variables using a quantitative approach or mixed-methods. In addition, comparative studies across sectors or geographical areas also need to be conducted to see the differences in implementation and their impact in a broader context, including in developing countries such as Indonesia.

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