

The Role of Supply Chain Management in Enhancing the Competitiveness of Local Products

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Submitted : 10-01-2023, Accepted : 11-02-2023, Published : 10-03-2023

Abstract

This study aims to examine the role of supply chain management in enhancing the competitiveness of local products by using a qualitative approach and a case study of a micro, small, and medium enterprise (MSME) in Indonesia. The main focus of the research is how supply chain management strategies—from raw material procurement, production, and distribution, to partnerships—can influence the success of local products in competing in both domestic and international markets. Data were collected through in-depth interviews, direct observation, and documentation involving business actors and related stakeholders. Data analysis was conducted using a descriptive-qualitative method, referring to theories of supply chain management and competitiveness. The results show that optimally implemented supply chain management has a significant impact on improving the competitiveness of local products, especially in the MSME sector. The findings indicate that operational efficiency, improved product quality, quick market adaptability, and strong strategic partnerships are key components derived from effective supply chain management. However, the study also finds that MSMEs continue to face several challenges, such as limitations in technology, funding, human resources, and risk management capabilities. Therefore, strengthening supply chain management capacity among MSMEs is a crucial agenda that requires serious attention from the government, business actors, and other stakeholders to ensure sustainable growth and broader competitiveness of MSMEs.

Keywords: Supply Chain Management, Competitiveness, Local Products, Case Study, MSMEs.

Introduction

In the era of globalization and free trade, product competition no longer occurs only at the national level but also on an international scale. Local products that previously circulated only in domestic markets must now be able to compete with imported products that enter with competitive quality and prices (Kristiyanri & Rahmasari, 2015). This situation demands business actors, especially micro, small, and medium enterprises (MSMEs), to continuously improve their efficiency and product quality to remain competitive in a highly competitive market (Riyanti & Nisa, 2024).

Micro, Small, and Medium Enterprises (MSMEs) play a strategic role in Indonesia's economy. Accounting for around 99% of all business units in the country, MSMEs are the main drivers of national economic activity (Munthe et al., 2023). The importance of MSMEs is reflected in their significant contribution to Gross Domestic Product (GDP), as well as their

reach across various sectors, from trade and services to the creative industries. MSMEs also serve as a means of equitable economic distribution, being spread across nearly all regions of Indonesia, including remote and rural areas. Thus, MSMEs not only serve as the backbone of the national economy but also as instruments for equitable economic development (Pudyastiwi & Djatmiko, 2020).

Furthermore, MSMEs play a vital role in absorbing labor and reducing the unemployment rate in Indonesia. Data show that about 97% of the national workforce is employed in the MSME sector. This high labor absorption rate makes MSMEs the largest provider of employment opportunities, particularly for individuals with diverse education and skill levels (Tasyim et al., 2022). In addition, the presence of MSMEs helps increase household income, strengthen local economies, and build community-based economic resilience. Therefore, the sustainable development of MSMEs is essential, not only to maintain economic stability but also to create inclusive and equitable growth (Novitasari, 2022).

One strategic aspect that can contribute to enhancing the competitiveness of local products is supply chain management. The supply chain includes all activities from raw material procurement, production processes, distribution management, to customer service (Anwar, 2013). Effective supply chain management can lead to cost efficiency, faster distribution, and improved product quality, which in turn has a direct impact on the competitiveness of a product in the market (Leppe & Karuntu, 2019).

However, on the ground, many local business actors, particularly in the MSME sector, still face various challenges in managing their supply chains (Nainggolan, 2018). These challenges include limited access to reliable suppliers, inadequate information technology for logistics management, and weak coordination among elements in the supply chain (Kurniawan & Kusumawardhani, 2017). These conditions lead to inefficiencies and reduce the

competitiveness of local products compared to foreign products with more established supply chain systems.

Research on supply chain management has grown rapidly over the past two decades, especially regarding its strategic role in improving organizational efficiency and competitiveness. Several previous studies have highlighted that good supply chain management can affect company performance, including aspects of quality, cost, and market responsiveness. For instance, Syamil et al. (2023) state that an integrated and responsive supply chain is a key element in creating a competitive advantage in dynamic markets.

In the context of local MSMEs, a study by Nasution (2017) shows that one of the reasons for the weak competitiveness of local products is the suboptimal integration within the supply chain, such as unstable relationships with suppliers, inefficient distribution, and the underutilization of digital technology. Similar findings were noted by Cahyadi (2021), who revealed that MSMEs in Indonesia still face major challenges in terms of access to raw materials, limited working capital, and a lack of understanding regarding the importance of collaboration among supply chain actors.

On the other hand, a study by Sinuhaji & Ibrahim (2024) emphasizes the importance of a collaborative approach in supply chain management, especially for small enterprises with limited resources. Strategic collaboration with supply chain partners can create added value, increase efficiency, and accelerate adaptation to market changes. Meanwhile, research by Harto et al. (2007) shows that integrating supply chain management with business strategy can strengthen long-term competitive positioning.

Although many studies have discussed supply chain management, most of them still focus on large companies and the national or global industrial sectors. Research specifically highlighting the link between supply chain management and the enhancement of local product competitiveness—particularly in the context of MSMEs in developing countries like

Indonesia—remains relatively limited. Yet, local products have great potential to drive regional economies and support national economic self-sufficiency. Thus, this study aims to fill that research gap by offering a contextual approach to the role of supply chain management in enhancing the competitiveness of local products, particularly within a qualitative case study framework. This research not only seeks to identify challenges but also to explore best practices that local business actors can adopt to become more competitive in the modern market.

Methods

This study employs a qualitative approach with a descriptive method aimed at providing an in-depth understanding of how supply chain management is implemented by MSME actors to enhance the competitiveness of local products. The qualitative approach was chosen because it can reveal the complex and contextual realities of supply chain management processes from upstream to downstream, including the roles of suppliers, producers, distributors, and end consumers. Data collection was carried out through in-depth interviews with informants selected purposively, namely MSME actors, raw material suppliers, and relevant government or MSME-supporting institutions (Sugiyono, 2011). In addition to interviews, the study also utilizes secondary data such as documents, reports, and data from relevant institutions to complement and strengthen the analysis. Data analysis was conducted thematically, by grouping information based on key themes that emerged from the interviews and documentation, such as supply integration, distribution efficiency, and collaboration among actors. To maintain data validity, the researcher used triangulation techniques by comparing various sources of information obtained. The research location was selected in an area with a concentration of leading MSMEs, considering the local economic potential and the level of MSME involvement in the supply chain. Through this method, the study is expected to provide

a comprehensive and contextual understanding of strategies to improve the competitiveness of local products through the optimization of supply chain management.

Results and Discussion

The Role of Supply Chain Management in Enhancing the Competitiveness of Local Products

Effective supply chain management is a crucial foundation for enhancing product competitiveness, especially in the context of micro, small, and medium enterprises (MSMEs). By managing the flow of goods, information, and finances in an integrated manner from upstream to downstream, MSMEs can improve operational efficiency, reduce production costs, and minimize lead time in product distribution (Malik et al., 2024). This efficiency directly impacts increased productivity and the ability to meet market demand in a timely manner. Furthermore, good supply chain management enables MSMEs to build more stable partnerships with suppliers and distributors, ensuring a steady supply of raw materials and minimizing the risk of production delays.

Moreover, optimal supply chain management contributes to improving product quality. With better access to high-quality raw materials and accurate market information, MSMEs can tailor their products to meet consumer needs and market standards (Yahya et al., 2023). In the face of increasingly intense global competition, the ability to produce high-quality products at competitive prices becomes a highly valuable asset. Therefore, strengthening managerial aspects within the supply chain not only enhances internal efficiency but also strategically positions MSMEs in both local and international markets.

Below are several ways supply chain management can enhance the competitiveness of local products:

1. Improving Operational Efficiency through:

- Optimizing Workflow

By optimizing workflow in production, storage, and distribution processes, supply chain management helps business actors reduce waiting time and speed up product delivery to market. This enables operations to run more efficiently, minimizes waste, and reduces production and logistics costs. Ultimately, this efficiency increases the competitiveness of local products by ensuring availability on time, in good condition, and at more competitive market prices.

- Reducing Overhead Costs

Effective supply chain management plays a crucial role in reducing company overhead through efficient management of logistics elements such as transportation, storage, and administration. By designing more efficient distribution routes and using information technology to monitor goods movement in real time, companies can avoid unnecessary expenses from stockpiling, delivery delays, or duplicated administrative processes. This not only reduces operational costs but also increases profitability and the competitiveness of local products. Lower costs also allow businesses to offer more competitive prices without sacrificing product quality—a strategic advantage in increasingly competitive markets.

- Increasing Productivity

Applying appropriate technology in supply chain management enables the optimization of production and distribution processes, directly boosting work productivity. Technologies such as logistics information systems, automation tools, and digital tracking help accelerate workflows, minimize human error, and reduce wasted time and resources. With more efficient and integrated processes, businesses can produce more output in less time and with consistent quality. This not only strengthens the market position of local products but also helps build more resilient and adaptive business systems in response to market demand dynamics.

2. Improving Product Quality through:

- Sourcing High-Quality Suppliers

Good supply chain management enables companies to establish partnerships with reliable suppliers who consistently provide high-quality raw materials. Choosing the right suppliers is crucial for maintaining product quality, as the quality of raw materials significantly affects the final product. With a systematic supplier selection and evaluation system, businesses can ensure that quality standards are met from the beginning of the production process. This directly contributes to improving the quality of local products, making them more competitive in the market and increasing consumer trust in the brand or product offered.

- Controlling the Production Process

Strict control over every stage of the production process is an integral part of effective supply chain management aimed at maintaining consistency and quality of the final product. Through regular monitoring, clear operational standards, and implementation of quality evaluation systems at every production stage, business actors can detect and resolve potential issues early. This ensures that the products meet market standards and provide ongoing customer satisfaction. Thus, good production control enhances the image and competitiveness of local products in a competitive market environment.

- Providing Good Customer Service

An efficient supply chain plays a vital role in supporting optimal customer service, particularly in ensuring timely delivery and product condition upon arrival. With an organized logistics system and accurate shipment tracking, products can be delivered to customers on schedule and in good condition, without damage or delay. This builds customer trust in the brand and strengthens their loyalty to local products. In addition, responsive service in addressing customer requests and complaints can also be supported by an integrated supply chain system, creating a positive and sustainable shopping experience.

3. Enhancing Market Responsiveness and Adaptability through:

- Demand Forecasting

The ability to predict market demand is one of the strategic advantages of modern, data-driven supply chain management. By analyzing historical sales data, consumer trends, and seasonal or social factors influencing purchasing behavior, businesses can more accurately plan production and inventory needs. This allows for stocking levels that match market demand, avoiding shortages or excess inventory, and minimizing losses due to overstock. This strategy not only improves operational efficiency but also offers greater flexibility for local businesses to respond swiftly and accurately to market changes.

➤ Adapting to Change

Flexibility in supply chain management enables businesses to quickly respond to market dynamics such as shifting consumer trends, seasonal demand fluctuations, or supply disruptions. With an adaptive system, companies can adjust production volumes, switch suppliers, or expedite distribution as needed without disrupting operational stability. This adaptability is crucial for local products seeking to remain relevant and competitive amid rapidly changing consumer preferences. A responsive supply chain not only maintains business continuity but also strengthens the product's market position by demonstrating attentiveness to evolving consumer needs.

➤ Offering the Right Products

In-depth understanding of market needs and preferences through supply chain analytics allows companies to design and offer products that are more aligned with consumer demand. Information gathered from various points in the supply chain—from suppliers and distributors to end consumers—can be used to drive product innovation, adjust features, and implement targeted pricing strategies. This way, companies not only meet market expectations but also create added value that differentiates local products from competitors. This strategy strengthens product positioning, increases customer satisfaction, and supports sustainable business growth.

4. Building Strong Partnerships through:

➤ Collaboration with Suppliers

Close collaboration between suppliers and producers within a well-managed supply chain can create mutually beneficial relationships, where both parties share knowledge, experience, and resources. With open and coordinated communication, suppliers can provide insights into the latest raw material trends, more efficient technologies, or cost-saving solutions. In return, producers can offer feedback on the quality of raw materials used and emerging market needs. Such collaboration not only ensures a stable supply of raw materials but also drives faster innovation, improves product quality, and enhances overall supply chain efficiency, which in turn boosts product competitiveness in the market.

➤ Cooperation with Distributors

A strong partnership between producers and distributors plays a vital role in expanding market reach and improving product distribution. By establishing solid collaboration, producers can leverage existing distribution networks to reach more consumers, both locally and globally. Distributors with a deep understanding of market needs and effective distribution channels can help ensure timely delivery of products in good condition. Additionally, this collaboration enables both parties to share information on market trends and consumer demand, allowing products to be distributed more strategically and efficiently, ultimately enhancing product visibility and competitiveness in the market.

➤ Working with the Government

Collaboration between the supply chain and government can provide significant advantages for businesses, especially in gaining policy support and incentives that streamline operations. Governments often offer various programs supporting SME development, such as tax incentives, logistics cost subsidies, or training programs that enhance local product capacity and competitiveness. By establishing this partnership, companies can leverage existing policies to reduce operational costs, improve distribution infrastructure, and access previously

unreachable markets. Furthermore, strong relationships with the government can open opportunities to participate in major projects, support local economic growth, and elevate product competitiveness at both national and international levels.

Challenges Faced by MSMEs in Supply Chain Management

1. Limited Technology

Many MSMEs in Indonesia still face significant challenges in adopting digital technology to efficiently manage their supply chains. Limited resources—both in terms of funding and expertise—are often the main barriers to utilizing advanced technologies such as cloud-based inventory management systems, shipment tracking tools, or production planning software. Without adequate technological support, MSMEs tend to rely on manual methods in their production and distribution processes, which can lead to inefficiencies, human errors, and delays in shipping or inventory management. This results in wasted time and costs, ultimately decreasing their competitiveness in an increasingly competitive market.

In addition, many MSMEs lack the capacity to access training or mentoring in the use of new technologies, leaving them behind in supply chain digitalization. Yet, the proper use of technology can improve supply chain visibility, speed up production processes, and reduce the risk of excess or insufficient stock. To overcome these limitations, it is essential for the government and related institutions to provide easier access to technology and comprehensive training so MSMEs can improve operational efficiency and better compete in the global market.

2. Limited Access to Financing

Limited access to financing is one of the biggest challenges faced by MSMEs in developing their supply chain management. Many MSME players struggle to obtain capital from financial institutions, either due to lack of collateral or limited credit history. Without sufficient funding, they cannot invest in the latest technologies, upgrade production equipment,

or expand their distribution capacity. As a result, MSMEs are often stuck with outdated, inefficient operational systems that are difficult to adapt to the ever-evolving market demands. Furthermore, limited capital also hinders their ability to innovate, which is essential to staying competitive in both local and global markets.

On the other hand, traditional financial institutions are often reluctant to lend to MSMEs due to the perception of higher risk compared to larger companies. This further exacerbates their difficulties in accessing capital, as MSMEs—despite their potential—often do not meet the standard criteria required for credit approval. To address this issue, policies must be implemented to improve the financing system for MSMEs, such as easier access to credit, low-risk financing programs, or incentives for financial institutions that support MSME development. By increasing access to funding, MSMEs will have the opportunity to expand their capacity and strengthen the competitiveness of their products in the market.

3. High Logistics Costs

High logistics costs are a major challenge that hampers the growth of MSMEs, especially in the areas of distribution and supply chain management. The frequent and unpredictable rise in fuel prices directly increases transportation and distribution expenses, affecting the entire supply chain. Additionally, inefficient inventory management can lead to waste in terms of storage space, time, and resources. MSMEs that lack proper technology and management systems often struggle to monitor stock accurately, which can result in imbalances between supply and demand. As a consequence, operational costs rise and delivery times become longer, reducing their competitiveness in the market.

Moreover, low efficiency in logistics processes often worsens the situation, as many MSMEs still rely on traditional or suboptimal methods in conducting distribution operations. Their inability to leverage advanced technology for shipment planning and tracking makes their logistics processes slower and more expensive. This reduces profit margins and affects their

ability to compete with larger companies that have access to more modern and efficient logistics systems. To resolve this issue, MSMEs need to adopt technological solutions that can enhance logistics efficiency, and find ways to reduce transportation and inventory management costs to increase profitability and market competitiveness.

4. Limited Human Resources

The lack of skilled human resources (HR) in supply chain management often poses a significant obstacle for MSMEs in optimizing their operations. Many MSME actors do not have workers with adequate skills to handle various aspects of supply chain management, such as production planning, inventory control, and quality assurance. Without sufficient knowledge of efficient supply chain management techniques, MSMEs are prone to planning and execution errors, which can reduce product quality, delay deliveries, and increase operational costs. This directly impacts their ability to compete in an increasingly competitive market.

Additionally, the lack of training and human resource development programs focused on supply chain management hinders innovation in operational processes. Many MSMEs continue to rely on traditional methods in managing their supply chains, leading to inefficiencies and waste. Without the right skills in modern technology and management systems, MSME workers find it difficult to address challenges such as changes in market demand, price fluctuations of raw materials, and rising competition. Therefore, to improve efficiency and competitiveness, it is important for MSMEs to invest more in human resource training and introduce technologies that can help enhance their workforce's skills in supply chain management.

5. Ineffective Risk Management

Ineffective risk management is one of the main challenges faced by MSMEs in supply chain management. Many MSMEs lack proper systems or procedures to identify and manage various risks that could affect the smooth operation of their supply chains. Without a clear

system, risks such as market demand fluctuations, disruptions in logistics or shipping processes, and raw material price changes are often overlooked or inadequately addressed. This can lead to a decline in service quality, shipping delays, and increased operational costs that directly affect their profitability and competitiveness. In many cases, the inability to anticipate or respond to these risks leads to greater disruptions in MSME operations.

Moreover, many MSMEs lack the resources or knowledge to develop effective risk mitigation strategies. Without regular risk analysis and the use of technology to monitor market and supply chain conditions, they are more vulnerable to unexpected external shocks such as natural disasters, regulatory changes, or economic crises. Therefore, it is crucial for MSMEs to develop more proactive risk management systems, including thorough contingency planning and the use of tools that can help quickly and efficiently identify and mitigate risks. With a more structured approach to risk management, MSMEs will be better prepared to face uncertainties and improve their resilience and competitiveness.

Conclusion

Supply chain management plays a strategic role in enhancing the competitiveness of local products, particularly for Micro, Small, and Medium Enterprises (MSMEs). By implementing effective supply chain management practices, MSMEs can improve operational efficiency, reduce production and distribution costs, and consistently enhance product quality. An integrated supply chain also enables MSMEs to be more responsive to market dynamics, more accurately predict demand, and create products that meet consumer needs. Strong collaboration with suppliers, distributors, and the government further strengthens the position of MSMEs in facing competition, both in local and global markets. However, in its implementation, MSMEs still face various challenges such as limited access to technology, financing constraints, high logistics costs, a shortage of competent human resources, and weak risk management systems. Therefore, support from various stakeholders is essential to help MSMEs overcome these

obstacles through training, access to technology, easier financing, and strengthened logistics infrastructure. Strengthening supply chain management is thus not only a necessity but also a key solution for the sustainability and growth of more competitive MSMEs in supporting the national economy.

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