



# Supply chain management practices and supply chain integration on organizational performance: The mediation role of competitive capabilities

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## ABSTRACT

**Purpose-**This study's goal is to ascertain how competitive capabilities, through supply chain management and supply chain integration, affect organizational performance.

**Design/Methodology/Approach-**Structural equation modeling, assisted by the Smart PLS program, is the data processing technique utilized in this study to examine the impact of the indicators of each of the aforementioned variables on Batik micro, small, and medium enterprises in the Daerah Istimewa Yogyakarta. By distributing questionnaires, the researchers were able to collect data from up to 65 respondents.

**Findings-**The findings of this study demonstrate that supply chain management and supply chain integration have a favorable impact on organizational performance, and that competitive skills can mediate that effect.

**Research limitations/implications-**The study's findings are anticipated to serve as a guide and source of knowledge for business players, particularly Batik micro, small, and medium enterprises in the Daerah Istimewa Yogyakarta, who are expected to understand that in order to enhance the performance of their enterprise, attention must be paid to elements that may have an impact. This study demonstrates that competitive competencies, supply chain integration, and supply chain management techniques are all elements that can impact a company's performance.

**Originality/value-**There are still very few studies on supply chains and organizational performance in micro, small, and medium-sized businesses, particularly Batik. In this study, characteristics that are thought to have an impact on the number of Batik micro, small, and medium enterprises in the Daerah Istimewa Yogyakarta are revealed.

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## 1. The Introduction

Business competition in the current era of globalization is very dynamic and this makes every organization required to maximize the performance of its organization in order to compete competitively in the market (Sahlberg, 2006). Organizational performance is a process of assessing or measuring various indicators in a certain time, including assessments made against goals, and predetermined objectives. The purpose of the assessment is to determine the condition of the organization and help determine future strategies because business competition in the world is very dynamic and always changes and improvements. In general, every organization has a goal that is to increase profits and minimize expenses. Some organizations face these challenges with huge expenditure costs in various things such as production, storage, distribution, marketing, and other processes. This raises the demand for a new strategy in managing production flows and information called supply chain management (Kaplan & Anderson, 2007).

The process of managing raw materials from suppliers, transforming them into finished or semi-finished products, and then distributing them to consumers is known as supply chain management. Value chain management, which is now influenced by consumer needs, has developed from supply chain management. Increasing efficiency, understanding the significance of consumer wants, and making attempts to capture the nuances of consumer value are all areas in which supply chain management plays a part (Gunasekaran et al., 2004). Previous studies, such as those by Khalil et al. (2019) and Hashim et al. (2020), have demonstrated the beneficial effects of supply chain management methods on organizational performance. In other words, the more effective supply chain management is, the better off the organization's performance will be. Therefore, in order to increase performance both financially and operationally, companies, particularly Micro, Small, and Medium-Sized Enterprises (MSMEs), should give consideration to supply chain management (Zhu et al., 2012).

According to Stevenson et al. (2014), supply chain management is a strategic coordination of business functions in business organizations that aims to integrate supply and demand management. Then instead of that, supply chain management also aims to maintain the existence of organizations where each organization has a system periodically to review its performance (Ilmiyati & Munawaroh, 2016). Results from earlier studies that demonstrate a positive impact on organizational performance include both the positive impact of supply chain management practices without competitive capabilities as a mediating variable and the positive impact of supply chain management practices with competitive capabilities as a mediating variable (Ploenhad et al., 2019; Jahanbakhsh & Amini 2023). Competitive capabilities positively affect organizational performance. That is, when competitive capabilities increase, organizational performance also increases, and vice versa (Saqib et al., 2018).

Implementing supply chain integration must be paid attention to in addition to supply chain management methods' effects on organizational performance. One of the best strategies for businesses to boost their competitiveness is supply chain integration. Supply chain integration denotes the realization of interdependence across all components of the supply chain management series (Barney, 2015). Agyabeng-Mensah et al. (2019) and Khanuja & Jain (2022) earlier studies demonstrated the beneficial effects of supply chain integration on organizational performance. The more the supply chain is integrated, the better off the organization is. The findings of earlier research by Armistead & Mapes (1993), which suggested that stronger supply chain integration can enhance organizational quality and performance, lend credence to this.

Internal integration, which includes cross-functional integration, and external integration, which includes suppliers and consumers, should both result in an improvement in the supply chain integration process. This integration can be accomplished by formalizing and centralizing the organizational structure, introducing new technology, and continuously monitoring performance for each internal logistical function. A company's performance, particularly that of MSMEs, can be improved by employing supply chain management strategies that function smoothly from upstream to downstream (Gunasekaran et al., 2004).

Competitive advantages also aid supply chain management techniques in enhancing corporate effectiveness. For supply chain management methods to function and be effectively integrated, the competitive capability of the company must be at a high level (Widagdo et al.,

2019). The findings of studies by Hoiron et al. (2019) and Ploenhad et al. (2019) demonstrate the beneficial impact of competitive qualities on organizational performance. Capabilities positively affect organizational performance. This means that when competitive capabilities increase, organizational performance also increases, and vice versa if competitive capabilities decrease, then organizational performance also decreases (Saqib et al., 2018).

Competing effectively is being able to attract more attention than other parties who carry out similar tasks (Porter, 1996). The strategy is used to build long-term cooperative relationships with partners and compare them in big or small scales organizations because big or small scales organizations have different activity roles, as well as MSMEs must have their own roles (Singh et al., 2010). Strategic partnership relationships and consumer relationships have a positive influence on competitive capabilities, while information sharing and delays have no positive impact on competitive capabilities, according to research by Jahanbakhsh & Amini (2023) on the relationship between supply chain management practices and competitive capabilities. In a separate study, Li et al. (2006) found that supply chain management practices' indicators of strategic partnership partnerships, customer interactions, information sharing, and delays have a favorable impact on competitive capabilities and organizational performance.

Today MSMEs are developing a lot in Indonesia and become one of the supporters of the Indonesian economy because MSMEs have a very important function in terms of employment, overcoming poverty levels, and means to revive the community's economy. MSMEs have an important role in improving the Indonesian economic sector, including in the Daerah Istimewa Yogyakarta. The object taken in this study is MSMEs engaged in the Batik sector in Daerah Istimewa Yogyakarta. The reasons for the researchers to take the context of the study are: First, data published by the Central Statistics Agency in 2021 showed that economic growth in Daerah Istimewa Yogyakarta in the second quarter reached 11,81% due to the increase in export levels. In Daerah Istimewa Yogyakarta, MSMEs control 98,4% of the total business units, absorb 79% of the workforce, and support export performance. MSME players in Daerah Istimewa Yogyakarta have an important role in increasing exports, which are dominated by clothing products (fashion) included in the Batik sector. Daerah Istimewa Yogyakarta is known to be strong in the creative economy in the fashion sector in which there are Batik MSMEs. The number of Batik MSMEs players in Daerah Istimewa Yogyakarta in 2021 was recorded at 1,549 business units, so this is quite interesting to be investigated further, especially related to supply chain management practices, supply chain integration, competitive capabilities, and organizational performance in the Batik MSMEs that have never been studied by researchers before.

Second, researchers took the context of research on MSMEs in the Batik sector in Daerah Istimewa Yogyakarta because in 2009 UNESCO recognized Indonesian Batik as a form of wealth of human civilization, and then in 2014, Daerah Istimewa Yogyakarta received recognition from the World Craft Council as a World Batik City, so that Daerah Istimewa Yogyakarta became a center of information or entrance for the world about Batik spread throughout Indonesia (Report of the Government of the Daerah Istimewa Yogyakarta, 2016). In the current pandemic era, Batik MSMEs also feel the impact because in the midst of efforts by various parties to end this pandemic by reducing the level of mobilization, Batik MSMEs actors are required to continue to survive the situation. This can happen considering that Batik products are tertiary needs that are not included in primary needs, so Batik MSMEs players must also strive to continue to maintain their performance by improving supply chain management practices, supply chain integration, and competitive capabilities.

## 2. Literature Review and Hypothesis Development

Supply chain management is the coordination of all supply chain activities, from the procurement of raw materials to the delivery of happy customers. Suppliers, manufacturing firms or service providers, distributor businesses, wholesalers, or retailers who distribute goods or services to final consumers are all included in the supply chain management (Barney, 2015). In order to gain a competitive edge in a sustainable way, supply chain management integrates and optimizes linkages between supply chain networks. To ensure that goods are produced and distributed in the proper quantity, at the proper time, and in the proper location in order to reduce

costs and give customers the services they want, supply chain management management is a collection of techniques. Prior studies have shown that a number of organizational performance factors are influenced by several dimensions of supply chain management strategies, including information quality, customer interactions, and strategic supplier partnerships. According to Hwihanus et al. (2022), employing the best supply chain management strategies can boost output, market share, and customer growth. According to Khalil et al. (2019), the more supply chain management practices used, the better the organization's performance will be. Supply chain management factors should be taken into account by MSMEs in order to enhance both the financial and operational success of their businesses. To ensure that suppliers' products are of higher quality and that the organization as a whole performs better in terms of both production and sales, the organization should periodically make ongoing improvements to its supply chain management processes (Suharto, 2013). **H<sub>1</sub>: Supply Chain Management Practices Has a Positive Effect on Organizational Performance**

According to Heizer et al. (2020), the supply chain is a worldwide network of businesses and activities that provide products and services to other businesses. Increasing customer value is one of the supply chain tasks that is coordinated as part of supply chain management (Heizer et al., 2020). According to Singh et al. (2010), supply chain management practices enhance competitive capacities. Jahanbakhsh & Amini (2023), who assert that improved supply chain management methods can result in stronger competitive capacities, likewise support this. Supply chain management techniques have a favorable impact on competitive skills since they can help producers or organizations compete if they are successful in the agribusiness of a particular commodity (Storer et al., 2014). **H<sub>2</sub>: Supply Chain Management Practices Has a Positive Effect on Competitive Capabilities**

Sin et al. (2016) assert that an organization has competitive competence if it is successful in focusing on a sufficiently wide market sector. Porter (2008) claims that a company's competitive competence is its capacity to generate earnings that are higher than those that rivals in the same market can generate. Therefore, it may be said that a company's competitive competence is its capacity to generate profits that are higher than those that rivals in the same market can generate. Organizational performance is positively impacted by competitive competencies (Baah & Jin, 2019). Competitive capability is a factor that exists in an organization to create a space that can withstand the attacks of competitors and includes what the organization does to defeat its competitors and this can improve organizational performance. **H<sub>3</sub>: Competitive Capabilities Has a Positive Effect on Organizational Performance**

By implementing effective supply chain management practices, it is possible to improve organizational performance. Better customer satisfaction will result from the successful application of supply chain management practices, which will in turn improve financial performance. On the other side, techniques for supply chain management have two goals: improving both organizational and overall supply chain performance. According to this viewpoint, it was stated that the application of supply chain management practices is not only focused on improving the effectiveness of the company's individual performance but also requires increasing effectiveness related to the performance of supply chain partners as a whole. This is necessary in order to remain competitive in the marketplace. According to Green et al. (2012), competitive capacity increases the influence of supply chain management strategies, which can boost organizational performance. These findings validate the capacity hypothesis's claim that supply chain management's impact on organizational performance can be mediated. Competitive capabilities are used as one way to achieve organizational performance goals in the form of competitive advantage to be able to win market competition (Munizu, 2013). **H<sub>4</sub>: Competitive Capabilities Mediate The Positive Influence of Supply Chain Management Practices on Organizational Performance**

According to a collection of theories known as supply chain integration, every organization in the supply chain has an impact on the performance of every other organization, which in turn has an impact on the performance of the supply chain as a whole (Cooper et al., 1999). In order to use operational and competitive capabilities as a competitive force and innovation in the context of competition for a large market share, supply chain integration is a reference for an organization (Mentzer et al., 2001). Supply chain integration has a positive influence on competitive capabilities (Lii & Kuo, 2016). From upstream to downstream, a well-coordinated supply chain integration will benefit the business and improve its competitiveness. **H<sub>5</sub>: Supply Chain Integration Has a Positive Effect on Competitive Capabilities**

According to a set of ideas known as supply chain integration, every organization in the supply chain has an impact on the performance of every other organization, which in turn has an impact on the performance of the supply chain as a whole (Som et al., 2019). Integration denotes a state of oneness and awareness of interdependencies across all components of the supply chain management chain. Kim (2006) contends that effective links between supply chain activities are necessary to reap the benefits of supply chain integration, and that these linkages should be subject to the development and use of diverse supply chain strategies for integrated and successful supply networks. According to studies done by Tarigan et al. (2021) and Pakurár et al. (2019), supply chain integration improves organizational performance. Krajewski et al. (2016) propose that the development of effective coordination, cooperation, and collaboration in the supply chain integration process can promote competitiveness and help the improvement of organizational performance. According to Armistead & Mapes (1993), increasing supply chain integration can enhance organizational quality and performance. Supplier integration can assist businesses in developing, providing, producing, and providing services on schedule, which will speed up deliveries and enhance business performance (Flynn et al., 2010). According to Droge et al. (2004), customer integration boosts market share and organizational effectiveness. A key factor influencing organizational success is the widespread integration of suppliers and customers (Flynn et al., 2010). **H<sub>6</sub>: Supply Chain Integration Has a Positive Effect on Organizational Performance**

Integration denotes a state of oneness and awareness of interdependencies across all components of the supply chain management chain. Kim (2006) contends that effective links between supply chain activities are necessary to reap the benefits of supply chain integration, and that these linkages should be subject to the development and use of diverse supply chain strategies for integrated and successful supply networks. Competitive capability can be a mediating variable on the effect of supply chain integration on organizational performance when the organization is able to implement supply chain integration well so that the organization is able to develop supply chain strategy capabilities, determine supply chain results and this will increase the organization competitive capabilities (Storer et al., 2014). The existence of high competitive capabilities will result in competitive advantages for the organization and ultimately can improve organizational performance. **H<sub>7</sub>: Competitive Capabilities Mediate The Positive Effect of Supply Chain Integration on Organizational Performance**

This study uses a questionnaire deployment and Smart PLS testing to analyze relationships between independent variables (supply chain management practices and supply chain integration), dependent variables (organizational performance), and mediator variables (competitive capabilities). Based on this, figure 1 below depicts the conceptual framework for this investigation.



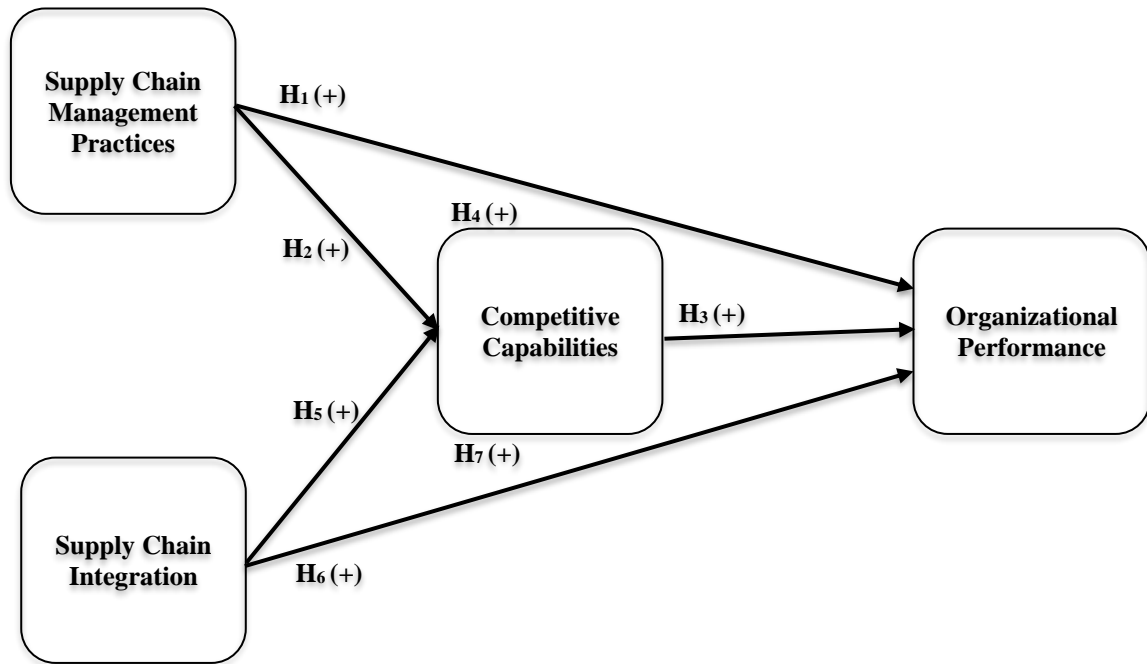


Figure 1. Research Framework

### 3. Research Methodology

MSMEs in the Batik industry in the Daerah Istimewa Yogyakarta, with a total of 1,549 units registered with the Daerah Istimewa Yogyakarta Cooperative and SME Office in 2021, make up the population of this study. The limitation of respondent sample size is the rule of thumb in determining sample size by Roscoe et al. (1975) who said that sufficient sample sizes generally range from 30 to 500. And for multivariate analysis, the recommended sample size is equal to or more than 10 times the number of variables used. Based on the opinions of the experts above, the researchers used samples ranging from 30 to 500. Purposive sampling is the sample strategy used in this investigation. Choosing samples based on criteria that are thought to have a connection to previously known population characteristics is known as purposeful sampling. The sample criteria in this study are as follows: 1) MSMEs in the Daerah Istimewa Yogyakarta engaged in the Batik sector, 2) Batik craft MSMEs that are registered with the cooperative and SME office and have attended training or workshop related to supply chain management and competitive capabilities for the industry, and 3) MSMEs in the Daerah Istimewa Yogyakarta engaged in the economic sector of Batik crafts that have been operating for more than three years. The assumption used by researchers when choosing MSMEs that have been operating for more than three years is that the manager or party of the MSME owner already knows about the condition of supply chain management, competitive capabilities, and good organizational performance.

Data collection is carried out online and contains questions about supply chain management practices, supply chain integration, competitive capabilities, and company performance which will later be generated quantitative data (in the form of numbers) then processed by researchers with the Smart PLS. Each respondent's answer to each variable was measured using a Likert scale with five points. Supply chain management practices (SCMP) variables are measured by seven indicators (Larson, 2001), supply chain integration (SCI) variables are measured by 19 indicators (Said et al., 2006), competitive capability (CC) variables are measured by 20 indicators (Kim, 2006), and organizational performance (OP) variables are measured by five indicators (Kim, 2006).

If an indicator's loading factor value is less than 0.4, it can be eliminated from the research model. If it is greater than 0.7, the indicator is deemed to be good. The reflective measure is expressed as high and it is highly recommended if it correlates more than 0.7 with the construct to be measured, however, the loading factor value > 0.5 is considered sufficient (Ghozali & Latan, 2015). Composite reliability, according to Ghozali & Latan (2015), is used to gauge the importance of consistency between indicators of the constructs that make it up. If the composite

reliability value is less than 0.7 and the Cronbach's alpha value is recommended over 0.6, a variable is considered to be good. Furthermore, to assess the design of hypothesis testing, direct influence testing is required. The bootstrap resampling method is used to test research hypotheses. If the hypothesis has a p value of less than 0.5, then the hypothesis is said to be accepted or supported (Ghozali & Latan, 2015).

#### 4. Result and Discussion

##### Validity Test

Each indicator has a loading factor value above the suggested value of more than 0.7, as shown in Table 1 and Figure 2 below. This means that all indicators for each variable are deemed legitimate and can be used in this study. The factors of competitive capabilities, supply chain management strategies, supply chain integration, and organizational performance are deemed valid when their loading factor values are greater than 0.7 for each variable.

**Table 1. Validity Test Result**

Indicator	Supply Chain Management Practices	Supply Chain Integration	Competitive Capabilities	Organizational Performance
SCMP 1	0.757			
SCMP 2	0.853			
SCMP 3	0.737			
SCMP 4	0.850			
SCMP 5	0.849			
SCMP 6	0.877			
SCMP 7	0.775			
SCI 1		0.813		
SCI 2		0.840		
SCI 3		0.724		
SCI 4		0.719		
SCI 5		0.704		
SCI 6		0.845		
SCI 7		0.869		
SCI 8		0.877		
SCI 9		0.743		
SCI 10		0.804		
SCI 11		0.840		
SCI 12		0.815		
SCI 13		0.788		
SCI 14		0.782		
SCI 15		0.800		
SCI 16		0.802		
SCI 17		0.791		
SCI 18		0.829		
SCI 19		0.811		
CC 1			0.770	
CC 2			0.814	
CC 3			0.837	
CC 4			0.731	
CC 5			0.778	
CC 6			0.807	
CC 7			0.825	
CC 8			0.871	
CC 9			0.832	
CC 10			0.859	
CC 11			0.723	
CC 12			0.735	
CC 13			0.834	
CC 14			0.791	
CC 15			0.803	

Indicator	Supply Chain Management Practices	Supply Chain Integration	Competitive Capabilities	Organizational Performance
CC 16			0.814	
CC 17			0.835	
CC 18			0.760	
CC 19			0.788	
CC 20			0.819	
OP 1				0.855
OP 2				0.839
OP 3				0.886
OP 4				0.805
OP 5				0.860

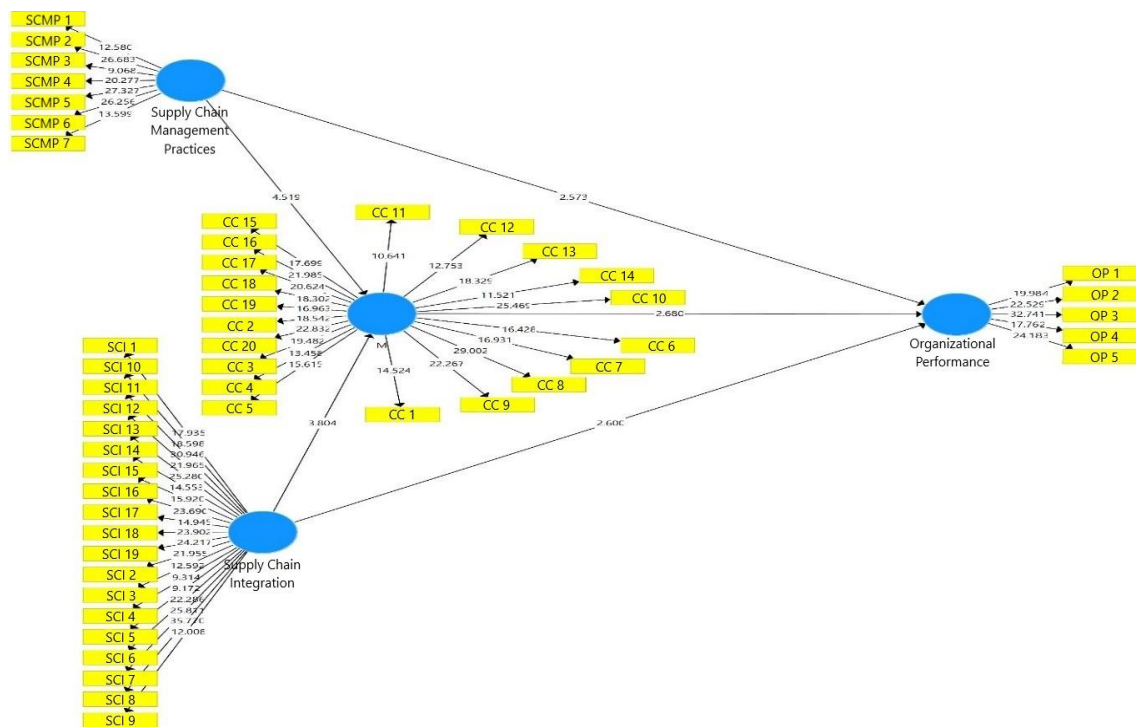


Figure 2. Measurement Model

**Reliability Test**

From table 2 below, it can be seen that the composite reliability value shows that each variable has a value of more than 0.7, so it can be concluded that all variables meet the reliability test or all reliable variables. Apart from the value of composite reliability, reliability testing is also seen from the value of Cronbach's alpha where all variables show numbers above 0.6.

Table 2. Reliability Test Result

Variable	Cronbach's Alpha	Composite Reliability
Supply Chain Management Practices	0.915	0.933
Supply Chain Integration	0.969	0.971
Competitive Capabilities	0.971	0.973
Organizational Performance	0.903	0.928

**Hypothesis Test**

Based on table 3 below, it can be seen that all research hypotheses, both direct and indirect, are proven to be accepted. This is based on the p value of each hypothesis is below 0.05, so the hypothesis is declared accepted.



**Table 3. Hypothesis Test**

Hypothesis	Original Sample	Sample Mean	Standard Deviation	T Statistic	P Value
Supply Chain Management Practices → Organizational Performance	0.228	0.215	0.089	2.573	0.010
Supply Chain Management Practices → Competitive Capabilities	0.432	0.439	0.096	4.519	0.000
Competitive Capabilities → Organizational Performance	0.336	0.330	0.125	2.680	0.008
Supply Chain Management Practices → Competitive Capabilities → Organizational Performance	0.145	0.148	0.070	2.076	0.038
Supply Chain Integration → Competitive Capabilities	0.423	0.424	0.111	3.804	0.000
Supply Chain Integration → Organizational Performance	0.355	0.373	0.136	2.600	0.010
Supply Chain Integration → Competitive Capabilities → Organizational Performance	0.142	0.138	0.062	2.302	0.022

## Discussion

### The Effect of Supply Chain Management Practices on Organizational Performance

Practices in supply chain management have a positive impact on organizational performance, supporting the first hypothesis. According to earlier research by Khan et al. (2023), supply chain management strategies have a favorable impact on organizational performance. The performance of these Batik MSMEs is more favorable the more value supply chain management strategies. In addition, Storer et al. (2014) shows that when supply chain management practices are implemented and implemented by organizations, it will increase organizational effectiveness in producing and managing the distribution of Batik MSMEs products so as to increase organizational profits. This shows that to improve the organizational performance of MSMEs in the Batik sector, it is necessary to implement a strategy of supply chain management practices (Storer et al., 2014).

### The Effect of Supply Chain Management Practices on Competitive Capabilities

Supply chain management practices positively affect competitive capabilities, which means that the second hypothesis is accepted. With supply chain management practices that work well, this becomes a competitive advantage for organizations and ultimately can increase competitive capabilities. This implies that more competitive capabilities will increase as supply chain management strategies improve. The findings of this study are consistent with Thatte et al. (2013) research, which demonstrates that supply chain management methods significantly improve competitive capacities. According to Storer et al. (2014), when supply chain management procedures are put into place and followed by every link in the chain, the organization will be able to use resources in a way that works with the strategy to accomplish the desired end result, boosting the organization's competitive capabilities. Suharto (2013) also found that practices for supply chain management place an emphasis on ways to streamline the integration of suppliers, manufacturing, warehouses, and storage so that goods are produced and distributed in the right quantity, the right location, and the right time, to lower costs, provide service satisfaction, and increase the organization's competitive capabilities.

### The Effect of Competitive Capabilities on Organizational Performance

Competitive capabilities positively affect organizational performance, which means that the third hypothesis is accepted. With competitive capabilities that run well in a business or commodity, this can improve organizational performance. The results of this study are consistent with the research of Majeed (2011) who explained that competitive capabilities have a positive effect on organizational performance. Organizations that have competitive capabilities such as

product innovations that are distinctive and better known in the market, as well as the support of more advanced technology, are unique organizations that distinguish them from competitors are factors that greatly affect organizational performance. To improve organizational performance, MSMEs in the Batik sector need to focus on competitive capabilities by continuing to strive to instill the values adopted and improve the application of quality management.

### **The Mediating Role of Competitive Capabilities on the Effect of Supply Chain Management Practices to Organizational Performance**

The fourth hypothesis is supported because competitive capabilities operate as a mediator between supply chain management strategies and improved organizational performance. The fourth hypothesis test results demonstrate that the hypothesis is accepted, indicating that supply chain management practices used by MSMEs will enhance cost control, quality, flexibility, responsiveness, and ability to clearly articulate vision and mission. These practices will also provide support within the organization in order to foster a professional work environment through competitive capabilities, which will ultimately improve organizational performance. The findings of this study are in line with those of Li et al. (2006) study, which found that supply chain management methods have a considerable impact on organizational performance through the mediation of competitive capacities. The application of supply chain management principles to retail operations or these MSMEs producing Batik will result in all of the actions that can enhance competitive capacities, which will have an impact on organizational performance.

### **The Effect of Supply Chain Integration on Competitive Capabilities**

Supply chain integration positively affects competitive capabilities, which means that the fifth hypothesis is accepted. Supply chain integration consists of eight sub-variables namely relationship with customers, exchange of information through networks, use of computerized systems, sharing market information, sharing of product availability information, order management processes, customer complaint rates and customer satisfaction evaluation and this will increase the competitive capabilities of the organization. The findings of this study are in line with those of Mbuthia & Rotich (2014) study, which found that supply chain integration has a favorable impact on competitive capabilities. Effective supply chain integration can become a key component of the supply chain in the future, and this can develop competitive capabilities for the company. Organizations that can operate strategically and in harmony with suppliers can avoid waste of time and effort.

### **The Effect of Supply Chain Integration on Organizational Performance**

Since supply chain integration improves organizational performance, the sixth hypothesis is supported. This will result in a good MSME processing effect with good supply chain integration in its implementation, which will boost organizational performance. Good supply chain integration must be implemented in order for an organization to perform well. This study demonstrates that supply chain integration has a favorable impact on organizational performance, which is consistent with earlier research by Kim (2006) that found a favorable impact of supply chain integration on organizational performance. The performance of MSME firms will improve with better supply chain integration because a more integrated supply chain will raise the total value produced by the supply chain. MSMEs that successfully integrate their supply chains can actually increase organizational performance by working to produce affordable goods with suppliers, delivering on schedule, and providing high-quality products. Additionally, this study is in line with research by Storer et al. (2014), which demonstrates that supply chain integration will systematically speed up information flow, production outcomes, and payment and ordering systems that are useful for enhancing organizational performance.

### **The Mediating Role of Competitive Capabilities on the Effect of Supply Chain Integration to Organizational Performance**

The seventh hypothesis is supported because competitive capacities mitigate the beneficial effects of supply chain integration on organizational performance. The findings of this study are

consistent with earlier research, which found that supply chain integration enhances an organization's ability to compete (Storer et al., 2014). An industry will benefit from strategic supply chain capabilities when its supply chain members can be integrated strategically. This can boost the industry's competitive capacities. According to the findings of statistical analysis carried out by the academics mentioned above, both organizational competencies and supply chain integration have a favorable impact on organizational performance. This study demonstrates that, via the use of competitive competencies, supply chain integration also has a favorable impact on organizational performance. The findings of this study demonstrate that clear, methodical, and coordinated supply chain integration will produce operational success and give firms a competitive advantage that impacts organizational performance. Integration of the supply chain includes integration of the processes, which entails close coordination between customers and providers. MSMEs must successfully integrate into a supply chain in order to make the necessary modifications to maintain their competitiveness. The seventh theory proposes that the beneficial impact of supply chain integration on organizational performance might be mediated through competitive capacities. Consequently, supply chain integration influences organizational performance since it creates operational effectiveness and a competitive competency for MSMEs. The findings of this study are consistent with earlier research by Storer et al. (2014), which demonstrated that systematic and coordinated supply chain integration will result in operational effectiveness as a competitive capability, which in turn influences the enhancement of organizational performance.

## 5. Conclusion

All of the study's hypotheses have proven to be supported by or accepted based on the findings of other investigations. It has been demonstrated that supply chain management techniques enhance competitiveness and organizational performance. Competitive capabilities have additionally been demonstrated to have a favorable impact on organizational performance, demonstrating their ability to mediate the impact of supply chain management strategies on organizational performance. Then, given that supply chain integration has successfully been shown to improve both organizational performance and competitive capabilities, it follows that competitive capabilities have also successfully served to mediate this effect.

## REFERENCES

- Agyabeng-Mensah, Y., Ahenkorah, E. N. K., & Osei, E. (2019). Impact of logistics information technology on organisational performance: Mediating role of supply chain integration and customer satisfaction. *Journal of Supply Chain Management Systems*, 8(4).
- Armistead, C., & Mapes, J. (1993). The impact of supply chain integration on operating performance. *Logistics Information Management*, 6(4). <https://doi.org/10.1108/09576059310045907>
- Baah, C., & Jin, Z. (2019). Sustainable supply chain management and organizational performance: The intermediary role of competitive advantage. *Journal of Management and Sustainability*, 9(1). <https://doi.org/10.5539/jms.v9n1p119>
- Barney, J. B. (2015). Economics meets sociology in strategic management firm resources and sustained competitive advantage article information. *Economics Meets Sociology in Strategic Management*, 17.
- Cooper, M. C., Lambert, D. M., Pagh, J. D., & Moon, H. C. (1999). A conceptual framework of supply chain management and its implication for Korean firms. *International Commerce and Information Review*, 1(1), 11–32.
- Droge, C., Jayaram, J., & Vickery, S. K. (2004). The effects of internal versus external integration practices on time-based performance and overall firm performance. *Journal of Operations Management*, 22(6). <https://doi.org/10.1016/j.jom.2004.08.001>
- Flynn, B. B., Huo, B., & Zhao, X. (2010). The impact of supply chain integration on performance: A contingency and configuration approach. *Journal of Operations Management*, 28(1). <https://doi.org/10.1016/j.jom.2009.06.001>
- Ghozali, I., & Latan, H. (2015). *Partial Least Squares Konsep, Teknik, dan Aplikasi menggunakan Program Smart PLS 3.0 untuk Penelitian Empiris*. Badan Penerbit Universitas Diponegoro.

- Green, K. W. J., Zelbst, P. J., Meacham, J., & Bhadauria, V. S. (2012). Green supply chain management practices: Impact on performance. *Supply Chain Management: An International Journal*, 17(3), 290–305. <https://doi.org/10.1108/13598541211227126>
- Gunasekaran, A., Patel, C., & McGaughey, R. E. (2004). A framework for supply chain performance measurement. *International Journal of Production Economics*, 87(3). <https://doi.org/10.1016/j.ijpe.2003.08.003>
- Hashim, M., Baig, S. A., Amjad, F., Nazam, M., & Akram, M. U. (2020). Impact of supply chain management practices on organizational performance and moderating role of innovation culture: A case of Pakistan textile industry. *Advances in Intelligent Systems and Computing*, 1002. [https://doi.org/10.1007/978-3-030-21255-1\\_30](https://doi.org/10.1007/978-3-030-21255-1_30)
- Heizer, J., Render, B., & Munson, C. (2020). *Operations management: Sustainability and supply chain management*. Pearson.
- Hoiron, M., Wahyudi, E., & Puspitaningtyas, Z. (2019). Pengaruh kapabilitas pemasaran, keunggulan bersaing dan budaya organisasi terhadap kinerja UMKM di Kabupaten Lumajang. *Majalah Ilmiah DIAN ILMU*, 18(1). <https://doi.org/10.37849/midi.v18i1.108>
- Hwihanus, H., Wijaya, O. Y. A., & Nartasari, D. R. (2022). The role of supply chain management on Indonesian small and medium enterprise competitiveness and performance. *Uncertain Supply Chain Management*, 10(1). <https://doi.org/10.5267/j.uscm.2021.10.005>
- Ilimiyati, A., & Munawaroh, M. (2016). Pengaruh manajemen rantai pasokan terhadap keunggulan kompetitif dan kinerja perusahaan (Studi pada usaha kecil dan menengah di Kabupaten Bantul). *Jurnal Manajemen Bisnis*, 7(2), 226–251.
- Jahanbakhsh, N., & Amini, M. (2023). Evaluating the effect of supply chain management practice on implementation of halal agroindustry and competitive advantage for small and medium enterprises. *International Journal of Computer Science and Information Technology*, 15(2023).
- Kaplan, R. S., & Anderson, S. R. (2007). *Time-driven activity-based costing: A simpler and more powerful path to higher profits*. Harvard Business School Press Books.
- Khalil, M. K., Khalil, R., & Khan, S. N. (2019). A study on the effect of supply chain management practices on organizational performance with the mediating role of innovation in SMEs. *Uncertain Supply Chain Management*, 7(2). <https://doi.org/10.5267/j.uscm.2018.10.007>
- Khan, S. A. R., Tabish, M., & Zhang, Y. (2023). Embracement of industry 4.0 and sustainable supply chain practices under the shadow of practice-based view theory: Ensuring environmental sustainability in corporate sector. *Journal of Cleaner Production*, 398. <https://doi.org/10.1016/j.jclepro.2023.136609>
- Khanuja, A., & Jain, R. K. (2022). The mediating effect of supply chain flexibility on the relationship between supply chain integration and supply chain performance. *Journal of Enterprise Information Management*, 35(6). <https://doi.org/10.1108/JEIM-11-2020-0449>
- Kim, S. W. (2006). Effects of supply chain management practices, integration and competition capability on performance. *Supply Chain Management*, 11(3). <https://doi.org/10.1108/13598540610662149>
- Krajewski, L. J., Ritzman, L. P., & Malhotra, M. K. (2016). *Operations management: Processes and supply chains*. Pearson Higher.
- Larson, P. D. (2001). Designing and managing the supply chain: concepts, strategies, and case studies. *Journal of Business Logistics*, 22(1). <https://doi.org/10.1002/j.2158-1592.2001.tb00165.x>
- Li, S., Ragu-Nathan, B., Ragu-Nathan, T. S., & Subba Rao, S. (2006). The impact of supply chain management practices on competitive advantage and organizational performance. *Omega*, 34(2). <https://doi.org/10.1016/j.omega.2004.08.002>
- Lii, P., & Kuo, F. I. (2016). Innovation-oriented supply chain integration for combined competitiveness and firm performance. *International Journal of Production Economics*, 174. <https://doi.org/10.1016/j.ijpe.2016.01.018>
- Majeed, S. (2011). The impact of competitive advantage on organizational performance. *European Journal of Business and Management*, 3(4), 191–196.



- Mbuthia, M. M., & Rotich, G. (2014). Effects of supply chain management practices on competitive advantage in retail chain stores in Kenya: A case study of Nakumatt Holding Limited. *European Journal of Business Management*, 2(1).
- Mentzer, J. T., DeWitt, W., Keebler, J. S., Min, S., Nix, N. W., Smith, C. D., & Zacharia, Z. G. (2001). Defining supply chain management. *Journal of Business Logistics*, 22(2). <https://doi.org/10.1002/j.2158-1592.2001.tb00001.x>
- Munizu, M. (2013). The impact of total quality management practices towards competitive advantage and organizational performance: Case of fishery industry in South Sulawesi Province of Indonesia. *Pakistan Journal of Commerce and Social Sciences*, 7(1).
- Pakurár, M., Haddad, H., Popp, J., Khan, T., & Oláh, J. (2019). Supply chain integration, organizational performance and balanced scorecard: An empirical study of the banking sector in Jordan. *Journal of International Studies*, 12(2). <https://doi.org/10.14254/2071-8330.2019/12-2/8>
- Ploenhad, J., Laoprawatchai, P., Thongrawd, C., & Jermstittiparsert, K. (2019). Mediating role of competitive advantage on the relationship of supply chain management and organizational performance on the food industry of Thailand. *International Journal of Supply Chain Management*, 8(4).
- Porter, M. E. (1996). Competitive advantage, agglomeration economies, and regional policy. *International Regional Science Review*, 19(2). <https://doi.org/10.1177/016001769601900208>
- Porter, M. E. (2008). The five competitive forces that shape strategy. *Harvard Business Review*, 86(1).
- Roscoe, A. M., Lang, D., & Sheth, J. N. (1975). Follow-up methods, questionnaire length, and market differences in mail surveys: In this experimental test, a telephone reminder produced the best response rate and questionnaire length had no effect on rate of return. *Journal of Marketing*, 39(2), 20–27. <https://doi.org/10.1177/002224297503900205>
- Sahlberg, P. (2006). Education reform for raising economic competitiveness. *Journal of Educational Change*, 7(4). <https://doi.org/10.1007/s10833-005-4884-6>
- Said, A. I., Bayu, A. S., Clara, L. B., Hoetomo, L., Riri, S., Soerjo, W., & Zaldi, I. M. (2006). *Produktivitas dan Efisiensi dengan Supply Chain Management*. Penerbit PPM.
- Saqib, M., Toobi, S. Al, Nadhiri, F. Al, & Younus, F. (2018). Integrating knowledge management and business intelligence practices to improve organizational performance. In *Proceedings of Majan International Conference: Promoting Entrepreneurship and Technological Skills: National Needs, Global Trends, MIC 2018*. <https://doi.org/10.1109/MINTC.2018.8363154>
- Sin, K. Y., Osman, A., Salahuddin, S. N., Abdullah, S., Lim, Y. J., & Sim, C. L. (2016). Relative advantage and competitive pressure towards implementation of e-commerce: Overview of small and medium enterprises (SMEs). *Procedia Economics and Finance*, 35. [https://doi.org/10.1016/s2212-5671\(16\)00054-x](https://doi.org/10.1016/s2212-5671(16)00054-x)
- Singh, R. K., Garg, S. K., & Deshmukh, S. G. (2010). Strategy development by small scale industries in India. *Industrial Management & Data Systems*, 110(7). <https://doi.org/10.1108/02635571011069112>
- Som, J. O., Cobblah, C., & Anyigba, H. (2019). The effect of supply chain integration on supply chain performance. Available at SSRN 3454081.
- Stevenson, W. J., Hojati, M., & Cao, J. (2014). *Operations management*. McGraw-Hill Education.
- Storer, M., Hyland, P., Ferrer, M., Santa, R., & Griffiths, A. (2014). Strategic supply chain management factors influencing agribusiness innovation utilization. *International Journal of Logistics Management*, 25(3). <https://doi.org/10.1108/IJLM-02-2013-0026>
- Suharto, R. (2013). Analisa pengaruh supply chain management terhadap keunggulan bersaing dan kinerja perusahaan. *Business Accounting Review*, 1(2).
- Tarigan, Z. J. H., Mochtar, J., Basana, S. R., & Siagian, H. (2021). The effect of competency management on organizational performance through supply chain integration and quality. *Uncertain Supply Chain Management*, 9(2). <https://doi.org/10.5267/j.uscm.2021.3.004>
- Thatte, A. A., Rao, S. S., & Ragu-Nathan, T. S. (2013). Impact of SCM practices of a firm on supply chain responsiveness and competitive advantage of a firm. *Journal of Applied Business Research*, 29(2). <https://doi.org/10.19030/jabr.v29i2.7653>



- Widagdo, S., Rachmaningsih, E. K., & Handayani, Y. I. (2019). *Resource based view: Strategi bersaing berbasis kapabilitas dan sumber daya*. Mandala Press.
- Zhu, Q., Sarkis, J., & Lai, K. H. (2012). Green supply chain management innovation diffusion and its relationship to organizational improvement: An ecological modernization perspective. *Journal of Engineering and Technology Management*, 29(1). <https://doi.org/10.1016/j.jengtecman.2011.09.012>