



The Role of Supply Chain Management on Competitive Advantage and SMEs Operational Performance During Post Pandemic and Digital Era

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Abstract-This study aims to determine the effect of supply chain management practices on the competitive advantage of SMEs; analyze the effect of supply chain management practices on SMEs performance; determine the effect of competitive advantage on the performance of SMEs . The population in this study was SMEs and the sampling technique in this study used purposive sampling with a sample size of 150 SMEs owners. Data collection techniques used online questionnaires distributed through social media which were tested for validity and reliability. The data analysis tool used to answer the research hypothesis is SmartPLS 3.0. with the stages of testing the validity, reliability, coefficient of termination and hypothesis testing. The results of this study indicate that supply chain management has a direct and positive effect on the competitive advantage of SMEs, supply chain management has a direct and positive impact on the performance of SMEs, competitive advantage has a direct and positive effect on the performance of SMEs. SMEs to continue to improve their competitive advantage and supply chain management to continue to develop their business.

Keywords: SMEs, competitive advantage, supply chain management, Operational Performance

Introduction

In this digital era and pandemic, Micro, Small and Medium Enterprises (SMEs) play a very large role in advancing the Indonesian economy. Apart from being an alternative for new jobs, according to Basheer et al. (2019); Buer et al. (2021); Dumitrascu et al. (2020) SMEs also play a role in driving the pace of economic growth at a time when large SMEs-SMEs experience difficulties in developing their businesses. Currently, SMEs have contributed greatly to Indonesia's regional and state revenues. According to Basheer et al. (2019) UKM is a form of community small business whose establishment is based on a person's initiative. Most people think that SMEs only benefit certain parties. In fact, SMEs play a very important role in reducing the unemployment rate in Indonesia. SMEs can absorb a lot of Indonesian workers who are still unemployed. In addition, SMEs have contributed greatly to regional and state revenues in Indonesia. According to vanov et al. (2018) SMEs have an important role in economic development. Due to the relatively high level of labor absorption and small investment capital requirements, SMEs can flexibly adapt and respond to changing market conditions. This makes SMEs less vulnerable to various external changes. According to Karamouz et al. (2020); Li et al. (2020); Mani et al. (2020) SMEs are actually able to quickly capture various opportunities, for example to carry out



production that is import substitution and increase the fulfillment of domestic needs. Therefore, the development of SMEs can support economic diversification and accelerate structural changes, which are prerequisites for stable and sustainable long-term economic development.

According to Hong et al. (2019); Ivanov et al. (2018) said that the ability of SMEs to compete in the era of free trade, both in the domestic market and in the export market, is largely determined by two main conditions that need to be met. First, a conducive MSME internal environment, covering aspects of human resource quality, mastery of technology and information, organizational structure, management system, business culture/culture, capital strength, business networks with outsiders, and the level of entrepreneurship. Second, the external environment must also be conducive, which related to government policies, legal aspects, market competition conditions, socio-economic conditions, infrastructure conditions, public education levels, and changes in the global economy. According to Fanulene et al. (2022) Apart from these two conditions, the strategy of empowering SMEs to be able to enter the global market is very important for ensuring the survival of SMEs. However, in its development, SMEs have limitations in various ways, including limited access to market information, limited market reach, limited working networks, and limited access to strategic business locations. For this reason, efforts are needed to increase MSME access to market information, business locations and business networks. to increase productivity and competitiveness.

According to Basheer et al. (2019); Buer et al. (2021); Dumitrascu et al. (2020) the effect of supply chain management on the performance of SMEs focusing on manufacturing and service SMEs. Research on large-scale SMEs was also conducted by Dumitrascu et al. (2020); Fanulene et al. (2022); Hong et al. (2019); Ivanov et al. (2018) on supply chain management, competitive advantage, and performance of manufacturing SMEs. Business competition is not only for large-scale SMEs, but also for small and medium-sized enterprises. According to Karamouz et al. (2020); Li et al. (2020); Mani et al.. (2020) SMEs performance needs to be measured to compare the performance of SMEs in the past and future periods. SMEs performance measurement is also used to map strategies to achieve certain targets. According to Hong et al. (2019); Ivanov et al. (2018) explained that the performance of SMEs was measured using two dimensions, namely operational performance and financial performance.

H1: Supply chain management has a significant effect on the performance of SMEs.

The competitive advantage in this research consists of product quality and competitive price. Previous research conducted by Dumitrascu et al. (2020); Fanulene et al. (2022); Hong et al. (2019); Ivanov et al. (2018) shows that supply chain management has a significant effect on competitive advantage. Effective supply chain management has the potential to increase competitive advantage. According to Basheer et al. (2019); Buer et al. (2021) Integrated supply chain management of supplier and customer relations, delay and quality is able to maintain and strengthen the competitiveness of SMEs in winning market competition. Based on this description, the second hypothesis in this study is as follows.

H2: Supply chain management has a significant effect on competitive advantage.

Lower prices, high quality, speed of delivery and product innovation are continuously proven to increase product sales and dominate market share. Competitive advantage develops from the value that SMEs are able to create for customers or buyers. The key to the success of SMEs in the midst of business competition lies in their ability to create competitive advantages. According to; Shou et al. (2018); Tseng et al. (2019); Zaid et al. (2018) shows that competitive advantage has a significant effect on the performance of SMEs. It can be explained that the better the competitive advantage of an SMEs, the better the performance of the SMEs will be. Based on this description, the third hypothesis in this study is as follows.

H3: Competitive advantage has a significant effect on the performance of SMEs.

Method

The method of this research is quantitative and the population in this study was SMEs and the sampling technique in this study used purposive sampling with a sample size of 150 SMEs owners. Data collection techniques used online questionnaires distributed through social media which were tested for validity and reliability. The data analysis tool used to answer the research hypothesis is SmartPLS 3.0. with the stages of testing the validity, reliability, coefficient of termination and hypothesis testing

H1: Supply chain management has a significant effect on the performance of SMEs.

H2: Supply chain management has a significant effect on competitive advantage.

H3: Competitive advantage has a significant effect on the performance of SMEs.

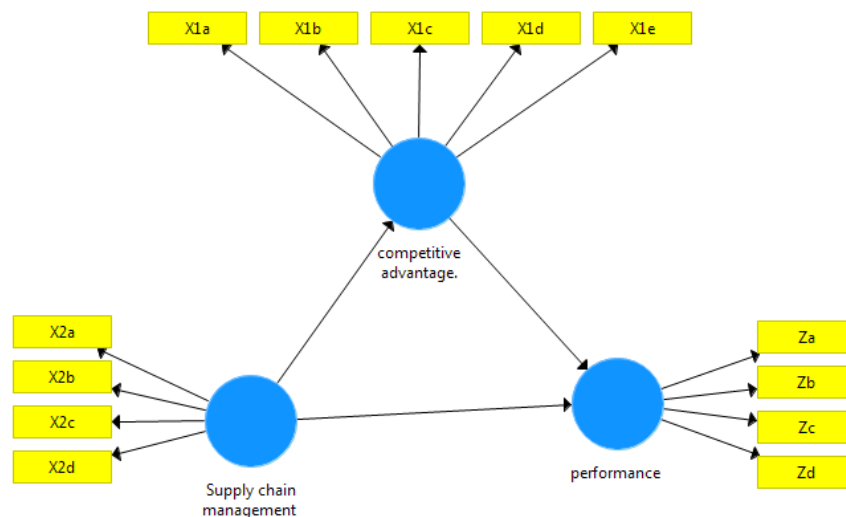


Fig 1. Research Model

Result and Discussion

The evaluation of the PLS model is divided into two, namely as follows. (1) Evaluation of the outer model, including the value of outer loading > 0.5 (ideally more than 0.7), average variance extracted (AVE) > 0.5, and composite reliability > 0.8. (2) Evaluation of the inner model, including the value of latent variable correlations (valid when $r > 0.5$) and path coefficients (if r is valid, then path coefficients are significant). The variables in this study consisted of one exogenous variable, namely supply chain management practices and two endogenous variables, namely competitive advantage and SME performance.

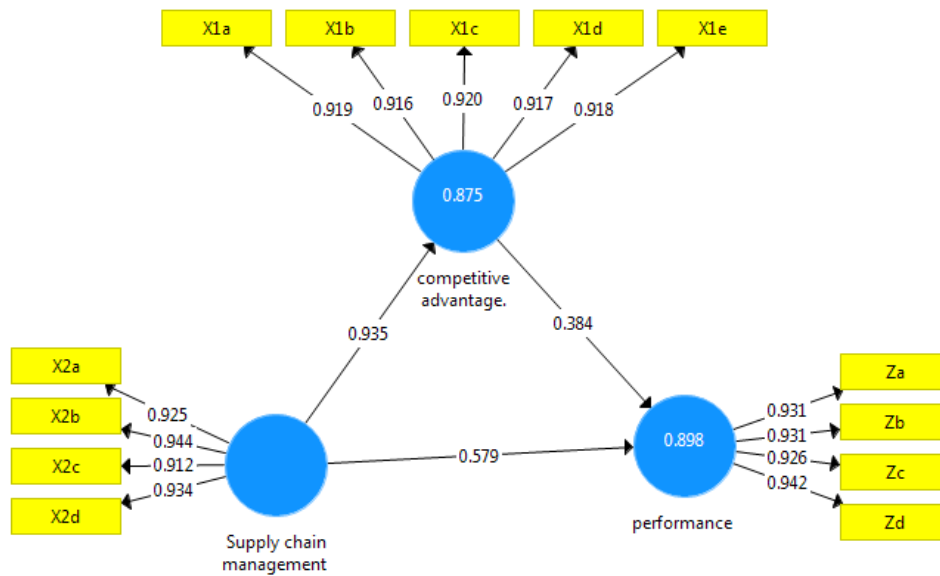


Figure 2. Convergent Validity Testing

Based on the estimation results of the PLS model in the picture above, all indicators have a loading factor value above 0.5 so that the model has met the convergent validity requirements.. The value of loadings, cronbach's alpha, composite reliability and AVE for each complete construct can be seen in table 1 and figure 2.

Table 1. Cronbach's Alpha, Composite Reliability, and Average Variance Extracted (AVE)



	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Supply chain management	0.947	0.948	0.962	0.863
competitive advantage.	0.953	0.954	0.964	0.843
performance	0.950	0.950	0.964	0.869

The reliability test results in table 1 above show that all constructs have composite reliability and Cronbach's alpha values greater than 0.7 (> 0.7). In conclusion, all constructs have met the required reliability

R-square Testing

The R Square value and the significance test value are obtained as shown in the table below:

Table 2. R Square

	R Square	R Square Adjusted
competitive advantage.	0.875	0.873
performance	0.898	0.896

The R2 value of the SMEs performance construct is 0.898, which means 89.8% performance are described by competitive advantage and supply chain management by 89.8%, the remaining 10.2% is explained by other constructs outside this study. The R2 value of the competitive advantage is 0.875, which means 87.5% performance are described by supply chain management by 87.5%, the remaining 12.5% is explained by other constructs outside this study.

Hypothesis testing

Hypothesis testing is carried out based on the findings of the inner model, which comprises the r-square output, parameter coefficient, and t-statistic, according to Hair et al. (2017). To determine if a hypothesis may be accepted or rejected by looking at the significant value between the constructs, t-statistics, and p-values, among other things. SmartPLS (Partial Least Square) 3.0 software was used to conduct the hypothesis testing for this study. The t-statistic > 1.96 was utilized in this investigation, with a significance threshold of p-value 0.05 (5 percent) and a positive beta coefficient.

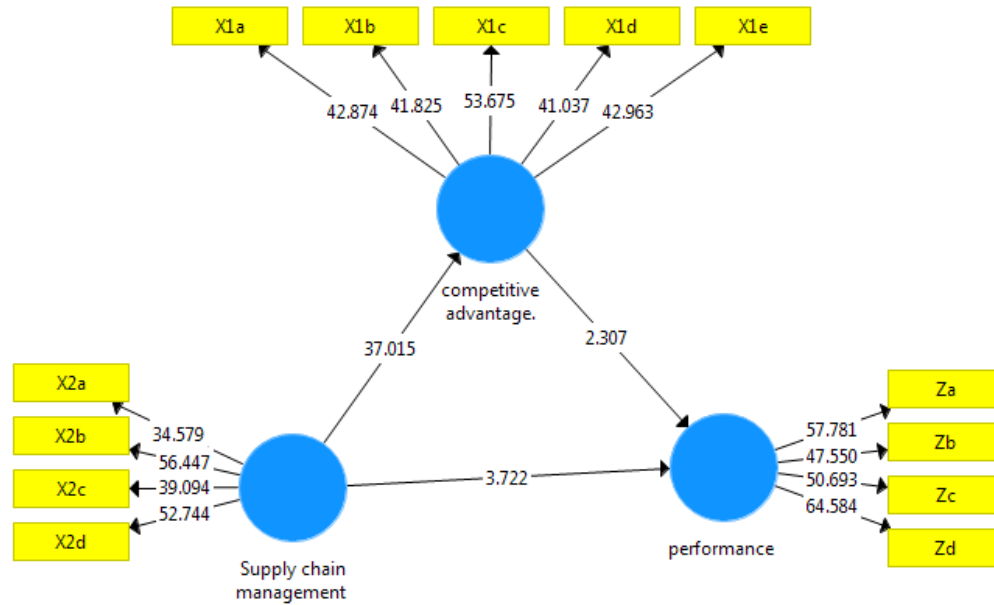


Figure 3. Hypotheses Testing

The results of hypothesis testing for all variables that have a direct effect are shown in the table 3 below

Table 3: Hypothesis Result of the Structural Model

	Original Sample (O)	Standard Deviation...	T Statistic...	P Values
Supply chain management -> competitive advantage.	0.935	0.025	37.015	0.000
Supply chain management -> performance	0.579	0.156	3.722	0.000
competitive advantage. -> performance	0.384	0.166	2.307	0.021

The Effect of Supply Chain Management on the Performance of SMEs

The results of hypothesis testing indicate that supply chain management (MRP) has a significant effect on the performance of SMEs. These results indicate that the better supply chain management practices are implemented, the better the performance of SMEs, in this case is the performance of SMEs. Supply chain management is a process of supply chain activities starting from the provision of raw materials to the process to satisfied customers. According to Permana et al. (2022); Purwanto, A. (2022); Purwanto et al. (2021) This satisfied customer causes the performance of SMEs both financially and operationally to increase. SMEs in this case also prioritize customer satisfaction by always paying attention to customer needs so that SMEs also innovate on products to increase customer satisfaction. The results of this study are in line with the results of research According to Purwanto et al. (2020);Priadana et al. (2021); Rudyanto et al. (2021); Saragih et al. (2020); Shou et al. (2018); Tseng et al. (2019); Zaid et al. (2018)



The Influence of Supply Chain Management on Competitive Advantage

The results of the second hypothesis test indicate that supply chain management (MRP) has a significant effect on competitive advantage. This can be interpreted that the better supply chain management is implemented, the better the competitive advantage possessed by SMEs will be. According to Karamouz et al. (2020); Li et al. (2020); Mani et al.. (2020) SMEs in practice always maintain good relations with raw material suppliers in order to get more affordable prices and stable supply. SMEs are also always able to meet customer needs in a timely manner because they have an always available supply of raw materials.

The results of this study are in line with the research conducted by According to Saragih et al. (2020); Shou et al. (2018); Tseng et al. (2019); Zaid et al. (2018)

The Effect of Competitive Advantage on the Performance of SMEs

The third hypothesis test shows the result that competitive advantage has a significant effect on the performance of SMEs. This means that the better or higher the competitive advantage possessed by SMEs, the performance of SMEs will also be better. SMEs already have a competitive advantage so that they can meet customer needs. This needs to be done to improve MSME performance both financially and operationally. According to Karamouz et al. (2020); Li et al. (2020) SMEs need to improve the quality and trust of customers in the future in order to achieve sales and profit targets, so that MSME performance will also get better and increase. The results of this study are in accordance with previous research conducted by Rudyanto et al. (2021); Saragih et al. (2020); Shou et al. (2018); Tseng et al. (2019); Zaid et al. (2018)

Business competition between companies, both nationally and internationally, is getting tighter, which encourages SMEs to continue to innovate to produce maximum performance. One way that SMEs can do to win market share is to have a competitive advantage which is a sign that SMEs are different or superior to others / SMEs also need to implement optimal supply chain management. According to Karamouz et al. (2020); Li et al. (2020); Mani et al.. (2020) the application of supply chain management is able to reduce the effect of business competition because supply chain management can generate competitive advantage. The existence of supply chain management is expected to be able to respond quickly, efficiently, and effectively to all changes in the market, so that supply chain management will increase the competitiveness and performance of SMEs. The advancement of the internet and changes in people's shopping behavior have been felt in real terms now. The Indonesian people enjoy the convenience offered by the platform for buying and selling goods that can be done online. Besides being easy and fast for buyers, online buying and selling activities also have several advantages for sellers. If selling in the past could not reach a market that is too broad, with the internet, you can easily market your products more broadly. So, you must be able to use technology to be able to implement online marketing strategies. The ability to take advantage of this will give you an advantage over other business actors who have not been able to do so.

Conclusion

The conclusion of this research is as follows. Supply chain management practices have a direct and positive effect on the competitive advantage of SMEs products. Supply chain management practices have a direct and positive effect on SMEs performance. Competitive advantage of SMEs products. direct and positive effect on the performance of SMEs. This study has limitations, namely the number of samples is



still limited, even though it meets the number of samples in processing using SmartPLS. This is also due to the limited time of the study. Further research can also be done by adding other variables such as innovation and organizational culture. Further research can also be carried out on other types of SMEs. Competition is identical with relationships with other businesses that have almost the same type or product category. Our products are often referred to as competitors' products. To win the competition, you must be able to create products with better quality. The quality of goods and services is one of the important factors that are assessed by consumers before making a purchase or repurchase. Moreover, in this era of the internet, other people's reviews about the quality of your product are highly considered by other potential buyers. Regardless of the scale of the business, a quality product is something that a business must strive for. This is done to satisfy consumer needs and also to have superior value compared to similar products.

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