

Supply Chain Management, Competitive Advantage on Performance of Sme Companies in Bandung, West Java

Wien Dyahrini¹

Widyatama University
wien.dyahrini@widyatama.ac.id

Muhammad Syahri Mauludin²

Widyatama University
muhammad.syahri@widyatama.ac.id

Chaerul Ichsan³

Widyatama University
ichsan.chaerul@widyatama.ac.id

Obsatar Sinaga⁴

Padjadjaran University

Abstract

This study aims to determine how the relationship and influence of supply chain management variables, competitive advantage on company performance in small and medium enterprises (SMEs) in the Bandung area. For the population, SMEs are taken that have been registered and received guidance from the Department of Cooperatives and SMEs in Bandung. The company population is 89 SME companies. The research sample is 69 SME companies. The research method used in sampling is using observation and questionnaires. This type of data uses primary and secondary data collected in the study. The results show that: Supply chain management has a positive and significant effect on company performance in SMEs in the Bandung Municipality and Bandung Regency, Competitive advantage has a positive and significant impact on the performance of SME companies in the Bandung Municipality and Bandung Regency, and Supply chain management and competitive advantage have an effect positive and significant impact on the company's performance in SMEs in the municipality of Bandung and Bandung regency.

Keywords

Supply chain management, Competitive advantage, Company Performance

To cite this article: Dyahrini, W.; Mauludin, M, S.; Ichsan, C.; and Sinaga, O. (2021) Supply Chain Management, Competitive Advantage on Performance of Sme Companies in Bandung, West Java. *Review of International Geographical Education (RIGEO)*, 11(5), 820-828. doi: 10.48047/rigeo.11.05.77

Submitted: 18-10-2020 • **Revised:** 22-12-2020 • **Accepted:** 28-02-2021

Introduction

Based on conditions of increasingly fierce competition and unlimited consumer demand, so that every company always needs supplies. Without inventory, the company will be faced with the risk that at one time it cannot meet the demands of its customers and will lose the opportunity to get the profits that should be obtained. This research was conducted at a trading company in Bandung which is engaged in textiles. Trading company is a company that exchanges goods or services from one party to another, while the textile itself is a flexible material made of woven yarn. In other words, the company is a company that exchanges goods from one party to another in the form of finished fabrics. This company provides many types of fabrics that are needed by customers, by looking at fashion developments, this trading company makes a lot of supplies to meet customer needs. In mid-2018, the trading company experienced an excess of inventory compared to its sales realization, causing a significant difference.

The increasingly fierce business competition between companies encourages companies to produce the best performance. Companies must be able to create competitive advantages in order to generate economic value for the company that is better than competitors (Barney & Hesterly, 2019). Companies need to implement supply chain management optimally. The application of supply chain management is able to reduce the effects of competition in the market because supply chain management can produce a company's competitive advantage. Companies can achieve competitive advantage by performing optimal and good supply chain management. The company produces better performance than competitors because supply chain management is able to minimize the overall cost of meeting and serving consumer needs. Supply chain management is all parties involved, either directly or indirectly, in fulfilling consumer orders and requests (Chopra & Meindl, 2012). All parties involved do not only consist of producers or suppliers, but also involve distributors, storage places, sellers and consumers.

The implementation of supply chain management is very necessary for companies to improve industrial competitiveness which has an impact on company performance. Companies need to consider supply chain issues to ensure that supply chain management supports the company's strategy (Malyar, Polishchuk, Sharkadi, & Polishchuk, 2020). The company's strategy is used in the development of the company's operations in order to compete and dominate the existing position in the market. The competitive advantage strategy in the company is expected to maintain its competitive position in the face of competitors and can improve the company's performance in accordance with the target. With supply chain management and competitive advantage are expected to be variables that can maximize the company's performance. The implementation of this system means that all activities are carried out on time, involving related components such as overstock problems that occur in trading companies.

Theoretical Review

Supply Chain Management

Supply chain management is the coordination of the entire supply chain activity, starting with raw materials and ending with satisfied customers. Supply chain management includes suppliers, manufacturing companies or service providers, distributor companies, wholesalers or retailers who deliver products or services to end consumers (Heizer, Render, Munson, & Sachan, 2017). Supply chain management is a set of approaches to streamline the integration of suppliers, manufacturers, warehouses and shops, so that goods are produced and distributed in the right amount of time, at the right time and in the right location to minimize costs and provide service satisfaction to consumers (F. Chen, Drezner, Ryan, & Simchi-Levi, 2000). Supply chain management is relationship management from upstream to downstream or from supplier to consumer to provide more value to customers and reduce overall supply chain costs. (Christopher, 1999).

Supply Chain Management is an activity of processing raw materials into goods in process or semi-finished goods and finished goods then sending these products to consumers through the distribution system. This activity includes a purchasing function that deals with suppliers and distributors Hill (2005).

Fajriah and Themba (2016) reveal that Supply Chain Management is a system where organizations distribute their production goods and services to their customers. This chain is also a network of various organizations that are interconnected and have the same goal, namely as best as possible to organize the procurement of goods, the term Supply Chain Management includes the process of changing these goods, for example from raw goods to finished goods. The strategy for achieving high competitiveness is highly dependent on efficiency and productivity between functional areas within the company, to be more responsive to consumer needs and market demands.

Competitive Advantage

Competitive advantage is the company's ability to meet customer needs effectively and efficiently with products or services that have more value or at a lower cost (Porter, 2015). The ability of a company to achieve economic benefits above the profits that can be achieved by competitors in the market in the same industry. Companies that have competitive advantages always have the ability to understand changes in market structure and are able to choose effective marketing strategies. Competitive strategy is intended to maintain the level of profit and position when facing competition (Goyal & Cárdenas-Barrón, 2003).

Company Performance

Company performance is a view of the overall state of the company over a certain period of time, is a result or achievement that influenced by the company's operational activities in utilizing its resources. Performance is a general term used for part or all of the actions or activities of an organization in a period with reference to standard amounts such as past or projected costs, on the basis of efficiency, accountability or management accountability and the like (Quezada, Reinaldo, Palominos, & Oddershede, 2019). Performance is the ability to work as indicated by the results of work. Goyal and Cárdenas-Barrón (2003) put forward the definition of performance as follows: "Company performance is something produced by a company within a certain period with reference to established standards. Company performance should be a measurable result and describe the empirical condition of a company of various agreed sizes. Company performance refers to how well a company is market-oriented and its financial goals.

Hypothesis Development

Previous research identified that various dimensions in supply chain management such as strategic supplier partnerships, information quality, and customer relations have an influence on several aspects of company performance. Effective and optimal supply chain management can increase productivity, market share and customer growth (C.-J. Chen, 2019). Research by Burgess, Singh, and Koroglu (2006) states that effective supply chain management has the potential to improve company performance by using five supply chain dimensions, namely: suppliers' relationship, customer relationship, level of information sharing, level of information and postponement.

The implementation of good supply chain management will be able to improve the company's performance, the quality and quality produced by suppliers affects the company in its performance both in production and sales (Khaddam, Irtaimah, & Bader, 2020). From the description above, the existing hypothesis is as follows:

H1: Supply chain management has a significant influence on company performance.

Research by C.-J. Chen (2019) concludes that competitive advantage has a positive and significant effect on company performance. Lower prices, high quality, speed of delivery and product innovation are continuously proven to increase product sales and dominate market share. Product sales and market share control are benchmarks for companies to achieve market-oriented company performance and financial goals.

Competitive advantage develops from the value that companies are able to create for customers or buyers using the dimensions of competitive advantage consisting of price, quality, delivery dependability, time to market, and product innovation Burgess et al. (2006).

H2: Competitive Advantage has a significant effect on company performance

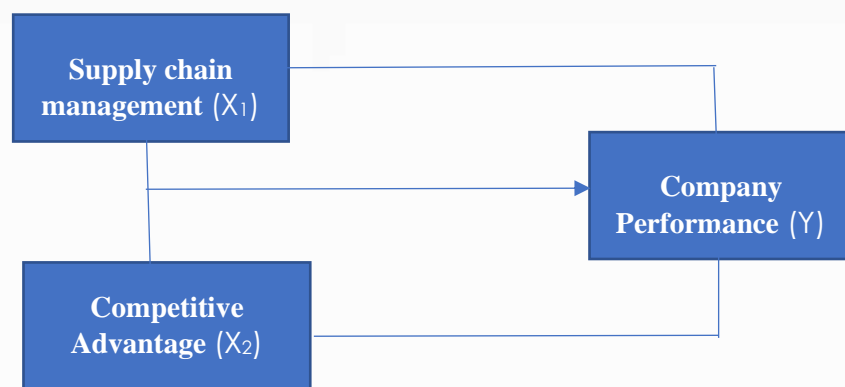
Research by Burgess et al. (2006) states that effective supply chain management has the potential to increase competitive advantage. It is proven by integrated supply chain management starting from relationships with suppliers and customers, delays and quality is able to maintain and strengthen its competitiveness in winning the competition in the market.

Khaddam et al. (2020) states that the implementation of good supply chain management in manufacturing companies will be able to increase competitive advantage. Supply chain management by establishing relationships with suppliers and consumers will be able to increase competitive advantage.

H3: Supply chain management and competitive advantage have a significant influence on company performance.

Research Model

The research model in Supply Chain Management research, the effect of Competitive Advantage on the performance of trading companies in the Bandung area, West Java is stated in the following figure.



Thought Framework Image

Research methods

The object of this research is Small and Medium Enterprises in the Bandung Region in 2020 which are registered to receive guidance from the Bandung Municipal SME Service. The population in this study were all registered SMEs and a sample of 87 companies was taken. Types of Data, the data used in this study is primary data, primary data is data obtained from the first source either from individuals such as the results of interviews or the results of filling out questionnaires (Sekaran, 2006). The primary data is in the form of answers to statements regarding supply chain management practices, competitive advantage and company performance.

Research Results and Discussion

Description of Respondent Characteristics

Respondents in this study are managers or owners of all SMEs in the Bandung area which have been registered in the SME Database Directory of Bandung Municipality. There were 87 registered respondents, but the sample used was 69 questionnaires.

Respondent Status

The results of distributing questionnaires obtained data on the characteristics of respondents based on the status of respondents which are described in table 1 as follows:

Table 1.
Characteristics of Respondents

Status of Respondents	Total	Percentage (%)	Information
Owner	65	94,20	Municipality&Regency
Manager	4	5,80	Municipality&Regency
Total	69	100	

Based on the table above, it is found that most of the respondents are business owners, which is 94.20%, while the rest are business managers at 5.80%.

Table 2.
Based on Business Length

Length of Business (Years)	Total (person)	Percentage (%)	Information
0,1 sd 5,0	12	17,39	Municipality&Regency
5,1 – 10,0	30	43,47	Municipality&Regency
Above 10,1	27	39,13	Municipality&Regency
Total	69	100	

Considering the table above, the results of SMEs with business durations of up to 5 years are 17.39%, between 5.1 years to 10 years are 43.47%, and above 10.1 years are 39.13%.

Table 3.
Number of Employees

Employee length of service	Total	Percentage (%)	Information
1 sd 5	32	46,37	Municipality & Regency
6 sd 10	23	33,34	Municipality & Regency
>11	14	20,29	Municipality & Regency
Total	69	100	

Paying attention to the table above, it is found that 46.37% of employees who worked 1 to 5 years, with a length of work from 6 years to 10 years were 33.34%, and the rest who worked over 11 years were 20.29%.

Instrument Quality Test Results

Validity test is used to show the extent to which an appropriate measuring instrument measures the object under study. Valid or not an instrument can be known by comparing the product moment person correlation index with a significance level of 5%. If the significance of the correlation result is less than 0.05 (5%), then it is declared valid and vice versa if the significance of the correlation result is greater than 0.05 (5%) then it is declared invalid.

Validity Test Results

Based on the results of the validity test, it shows that all of the questions given are valid, because the significance value of $p < 0.05$. This means that all of the question items are good for measuring supply chain management variables, competitive advantage and company performance that have met the provisions.

Reliability Test Results

Based on the results of the reliability tests carried out, the results obtained for 3 variables, namely supply chain management, competitive advantage and company performance, all of which

were declared reliable because Cronbach's Alpha was above 0.6. This means that the variables of supply chain management, competitive advantage and company performance have good score consistency for each item.

Classic Assumption Test Results

Normality Test.

The normality of the data was tested using the One-sample Kolmogorov-Smirnov and the residuals were normally distributed if the significance level showed a value greater than 0.05. This normality test is presented in the following table:

Table 4.
Normality Test

Normality Test Results Unstandardized Residual	Conclusion
Asymp. Sig. (2- tailed) .217)	Normal Data

The normality of the data was tested using the One-sample Kolmogorov-Smirnov and the residuals were normally distributed if the significance level showed a value greater than 0.05. This normality test is presented in table 4 below:

Table 5.
Heteroscedasticity Test

Heteroscedasticity Test Results Model	Sig.	Conclusion
1 Supply Chain Management	.904	Non-Heteroscedasticity
Competitive Advantage	.408	Non-Heteroscedasticity

Table 6
Autocorrelation Test

Autocorrelation Test Results Model	DW	dU	4-dU	Description
1	1.696	1.666	2.334	There is no auto correlation problem

Predictor Variables: Competitive Advantage (X_2), Supply Chain Management (X_1)
Dependent Variable: Company Performance (Y)

Discussion

The Influence of Supply Chain Management on Company Performance

The first hypothesis is "Supply chain management has a significant influence on company performance". Based on the partial test results, it is obtained that the supply chain management variable has a positive and significant influence on the company's performance. So, the higher

the supply chain management, the better the company's performance. Because of its significant influence, supply chain management variables are important for SMEs to consider in improving their company's performance both financially and operationally. The results of this study are in accordance with research by C.-J. Chen (2019) which shows that supply chain management has a significant positive effect on company performance. So, the conclusion is that the first hypothesis is proven.

Supply chain management is the coordination of the entire supply chain activity, starting with raw materials and ending with satisfied customers. Supply chain management includes suppliers, manufacturing companies or service providers, distributor companies, wholesalers or retailers who deliver products or services to end consumers (Heizer et al., 2017). SMEs in the Bandung Region have implemented supply chain management in maintaining good supplier relations which can improve their performance in achieving targeted costs and production levels. SMEs in the Bandung Municipality and Bandung Regency areas apply supply chain management in prioritizing customer satisfaction and finding out what customers want so that SMEs can achieve company performance in providing products that match customer perceptions and are able to cover the entire market scope. The results of this study are in accordance with previous research conducted by (C.-J. Chen, 2019; Khaddam et al., 2020; Li, Ragu-Nathan, Ragu-Nathan, & Rao, 2006) which state that supply chain management has a positive and significant effect on company performance.

The Effect of Competitive Advantage on Company Performance

The second hypothesis states "Competitive advantage has a significant effect on company performance". Based on the partial test results obtained that the competitive advantage variable has a positive and significant effect on company performance. So, the higher the competitive advantage, the higher the company's performance. Because of its significant influence, the competitive advantage variable is important to be improved and maintained in order to dominate the market and improve the company's performance.

SMEs need to pay attention to the quality and price of products or services to match customer perceptions and can achieve sales and profit targets so that company performance can increase. SMEs provide products to order and can change offerings according to the wishes of the client to improve the company's performance in order to be able to provide products or services according to customer perceptions.

So that by increasing the competitive advantage the company can achieve the level of sales, profits, production and costs. So, the higher the competitive advantage, the better the performance of SMEs. The results of this study are in accordance with previous research conducted by (C.-J. Chen, 2019; Khaddam et al., 2020; Li et al., 2006) which state that supply chain management has a positive and significant effect on competitive advantage. So, the conclusion is that the second hypothesis is proven.

The influence of supply chain management and competitive advantage has an effect on company performance

It is stated that supply chain management and competitive advantage are able to influence the company's performance. Based on the results of the tests conducted, it is shown that supply chain management and competitive advantage together have an influence on company performance in SMEs in the Bandung Municipality area and also in Bandung Regency. Thus, the third hypothesis is proven and accepted.

The results of Dewi (2020) conclude that supply chain management has a greater influence on company performance if it is through competitive advantage in manufacturing companies in East Java. The results of the study which show that the indirect effect is greater is supported by the understanding of managers in manufacturing companies in East Java regarding the application of supply chain management that is guided by increasing competitive advantage. While SMEs in the municipality of Bandung and Bandung district prioritize the implementation of supply chain management in terms of establishing relationships with suppliers, prioritizing customer satisfaction, and sharing information with suppliers that can improve company performance. It is stated that supply chain management and competitive advantage are able to influence the company's performance. Based on the results of the tests conducted, it is shown that supply chain management and competitive advantage together have an influence on company

performance in SMEs in the Bandung Municipality area and also in Bandung Regency. Thus, the third hypothesis is proven and accepted.

The results of Dewi (2020) conclude that supply chain management has a greater influence on company performance if it is through competitive advantage in manufacturing companies in East Java. The results of the study which show that the indirect effect is greater is supported by the understanding of managers in manufacturing companies in East Java regarding the application of supply chain management that is guided by increasing competitive advantage. While SMEs in the municipality of Bandung and Bandung district prioritize the implementation of supply chain management in terms of establishing relationships with suppliers, prioritizing customer satisfaction, and sharing information with suppliers that can improve company performance.

Conclusions

From the results of the above discussion, it is found that: 1. Supply chain management has a positive and significant effect on company performance in SMEs in the Bandung municipality and Bandung regency. 2. Supply chain management has a positive and significant impact on competitive advantage in SMEs in the Bandung Municipality and Bandung Regency areas. 3. Supply chain management and competitive advantage have a positive and significant impact on company performance in SMEs in the Bandung Municipality and Bandung Regency areas.

Managerial Implementation.

To be able to realize the results of this study, business owners and managers should be able to operationalize supply chain management and competitive advantage more optimally in order to be able to have an influence on company performance. So that this will have the effect of decreasing costs in operational activities, as well as always innovating to introduce new products which in turn will be able to increase profits for SME entrepreneurs in the Bandung municipality and Bandung district.

Reference

- Barney, J. B., & Hesterly, W. S. (2019). *Strategic Management and Competitive Advantage*: Pearson. Retrieved from <https://korean.solbridge.ac.kr:449/site/main/down/MBA/BUS611%20Strategic%20Management.pdf>
- Burgess, K., Singh, P. J., & Koroglu, R. (2006). Supply chain management: a structured literature review and implications for future research. *International journal of operations & production Management*, 26(7), 703-729. doi:<https://doi.org/10.1108/01443570610672202>
- Chen, C.-J. (2019). Developing a model for supply chain agility and innovativeness to enhance firms' competitive advantage. *Management Decision*, 57(7), 1511-1534. doi:<https://doi.org/10.1108/MD-12-2017-1236>
- Chen, F., Drezner, Z., Ryan, J. K., & Simchi-Levi, D. (2000). Quantifying the bullwhip effect in a simple supply chain: The impact of forecasting, lead times, and information. *Management science*, 46(3), 436-443. doi:<https://doi.org/10.1287/mnsc.46.3.436.12069>
- Chopra, S., & Meindl, P. (2012). *Supply Chain Management: strategy, planning, and operation*. Retrieved from <https://www.scholars.northwestern.edu/en/publications/supply-chain-management-strategy-planning-and-operation-4>
- Christopher, M. (1999). *Logistics and Supply Chain Management: Strategies for Reducing Cost and Improving Service (Second Edition)*. *International Journal of Logistics Research and Applications*, 2(1), 103-104. doi:<https://doi.org/10.1080/13675569908901575>
- Dewi, L. (2020). Increased Competitive Advantage and Supply Chain Management Improve Company Performance (Case Study in Mild Steel Rollforming Companies in East Java). *KnE Social Sciences*, 128-139. Retrieved from <http://kne-publishing.com/index.php/KnE-Social/article/view/6389>
- Fajriah, Y., & Themba, O. S. (2016). Effect of Supply Chain Management: Just in Time for Competitiveness and Corporate Performance in Industrial Area Manufacturing Company

- in Makassar. *Information Management and Business Review*, 8(2), 20-25. doi:<https://doi.org/10.22610/imbr.v8i2.1269>
- Goyal, S. K., & Cárdenas-Barrón, L. E. (2003). Note on: An optimal batch size for a production system operating under periodic delivery policy. *Computers & industrial engineering*, 44(1), 191-192. doi:[https://doi.org/10.1016/S0360-8352\(02\)00193-6](https://doi.org/10.1016/S0360-8352(02)00193-6)
- Heizer, J., Render, B., Munson, C., & Sachan, A. (2017). *Operations management: sustainability and supply chain management*, 12/e. In: Pearson Education.
- Hill, T. (2005). *Operations management*. 683--1686. Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download;jsessionid=DDB090C45E097652C7DE27E985B1B1A5?doi=10.1.1.727.5849&rep=rep1&type=pdf>
- Khaddam, A., Irtaimeh, H., & Bader, B. (2020). The effect of supply chain management on competitive advantage: The mediating role of information technology. *Uncertain Supply Chain Management*, 8(3), 547-562. doi:<http://dx.doi.org/10.5267/j.uscm.2020.3.001>
- Li, S., Ragu-Nathan, B., Ragu-Nathan, T., & Rao, S. S. (2006). The impact of supply chain management practices on competitive advantage and organizational performance. *Omega*, 34(2), 107-124. doi:<https://doi.org/10.1016/j.omega.2004.08.002>
- Malyar, M., Polishchuk, V., Sharkadi, M., & Polishchuk, A. (2020). *Model of Operation Management Systems Risk Assessment*. Paper presented at the 2020 IEEE 15th International Conference on Computer Sciences and Information Technologies (CSIT). doi:<https://doi.org/10.1109/CSIT49958.2020.9321930>
- Porter, M. (2015). *The competitive advantage of the inner city*: Routledge. Retrieved from <https://www.taylorfrancis.com/chapters/edit/10.4324/9781315748504-50/competitive-advantage-inner-city-michael-porter>
- Quezada, L. E., Reinao, E. A., Palominos, P. I., & Oddershede, A. M. (2019). Measuring performance using SWOT analysis and balanced scorecard. *Procedia Manufacturing*, 39, 786-793. doi:<https://doi.org/10.1016/j.promfg.2020.01.430>