

Uncertain Supply Chain Management

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Analysis of the supply chain response power, practices and firm capabilities on competitive advantage and performance

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ABSTRACT

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This research was conducted by analyzing the factors that affect company performance with supply chain management practices, supply chain responsiveness, company capabilities and competitive advantage variables as intervening variables. This research method was a quantitative survey and the object of this research consisted of 460 distributors, at the level of lubricants retailers, in Indonesia determined by simple random sampling. The research data was obtained by distributing online questionnaires through social media and the questionnaire was designed using open statements with a Likert scale of 2 to 7. The analysis technique used was Structural Equation Modeling with validity test analysis, hypothesis testing using structural equation modeling techniques with smartPLS 3.0 software as a tool to assist data processing. The results of this study indicate that the company's ability had a positive and significant effect on the company's competitive advantage, supply chain management practices had a positive and significant effect on advantage, supply chain responsiveness had a positive and significant effect on competitive advantage, competitive advantage had a positive and significant effect on company performance and finally supply chain management had a positive and significant impact on company performance.

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1. Introduction

In this era of the industrial revolution, competing companies used various strategies to reach a point where they were able to dominate one market. To reach that point, it is certainly not possible for a company to continue to compete with other competitors in a wide-reaching market using only one strategy and not innovating (Alam, 2022). Companies must be able to innovate at any time and under any conditions. If the company does not respond quickly to the current market situation and does not act immediately, then the position of the company is threatened to be far behind and it is difficult to maintain its position in the market. In facing increasingly fierce business competition, companies must research and implement adequate strategies to overcome the crisis the company is currently facing and achieve efficiency so that the company can control market competition and maintain its existence so that it is not cornered by competing companies. Implementing the right supply chain management process is one of the strategies to win market competition. Supply chain management is part of a crucial business process. If it is not managed properly, it will have an impact on the company's profit and loss for several reasons disrupted business operations (Arijanto, 2022).

Supply chain management is the integration of material procurement activities, the conversion process from semi-finished products to final products and followed by the delivery process to the final consumer and then followed by other processes such as the provision of raw materials, order tracking, dissemination of information, measuring a performance, and new product development. The supply chain management process involves components starting from suppliers, manufacturers,

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warehouses or distribution centers, and end users and aliases consumers. Companies whose business activities are engaged in the industrial sector that produces a product or service must have a well-managed supply chain management (SCM) since SCM plays an important role in improving the quality of products and services to meet customer needs and demands (El-Garaihy et al., 2022). The goal of SCM activities is that companies can operate efficiently, minimize products that accumulate to increase the burden of warehouse storage costs, produce quality products with the lowest possible production costs to maximize profits and win market competition. Changes in the dynamic business environment require companies to be sensitive and alert under any circumstances. Especially when competition is getting tougher on a global scale, it is necessary for companies to think quickly and precisely about what business strategy is needed and how to restructure the company's business processes in today's increasingly competitive business world considering that a slight gap will benefit competing companies (Fu et al., 2022).

Lubricant industry is heavily influenced by supply chain factors. Lubricants are a product that is no less important when compared to fuel. The lubricant industry is one of the strategic industries that is experiencing quite rapid growth, where the demand for lubricant products increases every year. This condition is driven by the increasing number of motorized vehicles which require this product as well as the development of the industrial sector which includes production and construction. According to Dikshit and Trivedi (2012), the problem in this study is supported by the gap phenomenon, namely a decrease in sales turnover of a distributor of one lubricant brand by 3% per year, this problem arises due to increasingly fierce competition and potential demand which would disappear marked by a decrease in turnover or sales figures, but conditions the actual market can still be developed in line with the increasing growth rate of motorized vehicles and users in the industrial environment. The problems in this study are also supported by differences in the results of previous research (research gap), which examines the effect of supply chain management practices on company performance, where Alsmairat and Aldakhil (2022) and Anatan (2014) showed a positive effect while Singh et al. (2010) showed a negative effect and tested the effect of the company's ability and supply chain responsiveness in increasing the competitiveness of companies and Al-tarawneh and Al-Shourah (2018) showed an insignificant relationship.

2. Literature Review

2.1 Company performance

Company performance is the result of management activities, the parameters that are often used to assess the performance of a company are carried out using an approach in which financial information is taken from financial reports or other financial reports. In this regard, measurement of financial performance has been carried out by Ibrahim and Hamid (2014). Performance appraisal aims to determine the effectiveness of the company's operations. Non-financial performance measures the performance using non-financial measurement units. The information used in measuring financial performance is financial information, management accounting information, and financial accounting information such as profit before tax, return on investment, and so on. In relation to performance measurement, Golicic and Smith (2013) state that performance measurement is based on market performance. This has several weaknesses such as the number of incidents that are not controlled. Uncertainty leads to market price risk, and this can also lead to uncontrollable conditions and provides invalid feedback on quality. In addition, the use of internal performance also has weaknesses as a basis for measurement (Al-Tarawneh & Al-Shourah, 2018).

2.2 Competitive Advantage

Competitive advantage is something that makes an entity's goods and services superior to all existing choices or a situation when a company has a better offer than its competitors do not have. This term is very commonly used in business, the strategy also applies in organizations, countries, or individuals in a competitive environment (Mukhsin et al., 2022). By knowing the competitive advantage, a company will have more opportunities to get consumer attention. Some examples of competitive advantages that we usually encounter include, more economical prices, bonuses given in the form of products and services. Competitive advantage is the output, not always in the form of the final product or output produced, but also a competent workforce so that it could have an impact on the final product. For example, a retailer willing to offer the lowest price has a competitive advantage over a retailer with higher prices. Of course, this low price will be very attractive to consumers compared to the standard price. According to Reklitis et al. (2021), competitive advantage is a dynamic process, not just seen as a result. This is because competitive advantage comes from the many different activities carried out by a company in designing, producing, marketing, delivering, and supporting its products. From some of the definitions above, it can be concluded that competitive advantage is a condition owned by a company which exceeds its competitors. Hwihanus et al. (2022) revealed that in today's highly competitive environment, the goal of every organization is to beat the competition and win new customers. Individuals are the holders of knowledge to generate innovation for the company. Thanks to their personal creativity, knowledge, skills and abilities, it is possible to generate new innovative ideas that will help companies achieve competitive advantage. Meanwhile, there are other factors that support the company's internal competitiveness, namely motivation, finance, and support from company leaders in building the company's internal competitiveness (Rizki et al., 2022). Meanwhile, Ondiek et al. (2013) conveyed the company's ability to innovate, which can create the latest products and services, so that the company's products are in demand by the market. This means that the company's competitiveness is rooted in the

company's ability to continue to be developed by internal resources which include the support of company leaders, financial strength, internal motivation to develop strengths, and innovations that are continuously created and have competitiveness in the market (Yusuf & Soediantono, 2022)

In addition, it was revealed by Sukati et al. (2012) that competitive advantage is an advantage over competitors obtained by offering consumers greater value, either by offering lower prices or by providing more benefits to consumer services at higher prices. Meanwhile, according to Golicic and Smith (2013) the notion of competitive advantage is the ability gained through the characteristics and resources of a company to have a higher performance than other companies in the same industry or market. Supported by Choi and Hwang (2015), the goal of every business is to beat the competition and win new customers in a competitive environment.

2.3 Supply Chain Management

In the manufacturing industry, the main activity is to convert various raw materials and supporting materials into finished goods and distribute them to customers (Joshi & Sharma, 2022). By carrying out these activities, what is called the supply chain has basically been formed. However, for a manufacturing company, supply chain activities need to be carried out effectively and efficiently so that professional management is needed in its implementation. Supply chain management is a series of activities that include coordination, scheduling and control of procurement, production, supply and delivery of products or services to customers which includes daily administration, operations, logistics and information processing from customers to suppliers. Supply chain management is a mechanism that connects all concerned parties and activities involved in converting raw materials into finished goods (Permana & Soediantono, 2022). The party concerned or the activity in question is responsible for delivering finished goods produced to customers at the right time and place in the most efficient way. So basically, supply chain management is a management branch that involves suppliers, factories or manufacturers, logistics providers and of course most of all are customers (Choi & Hwang, 2015).

According to Joshi and Sharma (2022), supply chain is a network of companies that work together to create and deliver an item to the end user, it can be said that the supply chain is a physical network of companies involved in supplying goods, producing goods, and sending them to end users and achieving an effective supply chain, companies must collectively make decisions regarding the 5 (five) main supply chain driving processes, namely the production process, inventory management, transportation selection, location, and information flow. Supply Chain Management (SCM) is a term that has been widely used and developed since the 1980s. But many people interpret SCM as a substitute for the term logistics. But the real meaning is broader. SCM is the integration of several key business processes from end users to suppliers that provide products, services and information that add value to customers and stakeholders. A supply chain includes all stages, directly or indirectly, in fulfilling customer demands. The supply chain includes not only manufacturers and suppliers, but also those involved in transportation, warehousing, retailers, and the customers themselves. In every organization, the supply chain includes all the functions involved in fulfilling customer requirements. Another goal is to ensure all activities from production, storage to distribution. Thus, companies can get more efficient costs and activities. If it is not regulated, then the whole process can fall apart, and it will not bring profit to the company. Efficiency can also be achieved by calculating costs and activities. For example, from the inventory of raw materials, production processes to finished goods. Thus, business processes can run smoothly and certainly efficiently and effectively (Hwihanus et al. ,2022).

Supply chain is a series of business processes that connect several actors to increase the added value of raw materials/products and distribute them to consumers. It should be seen that the main objective of the supply chain is in terms of increasing added value. Thus, each actor in the supply chain network will contribute to the form of specific inputs or processes that can increase the value of a product. The supply chain is broadly not only in terms of increasing added value, but also to meet consumer demands, increase competitiveness, increase profits, and build good relationships between actors in the supply chain. Thus, it is not true if the supply chain is only concerned with factories or production processes, but there are other components that must be considered, one of which is to build coordination and collaboration with other actors along the supply chain (Purwanto & Juliana, 2022). More specifically, Joshi and Sharma (2022) define supply chains not only limited to factories and suppliers, but also need to look at conditions of distributors, warehousing and retailers even need to look at consumer needs. Of course, this concept leads us to the scope of supply chain discussion.

2.4 Company Capability

Firm Capabilities are a set of skills and accumulated knowledge that are processed within an organization. The company's capabilities enable the company to optimize the process of coordinating each activity and utilizing assets. Company capabilities are different from company assets. The company's ability cannot be assessed using monetary values (Soemadi et al., 2022). The company's capabilities are embedded in every routine of the company's activities and cannot be easily imitated or traded such as physical assets. The ability to interpret markets, relations and services is the main ability that can affect the company's competitive advantage (Shakerian et al., 2016). Company capability refers to the ability to carry out a series of coordinated tasks, utilizing organizational resources with the aim of achieving a certain result. This study develops a measure of the company's ability to refer to several previous studies. The indicators that will be used to describe the company's

capability variables are the ability to reduce costs, service capabilities, market interpretation capabilities, relationship management capabilities, integration capabilities, and technological capabilities.

3. Method

This research method is a quantitative survey, the object of this research is distributors at the level of lubricants retailers in Indonesia with a total of 460 respondents determined by simple random sampling. The research data was obtained by distributing online questionnaires through social media, the questionnaire was designed using open statements with a Likert scale of 2 to 7. The analysis technique used was based on Structural Equation Modeling with validity test analysis, hypothesis testing is based on structural equation modeling techniques with SmartPLS 3.0 software as a tool to assist data processing.

The research hypotheses are as follows,

- H₁: The company's ability has a positive and significant effect on the company's competitive advantage.
- H₂: Supply chain management practices have a positive and significant impact on competitive advantage.
- H₃: Supply chain responsiveness has a positive and significant impact on competitive advantage.
- H₄: Competitive advantage has a positive and significant impact on company performance.
- H₅: Supply chain management has a positive and significant impact on company performance.

4. Results and Discussion

Based on the data presented in Fig. 1, it is known that each of the many research variable indicators has an outer loading value of > 0.7. However, it seems that there are still several indicators that have an outer loading value < 0.7. Outer loading values between 0.5 - 0.6 are considered sufficient to meet the requirements of convergent validity. The data shows that there is no variable indicator whose outer loading value is below 0.5 all indicators are declared feasible or valid for research use and can be used for further analysis.

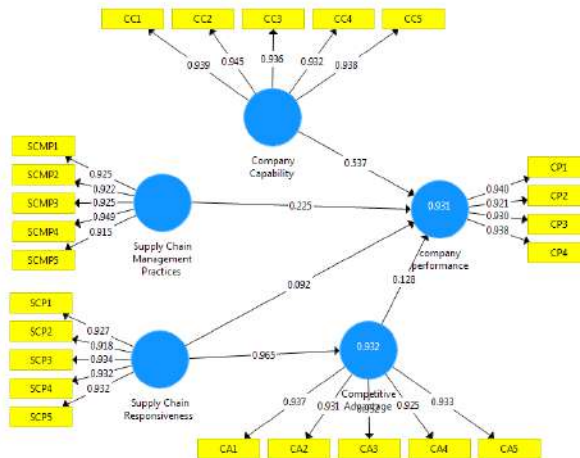


Fig. 1. Validity testing

Based on the data presented in Table 1, it is known that the AVE value of job training variables, leadership style, job satisfaction and employee performance is > 0.5. Thus, it can be stated that each variable has good discriminant validity.

Based on the data presented in Table 1, the composite reliability value of all research variables is > 0.7. this result shows that each variable meets composite reliability so that it can be concluded that all variables have a high level of reliability.

Table 1
Reliability Testing

	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Company's ability	0.808	0.798	0.645
Supply chain management practices	0.848	0.834	0.676
Supply chain responsiveness	0.843	0.898	0.625
Competitive advantage	0.854	0.875	0.628
Company performance	0.813	0.745	0.618

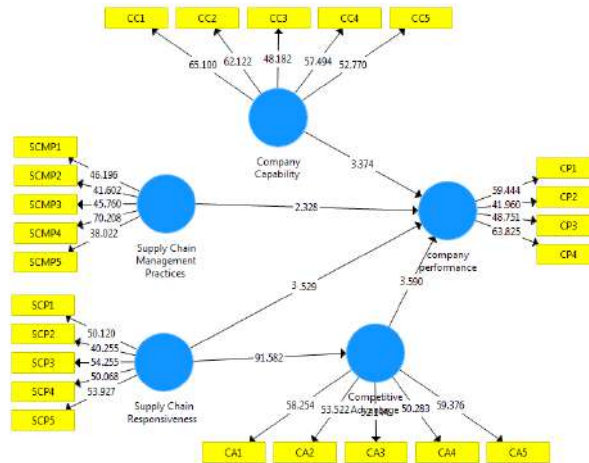


Fig. 2. Hypothesis Testing

Based on the data processing that has been done, the results can be used to answer the hypothesis in this study. Hypothesis testing in this study was carried out by looking at the T-Statistics values and P-Values. The research hypothesis can be declared accepted if the P-Values <0.05. The following are the results of hypothesis testing obtained in this study:

Table 2
Hypothesis testing

Hypothesis	T Statistics	P Values	Result
The company's ability → company's competitive advantage	3.374	0.000	Supported
Supply chain management practices → competitive advantage	2.328	0.000	Supported
Supply chain responsiveness → competitive advantage	91.582	0.000	Supported
Competitive advantage → company performance	3.590	0.000	Supported
Supply chain management → company performance	2.328	0.000	Supported

4.1 The effect of company capability on competitive advantage

Testing hypothesis 1 shows that the calculation results obtained a probability of 0.000, which is less than 0.05, which indicates that the company's ability has a positive influence on competitive advantage, thus H₁ is accepted. The results of this study indicate that adequate company capabilities will increase competitive advantage.

4.2 The effect of supply chain management practices on competitive advantage

Hypothesis 2 testing shows the calculation results with a probability of 0.00 which is lower than 0.05, which indicates that supply chain management practices do not have a positive effect on competitive advantage, thus H₂ is rejected. The results of this study indicate that adequate supply chain management practices will not increase competitive advantage. Qualified management in the supply chain process has also become mandatory for lubricant industry players, so this is what causes supply chain management practices to not be a competitive advantage that differentiates between lubricant distributors.

4.3 The effect of supply chain responsiveness on competitive advantage

Hypothesis 3 testing shows the calculation results obtained a probability of 0.000 which is lower than 0.05, this indicates that supply chain responsiveness does not have a positive influence on competitive advantage, thus H₃ is rejected. The results of this study indicate that adequate supply chain responsiveness will not increase competitive advantage. The same thing is experienced by the supply chain responsiveness variable, speed in the supply chain has also become mandatory for lubricant industry players, so this is what causes supply chain responsiveness to not be a competitive advantage that differentiates between lubricant distributors (Lerman et al., 2022).

4.4 The effect of competitive advantage on company performance

Testing hypothesis 4 shows that the calculation results obtained a probability of 0.000 which is lower than 0.002 and it is smaller than 0.05 and this indicates that competitive advantage has a positive influence on company performance, thus H₄ is accepted. The results of this study indicate that adequate competitive advantage will improve company performance.

4.5 The effect of supply chain management practices on company performance

Testing hypothesis 5 shows that the calculation results obtained a probability of 0.000 which is lower than 0.05, which indicates that supply chain management practices have a positive influence on company performance, thus H_5 is accepted. The results of this study indicate that optimal supply chain management practices will improve company performance. Supply chain management variables have a positive and significant influence on company 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 the research of Lerman et al. (2022) which shows that supply chain management has a significant positive influence on company performance. So, in conclusion the hypothesis is proven.

SMEs implementing supply chain management by maintaining good relationships with suppliers will strengthen their bargaining power and obtain cheaper production materials and can produce cheaper and more competitive products than competitors thereby increasing their competitive advantage. SMEs carry out supply chain management in producing goods with a modular system or can be assembled into several product variations to increase competitive advantage in meeting product changes according to customer wishes and can meet customer requests for new features. Good supply chain management by maintaining supplier relationships can improve the distribution of goods or services in a timely manner and quality is maintained. If an error occurs in sharing information and distributing goods or services, the quality of goods and services will decrease and result in a decrease in competitive advantage. Research by Mukaromah et al. (2022) concludes that competitive advantage has a positive and significant effect on company performance. Lower prices, high quality, speed of delivery and continuous product innovation have proven to increase product sales and dominate market share. Product sales and market share control are benchmarks for a company to achieve its market-oriented performance and financial objectives.

5. Conclusion

The results of this study have indicated that the company's ability has a positive and significant effect on the company's competitive advantage. Supply chain management practices have a positive and significant effect on advantage. Supply chain responsiveness has had a positive and significant effect on competitive advantage, competitive advantage has had a positive and significant effect on company performance, supply chain management has a positive and significant impact on company performance. The study has found several limitations, including: The second and third hypotheses in this study have not been met/rejected, so further research is still needed with a scale wider sample regarding the relationship of these variables, especially in the lubricant retail industry sector. Not all respondents from the initial target respondents can be interviewed and return the questionnaire. The area of the research area is quite large which requires a long time to research. The results of this study and the limitations found in the research can be used as a source of ideas for research development, so the suggested extension of the research in this study is to add independent variables that affect competitive advantage.

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