COMPETITIVE ADVANTAGE AS A MEDIATION OF ELECTRONIC SUPPLY CHAIN MANAGEMENT AND COMPETENCE ON E-COMMERCE PERFORMANCE

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ABSTRACT

The object of this research is an e-commerce company located in Surabaya with a total of 158 respondents. The analysis technique used is the analysis using Partial Least Square estimation technique with a level of significance of 5% and using the Goodness Fit of Index to test the feasibility of the developed model

Based on the results and discussion of the research results that have been stated, conclusions and suggestions can be drawn from this research. The conclusions are described as follows: E-SCM contributes to the Company's Performance. This can be interpreted that the better the perceived quality of consumers, the higher the performance of the company's consumers towards. Competence of the Company to contribute to the Company's Performance. E-SCM contributes to the Company's Performance through Competitive Advantage. The indirect contribution of e-SCM to the Company's performance through competitive advantage is smaller than the direct contribution of e-SCM to the Company's Performance. Competence of the Company to contribute to the Company's Performance through Competitive Advantage. The indirect contribution of the Company's Competence to the Company's Performance through competitive Advantage is smaller than the direct contribution of the Company's Competence to the Company's Performance. This shows that competitive advantage on price perception does not affect consumer company performance

Keywords : Electronic Supply Chain Management, competence, Competitive Advantage and Performance

1. Introduction

The era of the industrial revolution 4.0 has made the world of business and industry more sophisticated and competitive. The impact of information technology in supply chain management so that companies gain a competitive advantage. In addition, the main benefits that the organization can plan to derive are; responsive supply chain management, efficient customer service, fewer processing costs, short cycle times (Deshmukh,: 2016). In today's competitive and rapidly growing market; customer needs vary widely and manufacturers tend to produce a variety of different products to meet the needs of each customer and supply chain management decisions, which include purchasing, production, distribution, scheduling, and inventory control, become more complicated.

Technological developments increasingly encourage companies to implement electronic supply chain management via the internet. By using electronic supply chain management, the flow of information between companies with suppliers and distributors will be faster because the internet can be easily accessed anytime when needed. To develop an efficient supply chain management, companies adopt: (a) information and communication technology and (b) take advantage of all global

economic opportunities to build strategic associations and to integrate processes strongly in their supply chain management. In today's competitive market, effective supply chain management is the focal point of the top management of every organization.

The electronic supply chain management approach has three components. The first is the strategic component, which focuses on resources including strategic partnerships, associations, investments and mergers and acquisitions. The second component is tactical which uses resource allocation plans to make full use of the company's supply chain resources. The third component is operational which focuses on activities to make the supply chain well organized and efficient to reduce the total operational costs. All of them are closely tied to each other. However, in this article, more focus is placed on the tactical and operational components of supply chain management and information technology associations as a competitive advantage. (Chuang, & Hsu: 2017).

One company that requires electronic supply chain management is an E-Commerce company. E-Commerce is a transaction process carried out through online buying and selling sites. Now online shopping has become a norm for some people, because of the convenience it provides, online shopping can also be interpreted as a consumer's desire to spend money to get something they want at an online store. (Harahap, 2018)

Research on the topic of supply chain management has been widely discussed in various countries. Indonesia is one of them. What makes this factor important in Indonesia is that Indonesia is a large country with thousands of islands across the ocean. This explains why transportation costs, which are part of SCM, are so important for Indonesian companies to connect one island or region to another. One of the reasons for this goal is the significant cost savings achieved by improving logistics performance. In developing countries like Indonesia, logistics costs are around 14.08% of total net sales. The amount is quite large and can even be considered one of the main costs. The reason for this number is the archipelagic state of Indonesia which consists of many islands separated by the sea..(Jamaludin, 2021)

This fact triggered a major change in the scope and impact of supply chain management. In this digital era, information technology has become a primary need for all national companies and is no exception. Markets are becoming more transparent and online, customer demands are being met in a more customized way, and trends are changing rapidly in a fast-paced cultural civilization (Kumar, 2018). All of these developments are the reasons why they have a huge impact on the ways in which a company's supply chain should be managed

The problems in this study are also supported by differences in the results of previous studies (research gaps), which examine the effect of supply chain management practices on company performance, where Hasan (2012); Paulraj et al., (2012); Hsu et al., (2009); Tan (2002); and Li et al., (2006) showed a positive influence while Singh et al (2010) showed a negative influence and tested the influence of the company's ability and supply chain responsiveness in increasing the company's competitiveness where Vorhies et al., (2005); Ha- Brookshire et al., (2009); Tuan et al., (2010) showed a positive influence while Yeoh et al., (1999) showed an insignificant relationship..

2. Research methods

The object of this research is an e-commerce company located in Surabaya with a total of 158 respondents. The analysis technique used is the analysis using Partial Least Square with confirmatory factor analysis, hypothesis testing using the Maximum Likehood Estimation (MLE) estimation technique with a level of significance of 5% and using the Goodness Fit of Index to test the feasibility of the developed model.

3. Research Results

Outlier Evaluation

Evaluation of multivariate outliers (between variables) needs to be done because even though the analyzed data shows no outliers at the univariate level, these observations can become outliers when they are combined with each other. The outlier test results are as follows: There is an outlier if it is expensive. Maximum Distance > Prob. & Number of variables [=CHIINV(0.001;12) : searched through Excel] = 32,909 then to find out the maximum value of expensive distance used SPSS program, with the following results:

Table 1. Oulier Data

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	7,29	67,80	34,50	11,428	65
Std. Predicted Value	-2,381	2,914	,000	1,000	65
Standard Error of Predicted Value	5,700	10,958	7,697	1,192	65
Adjusted Predicted Value	8,06	69,23	34,79	11,905	65
Residual	-28,485	33,961	,000	16,137	65
Std. Residual	-1,599	1,907	,000	,906	65
Stud. Residual	-1,760	2,078	-,007	1,006	65
Deleted Residual	-34,508	40,321	-,291	19,943	65
Stud. Deleted Residual	-1,796	2,145	-,006	1,017	65
Mahal. Distance	5,877	**24,378**	11,824	4,110	65
Cook's Distance	,000	,074	,018	,019	65
Centered Leverage Value	,088	,364	,176	,061	65

a. Dependent Variable: Responden

From the outlier test table, the value of expensive is obtained. The maximum distance of respondent data is 24,378, which value is smaller than the specified expensive distance maximum outlier, which is 32,909, which means that there are no outliers in the data. Thus, it can be said that the data has good quality and can be continued for further processing, with a total sample of 65 respondents.

Composite Reliability Coefficients

Composite reliability is an index that shows the extent to which a measuring instrument can be trusted to be relied on. If an instrument is used twice to measure the same symptoms and the measurement results obtained are relatively consistent, then the

tool is reliable. In other words, reliability shows a consistency of measuring instruments in the same phenomenon. The complete results can be seen in the following table:

Table 2. Composite Reliability Coefficients

	Composite Reliability Coefficients	Cronbach Alpha Coefficients
E-SCM	0.819	0.704
Competence	0.769	0.632
Competitive Advantage	0.754	0.651
Performance	0.736	0.643

Source: Results of data processing,

The reliability of the construct as measured by the value of composite reliability, a reliable construct if the value of composite reliability is above 0.70, the indicator is said to be consistent in measuring the latent variable. The test results show that the constructs (variables) of the E-SCM, Company Competence, Competitive Advantage and Company Performance variables have a composite reliability value greater than 0.7. So reliable.

Structural Model Testing (Inner Model)

Testing of the inner model or structural model is carried out to see the relationship between variables, significance values and R-square of the research model. After knowing the significant relationship between variables. Thus, it can be concluded the hypothesis for the problem of customer satisfaction. Hypothesis testing is done by resampling bootstrap method. The test statistic used is the t test statistic. (Ghozali, 2008). Testing of the structural model is done by looking at the R-Square value which is the goodness-fit test of the model. The inner model test can be seen from the R-square value in the equations between latent variables. As follows:

Tabel 5. R-Square

	R Square
E-SCM	0,089
Competence	
Competitive Advantage	0.588
Performance	0,286

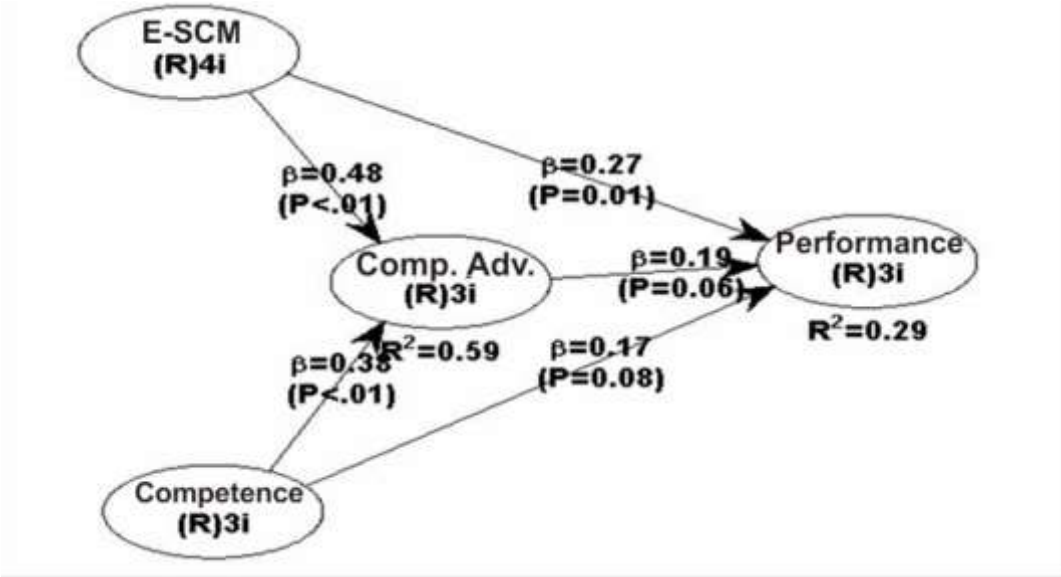
Source: Results of data processing

The value of the Coefficient of Determination (R2) on Competitive Advantage = 0.588. It can be interpreted that the model is able to explain the phenomenon/problem of Competitive Advantage of 58.80%. While the rest (41.20%) is explained by other variables (besides E-SCM and Company Competence) which have not been included in the model and errors. This means that Competitive Advantage is influenced by E-SCM and Company Competence by 58.80%, while 41.20% is influenced by E-SCM and Company Competence variables, the Determination Coefficient Value (R2) on Company Performance = 0.286 This can be interpreted that the model able to explain the phenomena/problems of the Company's performance of 28.60 %. While the rest

(71.40%) is explained by other variables (besides E-SCM, Company Competence, and Competitive Advantage) which have not been included in the model and errors. This means that the Company's performance is influenced by E-SCM, Company Competence, and Competitive Advantage by 28.60% while 71.40% is influenced by the E-SCM variable, and Company Competence, and Competitive Advantage.

Hypothesis test

Direct hypothesis testing is carried out to determine the effect between research variables. The basis for the decision of the hypothesis uses a p value of 10%.



Picture 1 : Conseptual Model

From the PLS output image above, it is known that e-SCM and Company Competence are exogenous variables. Interest is an endogenous variable. Competitive Advantage is a variable that can be exogenous and endogenous. Where competitive advantage becomes an exogenous variable when it becomes a link between quality and price to interest, while when competitive advantage becomes an endogenous variable. The results of data processing show the magnitude of the factor loading value of each indicator which is located above the arrow between the variables and indicators, it can also be seen the magnitude of the path coefficient which is above the arrow line between exogenous variables and endogenous variables. In addition, it can also be seen the size of the R-Square which is right in the circle of endogenous variables..

Result inner weights

Direct Effect

Table 3. Inner weight

	Path Coefficients	Standard Error for Path Coefficients	P-Values
E-SCM → Competitive Advantage	0,476	0.106	0.001
Competence → Competitive Advantage	0,381	0.109	0.001
E-SCM → Performance	0,265	0.113	0,011

Competence→ Performance	0,170	0.117	0,076
Competitive Advantage → Performance	0,187	0.116	0,057

Source: Results of data processing

From the table above, it can be concluded that the hypothesis states:

1. E-SCM has a significant positive effect on Competitive Advantage with a path coefficient of 0.476 where the p-values = <0.001 is smaller than the value of = 0.10 (10%)
2. Competence has a significant positive effect on Competitive Advantage with a path coefficient of 0.381 where the value of p-values = <0.001 is smaller than the value of = 0.10 (10%)
3. E-SCM has a significant positive effect on performance with a path coefficient of 0.265 where the value of p-values = 0.011 is smaller than the value of = 0.10 (10%)
4. Competence has a significant positive effect on performance with a path coefficient of 0.170 where the p-values = 0.076 is smaller than the value of = 0.10 (10%)
5. Competitive Advantage has a significant positive effect on performance with a path coefficient of 0.187 where the value of p-values = 0.057 is smaller than the value of = 0.10 (10%)

Indirect Effect

Tabel 4. Indirect Effect

	Path Coefficients	Standard Error for Path Coefficients	P-Values
E-SCM → Competitive Advantage → Performance	0,089	0.085	0,150
Competence → Competitive Advantage → Performance	0,071	0.086	0,205

Source: Results of data processing

1. The effect of E-SCM on Performance through Competitive Advantages is 0.089 where the p-values = 0.150 is greater than the value of = 0.10 (10%), meaning that the indirect effect is smaller than the direct effect of e-SCM on Performance.
2. The effect of Competence on Performance through Competitive Advantage is 0.071 where the p-values = 0.205 is greater than the value of = 0.10 (10%), meaning that the indirect effect is smaller than the direct effect of Competence on Performance.

Discussion

Effect of E-SCM on Performance

Dari hasil pengujian diatas, diperoleh hasil bahwa e-SCM berpengaruh positif signifikan terhadap Performance . e-SCM will be a good system if the company is able to implement the system properly and correctly. A good application of e-SCM will make all the problems that occur within a company can be known properly and correctly, as well as anticipating problems that occur can also be avoided by conducting

an in-depth analysis of a problem that occurs with all the solutions (Christopher, 2016). A company that is able to carry out e-SCM activities correctly will get many benefits and advantages from the e-SCM. These advantages are not only short-term gains but also long-term benefits. Such as the possibility of increasing profits from prolonged cooperation with various parties, expanding market share, and customer satisfaction. There are two important things in e-SCM, the first is the collaboration of the results of joint efforts between each part or process in the product cycle and the second is that e-SCM can cover all activities of the product cycle.

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Effect of Competence on Performance

Competence is usually in an organizational context, describing the identity and performance and reputation of the organization. The competence of the workforce shows the organization's ability to carry out work processes, meet the demands of changing business, markets, and regulations, develop new products/services and work processes, as well as build and maintain sustainable relationships with customers for innovation and new technology transitions (Chatab, 2007: 102). Several studies have stated that competence has a significant effect on performance. The company's competence can significantly influence performance (Sutapa, 2009). Competence has a positive effect on performance (Wijaya & Suhaji, 2012).

Effect of Competitive Advantage on Performance

Competitive advantage is anything that a company is able to do much better than competing companies. When a company has something that it really wants from competing companies, or is able to do something that competing companies are unable to do, this can represent a competitive advantage. Gaining and maintaining a competitive advantage is critical to the long-term and performance success of an organization. Achieving competitive advantage leads to organizational success or failure (David, 2009:11). Competitive advantage has a significant influence on performance (Budiastuti, 2011). The competitive advantage variable has a significant effect on performance (Rahmasari, 2011). Competitive advantage variable as an intervening variable has a significant effect on Performance (Usvita, 2015)

Effect of E-SCM on Company Performance through Competitive Advantage

A company can survive and succeed in the long term only if it successfully develops strategies to deal with the five competitive forces that make up the competitive structure of its industry. In Michael Porter's classic model of competition, any business that wants to survive and be successful must develop and implement strategies to effectively counter (1) competing competitors in its industry, (2) the threat of new entrants into its industry and market, (3) the threats posed by substitute products that can capture market share, (4) the bargaining power of customers, and (5) the bargaining power of suppliers. (Ansah: 2021),

E-commerce companies can use e-SCM to substantially reduce business process costs or to lower customer or supplier costs. By distinguishing; it develops new e-SCM features to differentiate products and services to reduce competitors' differentiation advantages, or to focus products and services on selected market niches (Keeney, 2017). The innovation strategy creates new products and services that include e-SCM components, develops unique new markets or market niches with the help of e-SCM, and makes radical changes to business processes with e-SCM that dramatically cuts

costs, improves quality, efficiency , or customer service, or shorten time to market (Alimohamadian, 2017).Companies can win the competition if they increase the complexity of the technology needed to compete in an industry or market segment. This action will leave competitors far behind. The real problem with competitive advantage is that it is usually short-lived and generally unsustainable in the long run. Once a company knows how to gain an advantage over its competitors, competitors know how it's done, and they do the same. That is, what was once a competitive advantage is now a competitive necessity. The ability to learn faster than competitors is the only sustainable competitive advantage in the future. (Prakosa, 2015).

Effect of Company Competence on Company Performance through Competitive Advantage

The test results show that the influence of company competence on company performance through competitive advantage has a smaller indirect effect than the direct influence of company competence on company performance, which means that company competence on company performance has a greater direct effect. The results of this study indicate that competitive advantage affects the performance of SMEs. The results of this study support the seventh hypothesis, which means that it supports the opinion of Baldwin et al (2015) which states that competitive advantage is a factor that plays a role in increasing activity on performance. The results of this study are in accordance with Research (Darroch, 2015) and Sharma and Fisher showing competitive advantage has an influence on company performance. There is a difference in perspective between the research and previous research. This study looks at competitive advantage in terms of the ability of MSMEs to gain competitive advantage, or in other words, their competitive advantage. Meanwhile, Rahmani and Siyamtinah's research (2017) looks at competitive advantage from differences/diversity of patterns to build competitive advantage. The results of this study are also in accordance with Potjanajaruwit, (2018) which explains that the competitive advantage of startups, and competitive advantage have a direct positive effect on marketing performance in Thailand. Moreover, it is clear that technological capabilities and collaboration between organizations have a direct effect on startup performance in Thailand, where all the previous effects are statistically significant.

A well-designed Supply Chain Management helps companies by optimizing the following: (1) ensuring the right quantity of spare parts for production or products for sale arrive at the right time, (2) keeping material transportation costs as low as possible consistent with delivery (logistics) which is safe and reliable, (3) ensures the production line functions smoothly as high quality parts are available when needed, (4) ensures no lost sales due to empty shelves, and (5) maintains the cost of purchased parts and prices product at an acceptable level (Thakkar, et al: 2016)

E-commerce portals can improve resource procurement by providing an online marketplace for enterprise suppliers. Electronic Supply Chain Management can support the marketing and sales processes by developing interactive targeted marketing capabilities on the Internet and the Web. (Bratić, 2016).Creating a loyal customer base is not only about retaining the number of customers overtime, but also about improving relationships with business customers to drive their purchases and levels of support in the future. Loyal customers offer a stable revenue stream for companies (Tan, 2016).For example, building customer loyalty is critical in a beleaguered airline industry. Call center software records conversations and captures keystrokes, so managers know

whether appropriate action has been taken (Green, 2018). In addition, airlines can use data to help develop marketing plans and shape overall strategies. New standards were imposed, customer satisfaction increased, and sales increased.

4. Conclusions

Based on the results and discussion of the research results that have been stated, conclusions and suggestions can be drawn from this research. The conclusions are described as follows:

1. E-SCM contributes to the Company's Performance. This can be interpreted that the better the perceived quality of consumers, the higher the performance of the company's consumers towards
2. Competence of the Company to contribute to the Company's Performance. It can be concluded that the better the competence of the company, the higher the performance of the consumer company. This means that the price in the market is considered reasonable by consumers so that it affects the performance of consumers' companies towards .
3. E-SCM contributes to the Company's Performance through Competitive Advantage. The indirect contribution of e-SCM to the Company's performance through competitive advantage is smaller than the direct contribution of e-SCM to the Company's Performance. This shows that the competitive advantage of perceived quality does not affect the performance of consumer companies.
4. Competence of the Company to contribute to the Company's Performance through Competitive Advantage. The indirect contribution of the Company's Competence to the Company's Performance through competitive Advantage is smaller than the direct contribution of the Company's Competence to the Company's Performance. This shows that competitive advantage on price perception does not affect consumer company performance

In this fierce competition, the only organization that can survive is to meet changing customer demands and deliver the right product, at the right place, in the right quantity, at the right time, and at the right price. This cycle cannot be completed without inter- and intra-organizational coordination, customer and supplier relationship management, transportation & distribution management, and rapid information flow, which means strong integration among all supply chain functions is required. Modern information and communication technologies provide software solutions, web-based internet facilities (e-business, e-procurement, e-commerce, etc.) and centralized databases that assist in efficient communication and coordination within and outside the organization. Supply Chain management software solutions provide demand forecasting analysis, production planning, inventory management and distribution reducing uncertainty with less process and inventory holding costs. In this competitive market, organizations have very limited margins and investing in e-SCM is the best way to get an efficient return on investment in the form of a competitive advantage. The main barriers to information integration through e-SCM discussed here are the lack of strategic alignment of information strategies, the firm size of some supply chain actors, lack of awareness of the potential benefits of e-business, lack of motivation, and being in a less developed industry.

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