

# Uncertain Supply Chain Management

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## Mediation of supply chain integration on the relationship between market orientation with company performance

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### ABSTRACT

This research examines mediation supplier integration on relationship between market orientation and company performance, the effect of market orientation on performance, the effect of market orientation on supply chain integration, and the effect of supply chain integration on company performance. The variables used in this study are market orientation, as an exogenous variable, company performance as an endogenous variable, and supply chain integration as an intervening variable. This research uses quantitative methods with descriptive research and causal research. Data from the 3 variables were analyzed using Structural Equation Model (SEM) in SmartPLS Software version 3.0.m3. The number of samples used in this study were 70 respondents. The results show that market orientation had a significant and significant effect on company performance. The results of this study provide very important implications for the role of management to maintain supply chain integration in the relationship between market orientation and company performance.

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## 1. Introduction

Effective and efficient supply chain ordination requires the integration of all product flow processes. Each company successfully competes with the assistance of partnerships (Huang, Yen, & Liu, 2014). Supply chain demand will increase the overall value generated by the supply chain in terms of producing products. So far, the development of supply chains in Indonesia is in line with the rapid development of knowledge in the context of globalization, which demands that the practice or application of supply chain management must monitor several sources of knowledge from competent institutions and focus on this field. Indonesia as a developing country has applied what is structured in supply chain management practices. Thus, supply chain integration is an important issue for supply chain management. Although limited research has been carried out to examine suppliers resulting from integration (Omar & Miah, 2012). In the Indonesian economy, Micro, Small and Medium Enterprises (MSMEs) are the business groups that have the largest number, in addition, this group is proven to be resistant to various types of economic crisis shocks. Then it has become imperative to strengthen MSME groups that involve many groups. SMEs have an important role in the economy in Indonesia. MSMEs have a proportion of 99.99% of the total business operators in Indonesia, contributing around 60% of GDP. The large number of MSMEs indicates the large number of competitors among MSME actors, besides the uncertainty of the environment also needs to be the focus of MSME actors to have a good strategy. Integration among network members also needs to be the main strategy of MSMEs. The relationship between suppliers, companies and consumers must be managed properly. How to make suppliers responsible for product quality, long-term relationships, and also distribution from upstream to downstream on time. MSMEs in the manufacturing industry are the second largest type of MSMEs after retail trade. The reason for voting in the manufacturing industry is because the SMEs in the manufacturing industry in daily production are based on orders coming in. Businesses that are market oriented or ultimately supply chain integration are ultimately the efforts made continuously in improving company performance, such as research results (Keilor, Bruce & Hult, 1999). Market orientation has a strong and significant correlation with overall company performance, and (Liao, Weinblatt, & Solomon, 2011; Rezaei,

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2016), explain that the relationship between market orientation and company performance has a positive relationship. However different from the results of the study Jaakkola et al., (2016) argues that market orientation has no effect on company performance.

## 2. Theoretical review

### 2.1 Supply Chain Management

SCM has been considered as a key factor to improve the company's progress and competitiveness (Stelzhammer et al., 2015). Together with increasing global competitive pressures, Lean principles have a spread to the supply chain level with a view to optimizing inter-organizational processes from the perspective of the end customer (Swenseth & Olson, 2016). Supply chains help companies anticipate and seek creative problem solving, develop effective new processes (Yu et al., 2013), supply chain management is very important in a highly competitive global business and has become an important research topic in the business literature (Silvestre, Bowers, & Gaard, 2014).

### 2.2 Market Orientation

Market orientation identified three behavioral components for a definition: first, customer orientation, which involves understanding current target buyers and over time to create superior value for them; secondly, competitor orientation which involves obtaining information about existing and potential competitors, understanding short-term strengths and weaknesses and long-term capabilities of both current and potential main competitors; and third, coordination between functions, which is the use of coordinated resources in creating superior value for target customers (Jaakkola et al., 2016). Market orientation need knowledge about the type of market to be entered, including its characteristics (Lim, Darley, & Marion, 2017). Market-oriented companies are expected to be able to regulate their activities, processes, products and services according to the demands and needs of current and potential customers (Sutapa, Mulyana, & Wasitowati, 2017).

### 2.3 Supply Chain Integration

To meet customer needs, organizations must improve all their activities and strategies (Subburaj, Sriram, & Mehroliya, 2020) As the business environment becomes more global and competition becomes more intense, companies are under pressure to simultaneously increase their productivity, customer service and increase customer value of their products (Lopes, 2015). The rationale for this concept is to reduce waste and optimize value in the relevant supply chain. Supply chain integration can be seen as an internal strategic resource that can produce competitive advantages and improve company performance (Barney, 2012).

### 2.4 Company performance

The company's performance includes various dimensions including operational, management and competitive advantages of a company and its operations. In addition to financial performance, several non-financial performance indicators have also been carried out in previous research to increase knowledge about company performance, such as customer satisfaction and marketing performance (Garmann et al., 2015). Consider operational performance and business performance as two main aspects of company performance. Specifically, operational performance refers to increasing the company's response to a relatively volatile environment against its competitors, while business performance refers to the company's financial performance related to return on investment, profitability, and net profit (Huang et al., 2014). The central premise of the resource-based view is that companies compete based on their resources or assets and strategic capabilities (Barney, 2012).

## 3. Methods

This study aims to analyze the influence of market orientation and supply chain integration in company performance. It also aims to identify the mediating effect of supply chain integration on the relationship between market orientation and company performance, the results are then suggested as a possibility in recent research (Acar & Ozsahin, 2018). In this study, the research design used is quantitative research, to test certain theories by examining between variables, based on statistical procedures, where the data used are primary data derived from direct observation through questionnaires.

### 2.5 Definition of Variable Operations

The study is intended to explain the position of the variables to be studied and the relationship between one variable with another variable or in other words to see the relationship of exogenous variables, namely market orientation (X), towards endogenous variables, namely company performance (Y), through intervening variables ie supply chain irrigation (Z). This research is a causality research, which is a research that wants to find an explanation in the form of a cause-effect relationship between several concepts or some variables developed.

#### 2.5.1 Market Orientation Variable

Indicators The market orientation variable adopts from the results of the study (Acar & Ozsahin, 2018; Boso, Story, & Cadogan, 2013; Cacciolatti & Lee, 2016; Cronin et al., 2008; Huang et al., 2014; Liao et al., 2011; R. Moberg, Cutler,

Gross, & Speh, 2002; Stelzhammer et al., 2015; Yang, Yang, & Williams, 2010), consists of 4 indicators, namely; tmarket renders (MO1), dissemination (MO2), customer needs (MO3), and product quality (MO4).

### 2.5.2 Company Performance Variable

Company Performance Indicators adopted from the results of the study(Ar, 2012; Cronin et al., 2008; Foglia, 2013; Kannan & Tan, 2010; Kyengo & Kilika, 2017; Lee, Kwon, & Severance, 2007; Leuschner, Rogers, & Charvet, 2012; Liao et al., 2011; Muazu, 2019; Part, 2010; Stelzhammer et al., 2015) consists of 4 indicators, namely; sales growth (CP1), market share (CP2), customer satisfaction (CP3), employee growth (CP4).

### 2.5.3 Supply Chain Integration Variables

Indicators of Supply Chain Integration Variables were adopted from the results of the study (Chow et al., 2008; Flynn, Huo, & Zhao, 2010; Huang et al., 2014; Stelzhammer et al., 2015; Xian, Sambasivan, & Abdullah, 2018; Zhao, Huo, Sun, & Zhao, 2013), that is; information integration (SCI1), operational integration (SCI2), technological interdependence (SCI3), cooperative relations (SCI4)

## 2.6 Population and Sample

The population in this study is the owner / manager / owner and manager of Serang City's MSME Industry Actors in the Processing Industry Sector as many as 70respondents use the Slovin formula. The data to be used in this study are primary data, through sending questionnaires toowner / manager / owner and managerfrom the SMEs in the Serang City Processing Industry Sector.

## 3. Result

### 3.1 Validity test

Construct validity can be measured by using the loading score parameter in the research model (Rule of Thumbs> 0.7) and using the AVE (Average Variance Extracted) parameter with a score>0.5, Communality> 0.5, and R<sup>2</sup> and Redundancy.

**Table 1**  
Discriminant Validity

Construct	Original Sample	Sample The mean	Standard Deviation	T Statistic	P Values
Company Performance	0.740	0.743	0.059	12,618	0,000
Marketing Orientation	0.796	0.799	0.058	13,729	0,000
Supply Chain Integration	0.692	0.695	0.048	14,301	0,000

Sources: Primary data is processed (2020)

Table 1 shows that the construct has a good validity value to know marketing orientation, supply chain integration, and company performance, said to be valid.

### 3.2 Reliability Test

NiCronbach's alpha and composite reliability which is a statistical technique used to measure internal consistency in instrument reliability testing or psychometric data.

**Table 2**  
Composite Reliability

Construct	Original Sample	Sample The mean	Standard Deviation	T Statistic	P Values
Company Performance	0.919	0.918	0.024	38,786	0,000
Marketing Orientation	0.939	0.939	0.021	44,127	0,000
Supply Chain Integration	0.899	0.899	0.021	42,326	0,000

Sources: Primary data is processed (2020)

Can be seen in Table 2, that the internal consistency of exogenous variables with the dependent variable has good reliability, this is because each construct or latent variable has a composite reliability value above 0.7.

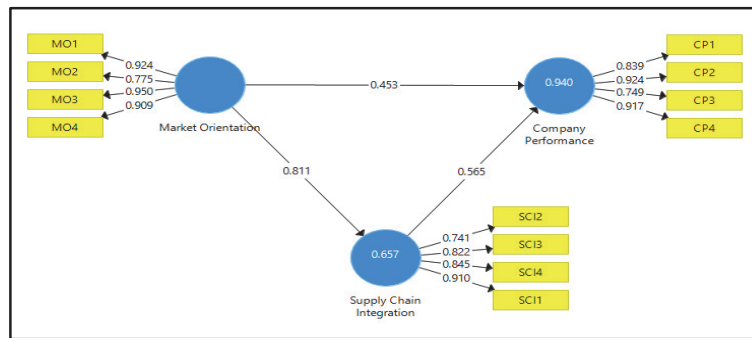
## 3.3 Data Analysis

### 3.3.1 Assessing the Outer Model (Measurement Model)

In PLS, there are three criteria in assessing the outer model, one of which is seeing convergent validity, while the other two criteria are Discriminant validity in the form of square root of average variance extracted (AVE) and Composite Reliability.

### 3.3.2 Outer Model Research variable

The results of processing with Smart PLS illustrate the value of the outer model or correlation with the variable as a whole already meet the Convergent validity, also can be seen in Fig. 1, the t-statistic values of all indicators meet the requirements of the adequacy of the model or Discriminant validity.



**Fig. 1.** Partial Least Square Structural Model

Information: MO = Market Orientation SCI = Supply Chain Integration CP = Company Performance

### 3.4 Hypothesis Testing through the Inner Model

Structural model testing is done to see the relationship between constructs, both the significance value and the R-square of the research model.

**Table 3**

Result for Inner Weight

Construct	Original Sample	Sample The mean	Standard Deviation	T Statistic	P Values
Market Orientation → Company Performance	.453	0.465	0.054	8,444	0,000
Market Orientation → Supply Chain Integration	0811	0815	0.034	24,165	0,000
Supply Chain Integration → Company Performance	0.565	0.554	0.055	10,360	0,000

Sources: Primary data is processed (2020)

Test results of Table 4.3 shows the relationship of supply chain integration with positive and significant company performance at coefficient = 0.565 with t arithmetic = 10.360 and (Pvalue = 0.000) at t = 1.96. Market orientation with supply chain integration is positive and significant at coefficient = 0.811 with t arithmetic = 24.165 and (Pvalue; = 0.000) at t = 1.96. market orientation with positive company performance at coefficient = 0.453 with t arithmetic = 8.444 and (Pvalue; = 0.000 at t = 1.96.

**Table 4**

The results of Adjusted R-Square

Construct	Original Sample	Sample The mean	Standard Deviation	T Statistic	P Values
Company Performance	0.939	0.943	0.012	76,942	0,000
Supply Chain Integration	652	661	0.055	11,784	0,000

Sources: Primary data is processed in 2020

Table 4 above shows the R-square value of company performance 0.939 and supply chain integration 0.652. The higher the R-square, the greater the exogenous variable can explain the endogenous variable, so the better the structural equation.

## 3.5 Research Results

### 3.5.2 Effect of market orientation on company performance

The results of the study prove that market orientation has a positive effect on company performance. This means that the better the market orientation will improve company performance. This is in line with research Bhuian, Menguc, & Bell (2005), that short-term orientation increases Company Performance oriented Marketing Long-term orientation is more suitable to improve performance relative to competitors (Lumpkin, Brigham, & Moss, 2010). If the company is already strong or influences the marketing department, then the long-term orientation or focus leads to overall performance improvement (Cacciolatti & Lee, 2016).

### 3.5.3 Effects of Market Orientation and Supply Chain Integration

The results of the study prove that market orientation has a positive effect on supply chain integration. This means that the better the market orientation will improve supply chain integration. This is in line with tall research conducted by Min et al., (2007), which found that market orientation has a positive impact on supply chain orientation and supply chain management. This means that highly market-oriented companies usually try to gather information related to the market environment and include this information in their decision making. In market orientation (such as: customer or competitor orientation), moderate the relationship between Supply Chain Integration and Company Performance (Huang et al., 2014).

### 3.5.4 Effect of Supply Chain Integration and Company Performance

The results of the study prove that supply chain integration has a positive effect on company performance. This means that the better integration of the supply chain will improve company performance. This is in line with research Ellinger, Shin, Northington, & Adams (2012), which describes integration as an element to create a supply chain driven by a demand strategy that leads to improved company performance. Proposing operational coordination results in effective, fast, reliable, and error-prone supply chain operations, which help companies respond to market uncertainty quickly and accurately (Huang et al., 2014).

### 3.5.5 Influence Analysis

An influence analysis needs to be done to determine the magnitude of the influence of exogenous variables on endogenous variables both directly and indirectly presented in the following Table 5.

**Table 5**

Direct, Indirect Effects

Indirect Effect	Original Sample	Sample The mean	S.tandard Deviation	T Statistic	P Values
Market Orientation → Company Performance	0.458	0.451	0.038	11,941	0,000

Based on Table 5 above, it shows that supply chain integration is able to mediate the influence of market orientation on the company performance, based on  $t\text{-Stat} = 11,941 > t\text{-count of } 1.96$  with  $p\text{Value} = 0,000 < 0.05$ . The results prove that supply chain integration mediates the market orientation of the company performance. The results show the better supply chain integration will mediate market orientation in improving company performance

## 4. Conclusion

Analysis of test results shows that supply chain integration is able to mediate between exogenous variables (market orientation) to endogenous variables (company performance) that means the better market orientation among members of the supply chain can lead to better company performance. the better market orientation can also lead to stronger integration of supply chain members. The indirect effect of exogenous variables (market orientation) through supply chain integration is greater than the direct effect of increasing endogenous variables (company performance).

## 5. Recommendation

Further research can be done by examining the important parts relating to supply chain management practices, especially those relating to supply chain integration, including integration with suppliers, integration with customers and internal integration in an effort to improve company performance. It also can enter new variables such as strategy innovation which is a way to overcome business competition in increasing competitiveness.

## 6. Managerial Implications

The role of management is very important to maintain market orientation, and company performance in supply chain integration. Improved company performance will be characterized by increasing growth and expanding market share. Besides that, at the same time performance the trend Market the better, and customer requirements are met, and the quality of products is getting better. The results of this study cannot be generalized in other cases outside the object of this study or other companies, the company becomes a necessity in optimizing company performance. This study also has implications for the important role of management in building and maintaining integration in all members of the supply chain system. In addition, maintaining market orientation in the supply chain system becomes urgent to achieve optimal performance.

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