The Impact of Long Term Relationship, Process Integration, Cooperation On Supply Chain Management Performance And Competitive Advantage

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Abstract
This research is conducted on Small and Medium Industries of Gumelem Coconut Sugar located in Gumelem, Susukan Subdistrict, Banjarnegara Regency. This study takes the title: "The Influence of Long Term Relationship, Process Integration, Cooperation on Supply Chain Management Performance and Its Impact on Competitive Advantage (Study on GumMem Coconut Sugar IKM)". The purpose of this study was to determine the effect of long term relationships, process integration, cooperation on supply chain management performance and its effect on competitive advantage. The population in this study were all small and medium-sized industries of coconut sugar gumelem in Gumelem Kulon. The number of respondents taken in this study were 71 respondents. Sample Randon Sampling is used in determining this respondent. Based on the results of research and analysis of data using Multiple Regression Analysis and Simple Regression Analysis shows that: (1) Long term relationships have a positive effect on supply chain management performance, (2) Process integration has a positive effect on supply chain management performance, (3) Cooperation has an effect positive for supply chain management performance, (4) Supply chain management performance has a positive effect on competitive advantage. The implications of the above conclusions are in an effort to increase customer satisfaction, the producers should pay attention to various policies relating to long term relationships, process integration, cooperation. The efforts made are to improve the supply chain performance in full in accordance with the needs, policies, trust, cooperation related to customer satisfaction of coconut sugar gumelem. And also in order to maintain tight competition in the industrial world, companies must improve supply chain management performance.

Keywords Long Term Relationship, Process Integration, Cooperation, Supply Chain Management Performance, Competitive Advantage

INTRODUCTION
At present, the industry in Indonesia is going very fast, along with the advancement of science and technology. The process of industrialization of the Indonesian people is getting faster with the establishment of various companies and businesses. The rapid development in the field of information and communication technology and the production process has resulted in short product life cycles. Therefore every company must make every effort to increase productivity, efficiency, fast, easy service, and continue to create innovations to stay ahead and survive in the market and industry. The industry is an activity that processes raw materials, raw materials, semi-finished materials and finished goods with a higher value for its users, including building design and industrial engineering, namely upstream industry groups (primary industrial groups), downstream industry groups, and industrial groups small. The industrial business field is a field of activity concerned with an industrial branch that has the same distinctive characteristics, or the results end in a production (Republic of Indonesia Law No.5 of 1984 concerning Industry).

To be able to survive in the market of industry needs a strategy, in order to face competition, threats, and market...
opportunities. The industry must be able to design and have a Supply Chain Management strategy to be able to direct the goals to be achieved in improving company performance so that the company can survive in competition. Supply Chain Management is an integrated activity of activities ranging from the procurement of raw materials and services, conversion to intermediate goods and end products, and delivery to customers (Heizer and Render, 2008).

LITERATURE REVIEW AND HYPOTHESES
According to Pujawan and Erawan (2010) in implementing supply chain management, companies are required to be able to meet customer satisfaction, develop products on time, issue low costs in the supply and delivery of products, and manage the industry carefully and flexible. In dealing with conditions like these companies need a superior strategy to be able to compete and survive. With the competitive advantage strategy in the company, it is expected that every organization can maintain its competitive position against competitors. Long term relationship is an essential element in the supply chain management because it can be created with a continuous relationship between all parties involved in supply chain management. Process integration is related to combine all activities in supply chain management so that all activities can run smoothly. Cooperation (cooperation) that is good and mutually beneficial then this can be done. The relationship between suppliers and producers must be healthy and maintained because the level of dependence of a company on suppliers (suppliers) is very high and long-term because both large companies and small companies always carry out logistics activities. Competitive advantages that develop from those created by the organization to buyers that exceed the organization's costs in creating it. This value is that the buyer is willing to pay in a superior value derived from a lower price offer than that offered by a competitor by obtaining commensurate benefits or can provide unique benefits and more than just offset a higher price (Porter, 1993). Sustainable competitive advantage is an organizational strategic direction that is not the final goal but is a tool to achieve organizational performance that can generate relatively high profits (Ferdinand, 2003).

Previous research conducted by Desi Ariani (2013) uses long term relationship variables, process integration, cooperation, and supply chain management performance in companies. This research is a replica of the study by adding competitive advantage variables and choosing the GumMem IKM Coconut Sugar as the object of this study. This study aims to test that the variable long term relationship, process integration, cooperation affect supply chain management performance and can affect competitive advantage.

Respondents in this study were producers in the Small and Medium Industries Coconut Sugar Gumelem. The use of producers in this study is because researchers want to find out whether the variables that have been determined in this study influence or not on the supply chain that occurs in the Gumelem IKM Coconut Sugar.

H1: Long term relationships have a positive effect on supply chain management performance
H2: Process integration has a positive effect on supply chain management performance
H3: Cooperation has a positive effect on supply chain management performance
H4: Supply chain management performance has a positive effect on competitive advantage

METHODS
This research is a quantitative research using survey research methods in Small and Medium Industries Coconut Sugar Gumelem. The target of this study is a competitive advantage and the factors that influence the performance of supply chain management, namely variable long term relationship, process integration, and cooperation. This study uses a questionnaire as a data analysis tool whereby using the Slovin formula with simple random sampling technique obtained the number of respondents sampled at least 71 respondents.

The data analysis technique used is multiple regression analysis and simple regression analysis techniques. To test the instrument, the researcher used the validity test with product moment or Pearson correlation technique and reliability test with Cronbach Alpha technique. Classic assumption test by conducting normality test, multicollinearity test, heteroscedasticity test, linearity test. The
F test and T-test are also used to determine the accuracy of the regression model and the partial effect of each variable. Finally, the researchers used a simple regression analysis.

RESULTS AND DISCUSSION

Test Validity and Reliability

Validity test results using the product moment or Pearson method show that the value of \( r \) for the product moment correlation or Pearson for all items in the questionnaire question is higher than \( r_{table} = 0.1968 \) (\( n = 69 \)). Therefore all the questions in the questionnaire variable supply chain management performance, long term relationship, process integration, cooperation, and competitive advantage in this study proved valid.

Reliability testing of the questionnaire in this study used the Cronbach Alpha formula. Results Based on the data in table 1 the Cronbach's coefficient value alpha variable long term relationship, process integration, cooperation, each is greater than \( r_{table} \) (0.1968) so that all question items for each variable in this study are declared reliable.

<table>
<thead>
<tr>
<th>No.</th>
<th>Var</th>
<th>Cron Alpha</th>
<th>( r_{table} )</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
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<td>0.1968</td>
<td>Reliable</td>
</tr>
<tr>
<td>2</td>
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<td>0.1968</td>
<td>Reliable</td>
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<td>Reliable</td>
</tr>
<tr>
<td>5</td>
<td>CA</td>
<td>0.774</td>
<td>0.1968</td>
<td>Reliable</td>
</tr>
</tbody>
</table>

Based on the results of statistical calculations with the help of SPSS, multiple regression equations can be made as follows:

\[ Y_1 = -15.319 + 0.393X_1 + 0.392X_2 + 1.073X_3 + \varepsilon \]

The constant value is -15.319 shows that if the long term relationship (X1), process integration (X2), and cooperation (X3) variables are constant, the supply chain management (Y1) performance value is -15.319 units.

The process integration coefficient (X2) is 0.392. The value of the positive regression coefficient has meaning if there is an increase in the process integration variable of one unit, it will increase the variable supply chain management performance by 39.2 percent.

The coefficient value of cooperation (X3) is 1.073. The positive coefficient value has meaning if there is an increase in the cooperation variable of one unit, it will increase the supply chain management variable by 107.3 percent.

Simple Regression Analysis

Based on the results of statistical calculations with the help of SPSS, multiple regression equations can be made as follows:

\[ Y_2 = 11.643 + (0.208Y_1 \) + \varepsilon \]

The constant coefficient value of 11.643 shows that if the supply chain management (Y1) performance variable is constant, then the value of competitive advantage (Y2) is 11,643 units.

Supply chain management (Y1) performance coefficient value is 0.208. The positive regression coefficient means that if there is an increase in the supply chain management performance of one unit, it will raise the competitive advantage (Y2) variable by 20.8 percent.

Classical Assumption Test Model 1

Normality Test

Based on calculation, the significance value is 0.200 > \( \alpha \) (0.05). Therefore, it can be concluded that the data is usually distributed.

Multicollinearity Test

Based on calculation, the VIF value of all variables is not more than 10, and the tolerance value is higher than 0.10, so there is no problem with multicollinearity.

Heteroscedasticity Test

Based on calculation, all variables have significant values > \( \alpha \) (0.05), it can be concluded that the model does not occur with symptoms of heteroscedasticity.

Linearity Test

Based on the linearity test, the regression model formed is declared linear.

Classical Assumption Test Model 2

Normality Test

Based on calculation, the significance value is 0.200 > \( \alpha \) (0.05). Therefore, it can be concluded that the data is usually distributed.
Multicollinearity Test
Based on calculation, the VIF value of all variables is not more than 10, and the tolerance value is higher than 0.10, so there is no problem with multicollinearity.

Heteroscedasticity Test
Based on calculation all variables have significant values > α (0.05), it can be concluded that the model does not occur with symptoms of heteroscedasticity.

Linearity Test
Based on linearity test, the regression model formed is declared linear.

Classical Assumption Test Model 3
Normality test
Based on calculation, the significance value is 0.200 > α (0.05). So from that, it can be concluded that the data is usually distributed.

Heteroscedasticity Test
Based on calculation, the variable has a significance value > α (0.05), it can be concluded that the model does not occur symptoms of heteroscedasticity.

Linearity Test
Based on the linearity test, the regression model formed is declared linear.

Hypothesis testing
Adjusted R Square Model 1
Adjusted R square of 0.828 means that supply chain management performance (Y1) is explained by long term relationship (X1), process integration (X2), and cooperation (X3) of 82.8 percent or variable long term relationships, process integration, cooperation affects performance supply chain management by 82.8 percent.

Adjusted R Square Model 2
Adjusted R square of 0.219 means competitive advantage (Y2) explained by supply chain management (Y1) performance of 21.9 percent or supply chain management performance affect competitive advantage by 21.9 percent.

Model 1 Test F
By using a confidence level of 95% (α = 0.05) and degree of freedom (k) and (n - k - 1) = (71 - 3 - 1) = 67, the F table value obtained is 1.668. Based on the results of the study note the value of t arithmetic > t table (2.803 > 1.668) and at the significance level of 0.007 < α (0.05). So, the first hypothesis is accepted.

Model 2 Test
By using a confidence level of 95% (α = 0.05) and degree of freedom (k) and (n - k - 1) = (4542 - 4 - 1) = 4537, the F table value obtained is 1.671. Based on the results of the study note the value of t arithmetic > t table (4.612 > 1.667) and at the significance level of 0.000 < α (0.05). So, the fourth hypothesis is accepted.

T-test
Testing the First Hypothesis
H1: Long Term Relationship has a positive and significant effect on Supply Chain Management Performance
By using a confidence level of 95% (α = 0.05) and degree of freedom (k) and (n - k - 1) = (71 - 3 - 1) = 67, the t table value obtained is 1.668. Based on the results of the study note the value of t arithmetic > t table (2.803 > 1.668) and at the significance level of 0.007 < α (0.05). So, the first hypothesis is accepted.

Testing of the Second Hypothesis
H2: Process Integration has a positive and significant effect on Supply Chain Management Performance
By using a confidence level of 95% (α = 0.05) and degree of freedom (k) and (n - k - 1) = (71 - 3 - 1) = 67, the t table value obtained is 1.668. Based on the results of the study note the value of t arithmetic > t table (2.803 > 1.668) and at the significance level of 0.007 < α (0.05). So, the first hypothesis is accepted.

Testing of the Third Hypothesis
H3: Cooperation has a positive and significant effect on Supply Chain Management Performance
By using a confidence level of 95% (α = 0.05) and degree of freedom (k) and (n - k - 1) = (71 - 3 - 1) = 67, the t table value obtained is 1.668. Based on the results of the study note the value of t arithmetic > t table (2.803 > 1.668) and at the significance level of 0.007 < α (0.05). So, the first hypothesis is accepted.

Testing of the Fourth Hypothesis
H4: Supply Chain Management Performance has a positive and significant effect on Competitive Advantage
By using a confidence level of 95% (α = 0.05) and degree of freedom (k) and (n - k - 1) = (71 - 3 - 1) = 67, the t table value obtained is 1.668. Based on the results of the study note the value of t arithmetic > t table (2.803 > 1.668) and at the significance level of 0.007 < α (0.05). So, the first hypothesis is accepted.

Conclusion
There are several implications for consideration for interested parties. First, building long-term, sustainable relationships, companies need to build a trust-based relationship, form a dependency relationship, and also need to increase a sense of satisfaction to those who involved in supply chain activities. Second, improving process integration, companies need to establish good cooperation with suppliers in carrying out raw material procurement activities as well as internal coordination of companies by forming work groups in order to increase
cohesiveness in work. Third, improving cooperation, trust, and communication in supply chain activities, companies need to carry out joint coordination actions carried out by the company in collaborative relationships by exchanging information and openness between parties. Fourth, the availability of raw materials, procure stock, and performance in supply chain activities, companies must pay attention to whatever competitive advantages they have.

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