

## THE EFFECT OF SUPPLY CHAIN MANAGEMENT ON SMIs OPERATIONAL PERFORMANCE (Study on Packaged Coffee Powder Industry in Sigi District)

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### ABSTRACT

This research aims to determine and describe the effect of supply chain management, which consists of information sharing, long-term relationships, cooperation, and integration processes, on the operational performance of packaged coffee powder SMIs in Sigi District. This type of research was quantitative descriptive. The testing procedure used was census technique where the entire population was examined by 55 respondents. The types of information were quantitative and qualitative. Information sources covered essential information and optional information. Methods of collecting information were conducted through interviews, observation, questionnaires, and documentation. The data analysis technique used was multiple regression analysis. The research results show that (1) supply chain management, which consists of information sharing, long-term relationships, cooperation, and integration processes, has a positive and significant relationship to the operational performance of Packaged Coffee Powder SMIs in Sigi District. (2) Information sharing has a positive and significant relationship with the operational performance of Packaged Coffee Powder SMIs in Sigi District. (3) The long-term relationship has a negative and significant relationship to the operational performance of Packaged Coffee Powder SMIs in Sigi District. (4) Cooperation has a positive and significant relationship to the operational performance of Packaged Coffee Powder SMIs in Sigi District (5) The integration process has a positive and significant relationship to the operational performance of Packaged Coffee Powder SMIs in Sigi District.

**Keywords:** Supply Chain Management, Operational Performance

### INTRODUCTION

Indonesia has a large open opportunity to develop the industry. One of them is coffee processing, because apart from having a large marketing scope, it is also supported by material possibilities. Therefore, essential efforts are needed, such as downstream efforts to increase added value and increase creation limits. "Indonesia is the fourth-largest producer of espresso beans in the world after Brazil, Vietnam, and Colombia, with an average production of around 700,000 tons annually, or around 9 percent of world espresso production. With the development of the working class and changes in the way of life of the Indonesian people, the domestic espresso handling industry has fundamentally developed. Through a turn of events, Indonesia was initially only known as an espresso maker before gradually forming into an espresso-buying country. Not only as an important part of the domestic market but also as a world player. Indonesia is known as the world's best coffee maker, as seen from different geological signs. (Rasyid, 2015).

The potential for small and medium industry (SMIs) of coffee in the country is supported by 13 coffee manufacturing centers spread across various regions in Indonesia, starting from Aceh, West Sumatra, Riau, Jambi, Bengkulu, Lampung, Central Java, Bali, Nusa Tenggara Barat, Nusa Tenggara Timur, South Sulawesi, West Sulawesi, and Papua, with a total of 476 special units. The public's espresso creations actually have tremendous opportunities to continue to grow, including in the SMIs area. Public authorities continue to empower the expansion of modern goods to fill the commodity market for goods handled through the preparation of skilled human resources and expand their dominance by increasing the progress of food innovation, the effectiveness of the handling process, and the confirmation of the quality of goods (Rasyid, 2015).

Rapid advances in technology, data, correspondence, and assembly processes have resulted in short product life cycles, so expect organizations to be able to make improvements to organizational functional exercises to be able to meet client expectations and deliver products on time, resulting in lower inventory and freight costs. Organizations should have options to track better approaches to increase efficiency. Value, quality, and administration are the key factors an organization has to consider to survive the opposition. To manage this condition, inter-organizational and provider participation is essential to increase progress capacity and utilize the capabilities of central assets among cooperating organizations. Assuming the provider is involved from the start, the profits generated will be much greater. The contribution of several meetings is known as supply chain management (Siagian, 2005).

Supply chain management is a general association of activities in supply chains, from raw materials to consumer loyalty. Supply chain management aims to expand the value created to be able to meet the needs and requirements of clients by limiting the costs incurred during the time spent fulfilling these requests. The application of supply chain management is very important for every company to expand its business intensity and can also affect company performance. The company's functional improvement must be carried out as a company procedure to be able to anticipate every competitor and deal with situations that occur in the field. By implementing supply chain management, companies can perform better than their competitors because the cost of meeting and serving market needs can be limited. (Heizer et al., 2015).

According to Ariani and Dwiyanto (2013), business requires the right methodology to survive and be able to face contests, market risks, and the possibility of open doors. Companies must be able to plan and have a supply chain management strategy to be able to guide the goals to be achieved in improving their performance so that they can survive in the competition. Many elements can affect the performance of supply chain management within a company, including information sharing, long-term relationships, cooperation, and process integration. Information sharing is a way for supply chain individuals to obtain, track, and pass on the data needed to ensure successful independent direction and is a variable that can strengthen the components of a coordinated effort, generally with modern bottlenecks that data sharing can reduce. Long-term relationships can also affect the operational performance of SMIs. A long-term relationship is an impression of the buyer's dependence on the provider, either in terms of goods or connections that should provide benefits for the buyer in the long run. Cooperation is what happens when several groups work together to achieve goals that are useful in general. All components that can affect the operational performance of SMIs, starting with information sharing, long-term relationships, and cooperation, will form a complex unit, especially the coordination cycle (mixed process). The combination of corporate networks shows an extraordinary process of collaboration between companies as providers and buyers; if carried out, it will increase efficiency in company tasks, increase business benefits, and provide satisfaction to all parties.

Operational performance is the result of the output obtained by the company in a certain period, considering the arrangements that have been made in the company's functional standards (Suharto, 2013). Devaraj et al. (2010) state that operational performance dimensions can be estimated by efficiency, which refers to representative efficiency in completing items. Production volume, which refers to the error rate and the amount of production, Warranty claims cost refers to the level of error costs relative to the amount of production. Cost of quality, which refers to the level of quality costs (rework) of the number of sales. Delivery performance refers to the timeliness of sending to consumers. Research conducted by Ariani and Dwiyanto (2013) found that information sharing, long term relationships, cooperation, and integration processes have a positive and significant

impact on operational performance. To develop the company's operational performance, it is important to have a good supply chain management strategy. Information sharing, long-term relationships, collaboration, and process integration are important variables that affect the performance of supply chain management. Based on the explanation from the background, the formulation of the problem in this research is "Does supply chain management consisting of information sharing, long-term relationships, cooperation, and process integration have a positive effect on the operational performance of the packaged coffee industry in Sigi District?" In relation to the formulation of the problem that has been mentioned, the goal to be achieved in this study is to decide and describe the impact of supply chain management consisting of information sharing, long term relationships, cooperation, and integration processes on the operational performance of Packaged Coffee Powder SMIs in Sigi District.

According to Siahaya (2013: 14) supply chain management is coordinating complete business resources, both internal and external to the company, to get a tight supply framework and focus on synchronizing product development and data to get high consumer appreciation. Combined sources of business include suppliers, manufacturers, stockrooms, operators, traders, retailers, and buyers who work properly so that the goods shipped and distributed meet certain quantity, quality, and general arrangements. The main thing in supply chain management is the similarity of data; thus, in material flow, income and data flow are components in the production network that must be coordinated (Anatan and Ellitan, 2008). Supply chain management standards are basically a synchronization and coordination of activities related to the development of materials and goods, both within associations and between associations. According to Sobandi and Kosasih (2014), operational performance can be defined as the fairness of the cycle and assessment of the implementation of activities within the organization as far as costs, client support, delivery of goods to clients, quality, adaptability, and the nature of labor processes and products. Operational performance estimation is based on the quality of service provided by the company to buyers, the speed and accuracy of transportation, the ability to produce a number of products, the ability to mix products, and the ability to adapt new products. In addition, operational performance can be characterized as good execution, promotion, and supply chain management, which will provide excellence (Danastry, 2018). The following shows a picture of a framework to explain the conceptual flow of this research.

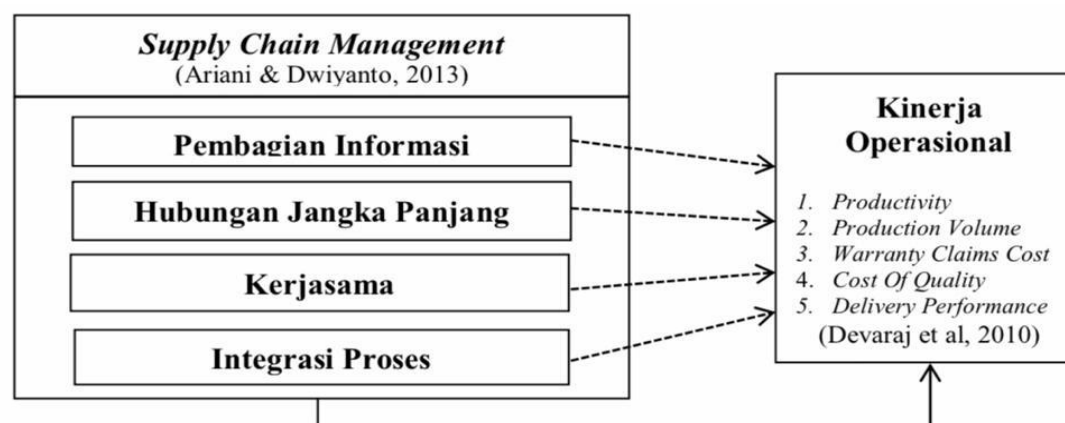


Figure 1. Theoretical Framework

Based on the problems and explanation of the framework above, the hypothesis of this research is:

1. Supply chain management, consisting of information sharing, long-term relationships, cooperation, and integration processes, has a positive effect on the operational performance of Packaged Coffee Powder SMIs in Sigi District.
2. Information sharing has a positive effect on the operational performance of Packaged Coffee Powder SMIs in Sigi District.
3. The long-term relationship has a positive effect on the operational performance of Packaged Coffee Powder SMIs in Sigi District.
4. Cooperation has a positive effect on the operational performance of Packaged Coffee Powder SMIs in Sigi District.
5. The integration process has a positive effect on the operational performance of Packaged Coffee Powder SMIs in Sigi District.

## RESEARCH METHOD

This type of research is quantitative descriptive. Descriptive research generally has an exploratory nature; the results of this research are in the form of hypotheses that still need to be tested for validity in further research. In this research, a descriptive analysis is used to find out how supply chain management affects the operational performance of the packaged coffee powder industry in Sigi District. The causal approach is useful for proving cause-and-effect relationships because independent variables affect the dependent variable (Sugiyono 2018). This research was conducted in the packaged ground coffee industry in Sigi District. The choice of research location was based on the consideration that coffee is one of the most superior commodities in Sigi District. This shows that there is greater potential for economic development compared to other districts. This research was conducted for approximately 3 months, starting in January and ending in March 2023.

The population in this research is all packaged coffee powder SMIs, namely 55 SMIs in Sigi District. The method of taking samples in this research uses a census, namely, the entire population is used as a sample. The types of data used in this research are quantitative and qualitative. Quantitative data is in the form of processed data from questionnaires that were distributed to respondents, namely MSME actors who produce packaged ground coffee in Sigi District. While the qualitative data in this research is the profile of the respondent (owner's name, business name, year of establishment, and so on), The sources of data in this research are primary and secondary. Primary data in this research were obtained from questionnaires and the results of direct interviews with respondents, namely packaged ground coffee industry players in Sigi District. Secondary data sources in this research were obtained from several sources of books, journals, and articles related to the variables studied in this research.

Methods for collecting information include observation, interviews, questionnaires, and documentation. Observations made in this research are to observe in detail the research locations regarding supply chain management, which consists of information sharing, long-term relationships, cooperation, process integration, and operational performance. Researchers distributed questionnaires offline to SMIS actors who produce packaged ground coffee in Sigi District. The interview process in this research is through direct questioning and answering with respondents, namely SMIs actors who produce packaged coffee powder in Sigi District. The research instrument test was carried out in February 2023 by distributing questionnaires to 30 respondents, namely SMIs that produce chips in Sigi District. The method of data analysis used in this research is the multiple linear regression method.

The classic assumption test in this research includes:

### 1. Normality Test

The normality test has the objective of testing whether, in the regression model, the independent variables have a normal distribution. One way to tell whether residuals are normally spread is by graphical examination, by looking at a histogram chart that compares the observed information with the spread near normal circulation. Normality is identified by looking at the distribution of data pieces from corner to corner of the center of the diagram or by examining the residual histogram (Ghozali, 2006).

## 2. Multicollinearity Test

The multicollinearity test has the objective of testing whether there is a relationship between the confounding variables in the regression model. A good regression model should have no relationship between confounding variables. If the confounding variables are interrelated, then these variables are not orthogonal. The orthogonal variable is a confounding variable that has a relationship value between the interfering variables equal to zero (Ghozali, 2006).

## 3. Heteroscedasticity Test

The heteroscedasticity test has the objective of testing whether, in the regression model, there is a difference in the variance of the residuals from one observation to another. The references in making decisions are: (1) If there is a certain pattern, such as dots that form a certain regular pattern (wavy, widened, then narrowed), then it indicates that heteroscedasticity has occurred. (2) If there is no specific pattern and the points spread above and below the number 0 on the Y axis, then there is no heteroscedasticity (Ghozali, 2006).

The multiple linear regression equation model can be described in this research, namely:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + e \quad (1)$$

Information:

Y = Operational Performance

a = Constant

b<sub>1</sub> = Regression Coefficient Information Sharing

b<sub>2</sub> = Regression Coefficient Long Term Relationship

b<sub>3</sub> = Regression Coefficient Cooperation

b<sub>4</sub> = Regression Coefficient Integration Process

X<sub>1</sub> = Information Sharing

X<sub>2</sub> = Long Term Relationship

X<sub>3</sub> = Cooperation

X<sub>4</sub> = Integration Process

e = Standard Error

## RESULT AND DISCUSSION

### Result

#### Normality Test

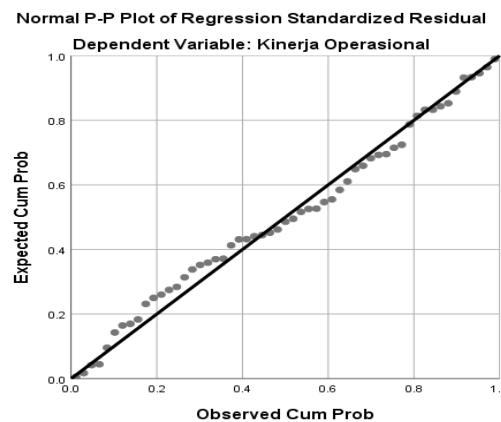


Figure 2. Result of Normality and Residual Tests  
Source: Primary Data Processed, (2023)

Based on the graph of the histogram or normal graph, it can be seen that the Normal Probability Plots graph shows that there is a normal distribution pattern. This can be seen in the points that spread around the normal line and spread in the direction of the diagonal line, so that the regression model can fulfill the assumption of the residual normality test.

#### Multicollinearity Test

Table. 1  
Result of Multicollinearity Test

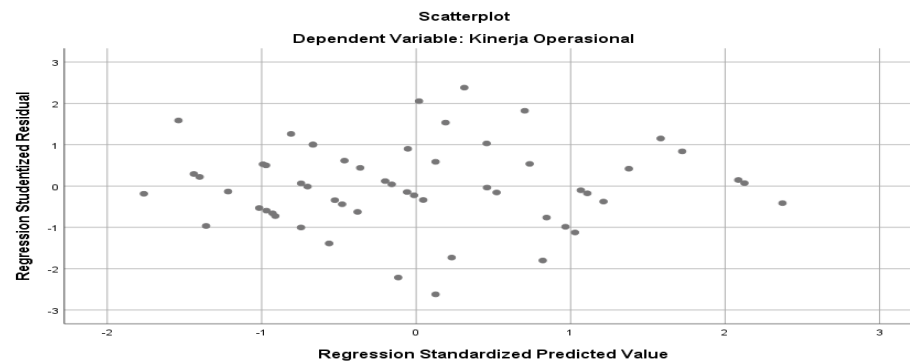
| Variable                | Dimension              | Tolerance | VIF   | Information |
|-------------------------|------------------------|-----------|-------|-------------|
| Supply Chain Management | Information Sharing    | 0,662     | 1,510 | < 10        |
|                         | Long Term Relationship | 0,977     | 1,023 | < 10        |
|                         | Cooperation            | 0,892     | 1,121 | < 10        |
|                         | Process Integration    | 0,708     | 1,413 | < 10        |

Source: Processed Primary Data, (2023)

Based on the results of calculating the tolerance value, it is explained that there are no independent variables that have a Variance Inflation Factor (VIF) value above 10 and have a tolerance value of not less than 0.10. This shows that all the variables tested do not describe any symptoms of multicollinearity, so all variables can be used as independent variables, so the conclusion is that there is no multicollinearity between the independent variables in the regression.



## Heterokedasticity Test



**Figure 3. Result of Heteroscedasticity Test**  
Source: Primary Data Processed, (2023)

Based on the picture above, it can be seen that the points on the distribution do not form a clear pattern, spread below the number 0 on the Y axis, and spread randomly. In accordance with the test results, the conclusion is that there are no symptoms of heteroscedasticity in the regression model, so this model is suitable for use to predict the dependent variable based on the effect of each independent variable.

## Multiple Linear Regression

**Table. 2**  
**Result of Multiple Linear Regression Test**

| Model                  | Unstandardized Coefficients |            | Standardized Coefficients | t        | Sig   |
|------------------------|-----------------------------|------------|---------------------------|----------|-------|
|                        | B                           | Std. Error | Beta                      |          |       |
| 1 Constant             | 0.181                       | 2.812      |                           | .064     | 0.949 |
| Information Sharing    | 0.320                       | 0.083      | 0.315                     | 3.868    | 0.000 |
| Long Term Relationship | -0.247                      | 0.086      | -0.193                    | -2.871   | 0.006 |
| Cooperation            | 0.251                       | 0.085      | 0.209                     | 2.970    | 0.005 |
| Integration Process    | 0.567                       | 0.071      | 0.628                     | 7.966    | 0.000 |
| R Square               | = 0.780                     |            | Konstanta                 | = 0.181  |       |
| Adjusted R Square      | = 0.762                     |            | F-Hitung                  | = 44.288 |       |
| Multiple R             | = 0.883                     |            | Sig. F                    | = 0.000  |       |

Source: Primary Data Processed, (2023)

The results of the multiple linear regression analysis above are then entered into the following multiple linear regression equation model:

$$Y = 0,181 + 0,320 X_1 - 0,247 X_2 + 0,251 X_3 + 0,567 X_4 \quad (2)$$

The explanation of the form of the equation is as follows:

- The constant value ( $\alpha$ ) is 0.181, which indicates that supply chain management consisting of information sharing, long-term relationships, cooperation, and integration processes has a positive effect on the operational performance of packaged coffee powder SMIs in Sigi District. This means that if the supply chain management variables consist of information sharing, long-term relationships, cooperation, and integration processes ( $X_1, X_2, X_3, X_4 = 0$ ), the operational performance of packaged coffee powder SMIs in Sigi District will also increase.
- The regression coefficient  $b_1$  value of information sharing has a positive value of 0.320, indicating that if information sharing increases, the operational performance of packaged coffee powder SMIs in Sigi District will also increase.
- The regression coefficient  $b_2$  for the long-term relationship has a negative value of -0.247 indicating that if the long-term relationship increases, the operational performance of packaged coffee powder SMIs in Sigi District will not increase.
- The value of the regression coefficient  $b_3$  for cooperation has a positive value of 0.251, indicating that if cooperation increases, the operational performance of packaged coffee powder SMIs in Sigi District will also increase.
- The regression coefficient  $b_4$  for the integration process has a positive value of 0.567, indicating that if process integration increases, the operational performance of packaged coffee powder SMIs in Sigi District will also increase.

## Testing Hypothesis

### F Test Results (Simultaneously)

The F test aims to determine the effect of supply chain management, which consists of information sharing, long term relationships, cooperation, and integration processes, on the operational performance of packaged coffee powder SMIs in Sigi District with a significant standard of 0.05 (5%). Based on the calculation results show that the number on the F-count is 44.288, with a significant level of  $0.000 < \alpha = 0.05$ . This means that supply chain management, which consists of information sharing, long-term relationships, cooperation, and integration processes simultaneously, has a significant relationship to the operational performance of packaged coffee powder SMIs in Sigi District, so hypothesis one is **accepted**.

### t Test Results (Parially)

Partial hypothesis testing aims to partially examine the relationship between each independent variable (X) and the dependent variable (Y), as follows:

- Information sharing ( $X_1$ ) has a significant relationship to the operational performance of packaged coffee powder SMI in Sigi District. The results obtained in this study show that the significance probability of the information sharing variable ( $X_1$ ) is  $0.000 > \alpha = 0.05$ . Thus, the information shared in this research has a positive and significant effect on the operational performance of packaged coffee powder SMI in Sigi District. So it can be concluded that the second hypothesis is **accepted**.
- The long-term relationship ( $X_2$ ) has a significant effect on the operational performance of packaged coffee powder SMI in Sigi District. The results obtained in this study indicate that the significance probability of the long-term relationship variable ( $X_2$ ) is  $0.006 > \alpha = 0.05$ . Thus, the long term relationship in this research has a negative and significant relationship to the operational performance of packaged coffee powder SMI in Sigi District. So it can be concluded that the third hypothesis is **accepted**.

- c. Cooperation (X3) has a significant effect on the operational performance of packaged coffee powder SMI in Sigi District. The results obtained in this research show that the significance probability of the cooperation variable (X3) is  $0.005 > \alpha = 0.05$ . Thus, the cooperation in this research has a positive and significant relationship to the operational performance of packaged coffee powder SMI in Sigi District. Therefore, it can be concluded that the fourth hypothesis is **accepted**.
- d. The integration process (X4) has a significant effect on the operational performance of packaged coffee powder SMI in Sigi District. The results obtained in this study reveal that the significance probability of the process integration variable (X4) is  $0.000 > \alpha = 0.05$ . Thus, the integration process in this research has a positive and significant relationship to the operational performance of packaged coffee powder SMI in Sigi District. Therefore, it can be concluded that the fifth hypothesis is **accepted**.

### Determination Coefficient Test ( $R^2$ )

The results of the determination coefficient ( $R^2$ ) obtained a value of 0.780 which means 78%. This value means that supply chain management, consisting of information sharing, long-term relationships, cooperation, and integration processes, is capable of being 78% consistent with the operational performance of the packaged coffee powder industry in Sigi District. While the excess of 22% is influenced by other variables outside of this research model. The level of closeness of effect between supply chain management independent variables consisting of information sharing, long-term relationships, cooperation, and integration processes on the dependent variable operational performance of packaged coffee powder SMI in Sigi District can be seen from the Multiple R value of 0.883 or 88.3%. This indicates that all independent variables have a strong relationship with the dependent variable.

### Discussion

#### Supply Chain Management Consisting of Information Sharing, Long Term Relationship, Cooperation and Integration Process Has a Positive and Significant Effect on the Operational Performance of Packaged Coffee Powder SMI in Sigi District

Supply chain management, consisting of information sharing, long-term relationships, cooperation, and integration processes, is a unit that can support the operational performance of packaged coffee powder SMI in Sigi District. Based on the results of the study, it is known that simultaneously supply chain management consisting of information sharing, long-term relationships, cooperation, and integration processes has a positive and significant relationship to operational performance. This proves that the operational performance of packaged coffee powder SMI in Sigi District will increase if it is supported by good information sharing, long-term relationships, cooperation, and integration processes. For example, good information sharing, long-term relationships, cooperation, and integration processes will support the smooth delivery of materials, and the smooth delivery of materials will certainly guarantee the availability of products for packaged coffee powder SMI in Sigi District.

Supply chain management is centered on coordinating and handling the development of labor and products, as well as data, through distribution networks in order to meet consumer needs while lowering all costs (Russel and Taylor, 2006). The supply chain consists of all the encounters, including those directly or implicated in meeting consumer demands (Chopra and Meindl, 2007). The results of this research are in line with research conducted by Ariani and Dwiyanto (2013), which explains that supply chain management, which consists of information sharing, long-term relationships, cooperation, and integration processes simultaneously, has a relationship to operational performance (studies in the processed food industry). typical of Padang, West Sumatra). This research is also in line with research conducted by Ardianti (2019), which explains that there is a positive and significant relationship between information sharing on operational performance, cooperation on operational performance, process integration on operational performance, and a long-term relationship on operational performance in Bakpia SMEs in Yogyakarta.

#### Information Sharing Has a Positive and Significant Effect on the Operational Performance of Packaged Coffee Powder SMI in Sigi District

Information sharing is the most important dimension because it is a consistent development of correspondence between two meetings and adds superior preparation and control. Based on the results of the partial test (t test), it can be seen that information sharing has a significant relationship to the operational performance of packaged coffee powder SMI in Sigi District. Based on the results of this study, it is known that all packaged coffee powder agree on regular information sharing from suppliers, and packaged coffee powder can function as one unit and, together, better understand consumer needs and be able to respond to market changes more quickly. With the sharing of this information, packaged coffee powder SMI can differentiate each of its products against competitors and make consumers loyal.

Information sharing is a company's strengths and limitations in its communication to provide data to business partners in connection with a shared business system. Data sharing also empowers individual production networks to obtain, follow, and pass on the data needed to ensure proper independent direction and is a component that can strengthen the components of cooperation as a whole, so that modern bottlenecks can be reduced by sharing data (Ariani and Dwiyanto, 2013 ).

The results of this research are in line with research that has been conducted by Ariani and Dwiyanto (2013), which explains that the sharing of information has a positive and significant relationship to operational performance (a case study in the processed food industry typical of Padang, West Sumatra). This research is also in line with research conducted by Ardianti (2019), which explains that there is a positive and significant relationship between information sharing and operational performance in Bakpia SMEs in Yogyakarta.

#### Long Term Relationship Has a Negative and Significant Effect on the Operational Performance of Packaged Coffee Powder SMI in Sigi District

The results of the partial test found that the long-term relationship has a negative and significant relationship to the operational performance of packaged coffee powder SMI in Sigi District. Based on research results, it is known that packaged coffee powder SMI does not want to depend on just one supplier because if one supplier cannot meet the raw material requirements desired by the SMI, then the SMI will move or look for a new supplier as quickly as possible so that the production activities of SMI can continue to operate smoothly.

Operational performance can be improved by implementing a supply chain management strategy. Long-term relationships are one of the factors that greatly affect the performance of supply chain management. Therefore, packaged coffee powder SMI in Sigi District must pay attention to long-term relationships so that they can provide a competitive advantage and increase productivity and profit.

long-term relationship as a view of consumer dependence on providers either in terms of goods or connections that should provide benefits for the customer in the long term. Connections between providers, buyers, and companies must be monitored reasonably and accurately and can be improved consistently so that connections are organized and providers are also responsible for the quality of goods so that the delivery of goods from upstream to downstream is an opportunity for end customers. So expansion in long-term connections and mutual trust between organizations, providers, and clients is needed to achieve productivity in corporate execution (Ariani and Dwiyanto, 2013).

The results of this research are in line with research conducted by Sugiharto (2017), which explains that long term relationships have a negative but significant relationship to operational performance (Case Study at PT. Pan Brothers Tbk., Boyolali).

#### Cooperation Has a Positive and Significant Effect on the Operational Performance of Packaged Coffee Powder SMI in Sigi District

Cooperation is a facilitated or correlative activity that is embraced by every firm in a cooperative relationship and relies on obtaining a distinctive outcome or a single result in a constantly anticipated response. Cooperation is what happens when several groups work together to achieve goals that are generally of mutual benefit. Based on the results of the partial test (t-test), it was explained that cooperation has a positive and significant relationship to the operational performance of packaged coffee powder SMI in Sigi District.

Based on the results of this research, it can be seen that all packaged coffee powder in Sigi District agree on the implementation of cooperation between restaurant suppliers and consumers. Cooperation is essential not only for profit now but also for as long as possible. This is obtained when packaged coffee powder SMI requires material shipments for any urgent needs. Providers can immediately provide these requests because connections that have been well established so far, with good cooperation, can also establish good connections so that it will provide profit and benefit on shipping costs.

The results of this research are in line with research that has been conducted by Ariani and Dwiyanto (2013), which explains that cooperation has a positive and significant effect on operational performance (Case Study on SMI processed food typical of Padang, West Sumatra). Research conducted by Ardianti (2019) also explains that there is a positive and significant relationship between cooperation and operational performance in UKM Bakpia in Yogyakarta.

#### **The Integration Process Has a Positive and Significant Effect on the Operational Performance of Packaged Coffee Powder SMI in Sigi District**

Every packaged coffee powder SMI wants their business to be superior to other packaged coffee powder so that it is not only serving the consumer that is prioritized, but the supply chain management network and all chains in the procurement of goods must also be considered. Based on the results of the t-test, it was explained that process integration has a positive and significant relationship to the operational performance of packaged coffee powder SMI in Sigi District.

Based on the results of this study, all packaged coffee powder SMI in Sigi District agree with the application of process integration. Because process integration shows a complex process of cooperation between packaged coffee powder SMI, suppliers, and consumers, the activity of distributing goods from suppliers gets good control. The ordering process from packaged coffee powder SMI to consumers is also good, so it will increase SMI profits and provide satisfaction for all related parties.

The results of this research are in line with research conducted by Ariani and Dwiyanto (2013), which explains that process integration has a positive and significant relationship to operational performance (Case Study on SMI processed food typical of Padang, West Sumatra). Research conducted by Ardianti (2019) also explains that there is a positive and significant relationship between process integration and operational performance in Bakpia SMEs in Yogyakarta.

#### **CONCLUSION AND SUGGESTION**

Results of the research and discussion reveals that supply chain management, consisting of information sharing, long-term relationships, cooperation, and integration processes, has a positive and significant relationship to the operational performance of packaged coffee powder SMI in Sigi District. Information sharing has a positive and significant relationship to the operational performance of packaged coffee powder SMI in Sigi District. The long-term relationship has a negative but significant relationship to the operational performance of packaged coffee powder SMI in Sigi District. Cooperation has a positive and significant relationship to the operational performance of packaged coffee powder SMI in Sigi District. The integration process has a positive and significant relationship with the operational performance of packaged coffee powder SMI in Sigi District.

#### **REFERENCES**

- Anatan dan Ellitan, L. (2008). *Supply Chain Management Teori dan Aplikasi*. Bandung: Alfabeta.
- Ardianti, K. (2019). Analisis Pengaruh Supply Chain Management terhadap Kinerja Perusahaan. *Journal of Chemical Information and Modeling*, 53, 160
- Ariani, D., dan Dwiyanto, B. M. (2013). Analisis Pengaruh Supply Chain Management Terhadap Kinerja Perusahaan (Studi Pada Industri Kecil dan Menengah Makanan Olahan Khas Padang Sumatera Barat). *Diponegoro Journal of Management*, 30–39.
- Chopra, S., dan Meindl, P. (2007). *Supply Chain Management: Strategy, Planning, and Operation*. New Jersey: Pearson Prentice-Hall, Inc.
- Danastry, D. A. (2018). Pengaruh Ketergantungan dan Relationship Commitment pada Logistik Outsourcing terhadap Kinerja Operasional Perusahaan. Institut Teknologi Sepuluh November.
- Devaraj, S., Esfahani, A. S., Ismail, S., Ramanathan, S., dan Yam, M. F. (2010). Evaluation of the antinociceptive activity and acute oral toxicity of standardized ethanolic extract of the rhizome of *Curcuma xanthorrhiza* Roxb. *Molecules*, 15(4), 2925–2934.
- Ghozali, I. (2006). *Aplikasi Analisis Multivariate dengan Program SPSS (Edisi Ke 4)*. Semarang: Badan Penerbit Universitas Diponegoro.
- Heizer, Jay, dan Barry, R. (2015). *Manajemen Operasi: Manajemen Keberlangsungan dan Rantai Pasokan*. Jakarta: Salemba Empat.
- Rasyid, R. G. A. (2015). Analisis Rantai Pasokan (Supply Chain) Kopi Rakyat di Kabupaten Jember. repository.unej.
- Russel, dan Taylor. (2006). *Operations Management: Quality and Competitiveness in a Global Environment (5th ed.)*. Wiley India: Pvt. Limited.
- Siagian, S. P. (2005). *Filsafat Administrasi*. Jakarta: CV. Gunung Agung.
- Siahaya, W. (2013). *Sukses Supply Chain Management Akses Demand Chain Management*. Jakarta: Penerbit In Media.
- Sobandi, K. A., dan Kosasih, S. (2014). *Manajemen Operasi*. Jakarta: Mitra Wacana Media.
- Sugiharto, D. A. (2017). Pengaruh Implementasi Internal Supply Chain Management Terhadap Kinerja Operasional Perusahaan (Studi Kasus Pada PT. Pan Brothers Tbk, Boyolali). *Admisi dan Bisnis*, 17(3), 183-192.
- Sugiyono. (2018). *Metode Penelitian Kombinasi (Mixed Methods)*. Bandung: CV Alfabeta.
- Suharto, E. (2013). *Membangun Masyarakat Memberdayakan Rakyat*. Bandung: Refika Aditama.