

Supply Chain Coordination and Integration on Supply Chain Performance in Food Business

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Abstract. The food supply chain is still experiencing obstacles, especially in the high level of damage or loss in the delivery of products to consumers, reaching 20%. Supply chain coordination and integration needs to be implemented so that connectivity from suppliers, manufacturers and distributors can carry out their roles properly to increase the value of food products. Problem in the foods production supply chain is the value received by each vendor in supply chain that is suppliers, manufacturers and distributor and retailer still unbalanced, especially at the upstream level, especially farmers or ranchers who are the starting point of the supply chain to get high value. This indicates that the performance of the supply chain for food products is still low, but it is necessary to pay attention to the performance of the companies that carry out these supply chain activities. This study aims to determine the effect of supply chain coordination and integration on supply chain performance through organizational performance. This research is a literature review, looking for solutions from various literatures both journals and books that support this study. The results of this study indicate the effect of supply chain coordination and integration to supply chain performance.

Keywords: Coordination, Supply Chain Integration, Supply Chain Performance,

1 Introduction

It is hoped that the empowerment of the Indonesian national economy will be able to align the structure of the national economy, accelerate national economic growth, reduce the level of open unemployment, reduce the level of poverty, dominate the real sector. And improve the distribution of community income. So that by achieving the target of business growth in Indonesia, it is hoped that it will be able to support the fields of education, health and ultimately be able to provide welfare for the Indonesian people.

Business organizations strive to gain a competitive advantage in the market. Currently, competition is not only competing between one company, but also competing between supply chain networks. So that the successful marketing of a product must be supported by a supply chain network ranging from suppliers to distributors who deliver products to consumers. An important dimension in the supply chain relates to how a business organization builds partnerships through supply chain coordination and integration. By coordinating the supply chain, supply chain performance can be improved.

Conflicts in supply chain networks often occur, where traditional manufacturers and retailers are involved in vertical and horizontal competition. Vertical competition occurs when a factory sells to wholesalers at above its marginal cost, so retailers sell for much more.

Meanwhile, horizontal competition occurs when manufacturers and retailers sell substitute products. So that there is a dual channel in the supply chain.

Supply chain coordination can be achieved by contracting to create optimal decisions from a centralized supply chain that is balanced with a centralized supply chain. Supply chain coordination strategies are studied from various literatures regarding return policies, sales policies, production sharing contracts [1]

Supply chain integration must consider the strategic, tactical and operational levels [2]. Supply chain integration takes into account three levels ranging from strategic, tactical and operational. So that in this study we want to see the key factors in the optimal implementation of the internal resources of the organization, vendors and customers of the product because supply chain integration has a close relationship between product design and implementation of supply chain integration[3].

in this research to address this problem of research, the current study explain the change of sourcing process in company to integration of supply chain[4] The problem in the competitiveness of food products in West Answers, one of which is due to the relatively expensive raw materials that must be purchased. In addition, the quality of existing food products is still lower than imported products. So that the scientific power from the price side becomes less. The high price of raw materials required is due to the relatively long supply chain of food products. In addition, food products that are easily damaged make shipments made to be carried out quickly. So can't run the process efficiently.

Tangible and intangible resources invested in supply chain networks can be integrated with information networks through supply chain partners. More specifically, formal and informal information routines require time and effort to develop possible integration of informational flows through the firm's supply chain. Investments in more specific assets and a long-term orientation in relation to the development of routine interactions [5].

In terms of supply chain management for agricultural products, there are various activities carried out starting from seedling activities, production and processing of agricultural products, cultivation of high-economic agricultural crops. Commodities that are widely planted as agricultural products include broccoli, cayenne pepper, chayote, corn. In terms of production by farmers, supervision to distribution of agricultural products produced. Products produced by farmers are then purchased by collectors / dealers [6].

Information technology really supports the creation of an effective integration of supply chain activities. The existence of company ICT is able to improve and improve the performance of its supply chain. Various studies on information and communication technology greatly support supply chain integration that can improve supply chain performance optimally[7].

Supply chain integration can provide benefits for small entrepreneurs, especially in the areas of food and beverages. The food and beverage industry requires a continuous supply of raw materials so that there needs to support consistent suppliers to supply these raw materials. One of the problems in food products is the breadth of the food supply chain from suppliers to consumers so that the costs incurred become inefficient. In addition, food products have a large capacity in distribution so that the product loss rate reaches 20% starting from suppliers to consumers [8]

So that the identification of problems in this study is to determine the dimensions of coordination and integration of the supply chain through the performance of the food product business.

2 Theoretical Study

2.1 Coordination

The existing coordination, especially in terms of information exchange, has gone well and is carried out continuously. The availability of complete information has a significant impact on supply chain performance. The parties in the supply chain not only share information, but also work together to find solutions to the problems at hand [9]

[10] stated that the coordination that exists along the *modern supply chain* today is not only a transactional relationship, but rather leads to a *mutual relationship*. The existence of coordination in the supply chain provides better benefits for each member of the supply chain which in turn can strengthen each member of the supply chain.

2.2 Supply Chain Integration

SCM focuses on the time-efficient movement of resources and the integration of various functions and pressures that adapt to resources [11] p. The background of integration is a state of interdependence. Dependence with parties outside the organization with an increasing portion makes the company must integrating activities with partners and the supply chain so as to be more effective in delivering products to the market [12]

The dimensions of Supply Chain Integration consist of: 1) Relationships with Customers, 2) Exchange of information through networks, 3) Use of Computerized Systems, 4) Sharing of Market Information, 5) Sharing of Product Availability Information, 6) Process of Order Fulfillment Management, 7) Level to customer satisfaction, 8) Evaluation of Customer Satisfaction

2.3 Supply Chain Performance

Supply chain performance has been conceptualized in various ways (Vaart and Donk in [7]). Supply chain performance has been translated into a measure of financial and operational performance that refers to suppliers and buyers. This shows that supply chain performance is very focused on buyers and suppliers. So that in the performance of the supply chain, it is supported how the upstream and downstream chains provide a fast and appropriate flow of material, money and information.

Suggest that measuring supply chain performance should need a close watch on the logistics performance of a company. It includes the level of fulfilment, the confirmed order level, response delays, supplies, and delay (Kleijnen and Smits, 2003 in [13]). It aims to analyze four dimensions: commercial performance reliability, flexibility / responsiveness, supply chain costs and commitment capital turnover.

Vendors in supply chain integration are an important part of building collaborations that improve supply chain performance so that there is a significant influence between supply chain coordination and integration on the performance of the supply chain for food products. Build a deep network of vendors that support flow that reduces barriers between partners in the supply chain [14]

3 Research Method

This study is a literature review, the data used are secondary data sourced from various literatures consisting of journals, books, the internet. The author examines various

phenomena discussed in journals and other literature related to the writings presented by the author. The study discussed is about the variables of supply chain coordination, supply chain integration, supply chain performance and business performance. This research use 60 journal about Supply chain coordination, supply chain integration and supply chain performance.

4 Results And Discussion

4.1 Supply Chain Coordination

Coordination in the food product *supply chain* is not just a transactional relationship, but rather leads to a *mutual relationship*. Member of the supply chain who coordinates to become a member of the supply chain with a closer relationship needs to pay attention to the added value of each member of the supply chain. Dimensions:

1. Simple information exchange between members of the supply chain. Simple information is important to share with supply chain members. The information that needs to be shared is related to information related to product flows.
2. Formulated information (ease of information, involvement of parties, intensity of information exchange is important to be applied in food products because it can have a positive effect on supply chain performance.
3. In the coordination that is carried out in the food product business, there is a need for cooperation in the form of partnerships by entering into cooperation contracts that can provide certainty regarding the supply and demand of food products.

4.2 Supply Chain Integration

The integration process includes the activities of obtaining, sharing, and combining strategic knowledge and information flows that connect and coordinate external parties of the organization that are directly related to the most efficient flow of products and information from food products . In my study, I carried out supply chain integration involving farmer groups or cooperatives so that farmers have better bargaining power. Supply Chain Integration Dimensions.

Relationships with Customers. Integration here is where the cooperative or farmer group is able to liaise the farmers with their customers.

1. Exchange of information through networks. An effective exchange of information is needed because food products are specific in the supply chain process
2. Use of Computerized Systems. Computerized systems make it easy to exchange information quickly.
3. Sharing of Market Information. Farmers need to know a picture of the demand for a food product
4. Sharing of Product availability information
5. Order Fulfillment management process
6. Level of Customer Complaints
7. Evaluation of Customer Satisfaction

4.3 Organizational Performance

Organizational performance as an achievement obtained by a company in one period is always identified with performance, be it employee performance or company performance.

Performance shows the results obtained based on the ability that has been sacrificed in one period. So that the achievements of an individual / company show their performance in one period. Organizational performance can be measured by the business performance and management performance of the organization.

4.4 Supply Chain Performance

Supply chain performance can be measured by the SCOR (*Supply Chain Operations Reference*) method . The SCOR model was developed in 1996 by the Supply Chain Council (SCC). It aims to analyze four dimensions: commercial performance reliability, flexibility/responsiveness, supply chain costs and commitment capital turnover.

4.5 Influence Between Variables

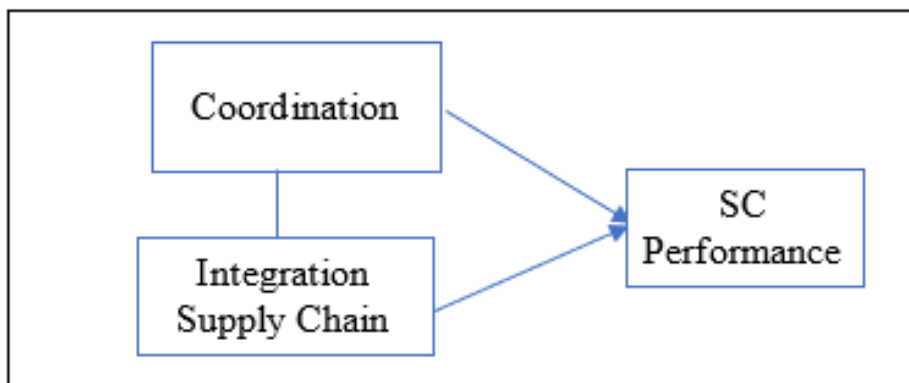


Fig 1. Modeling Supply Chain Performance influenced by Coordiantion and Integration Supply Chain

The model built by the author based on several previous studies for the effect of supply chain coordination and integration on supply chain performance through business performance, based on various references, can be described as follows.

4.6 Effect of supply chain coordination and integration on company performance

Partially, the performance of coordination affects the performance of the company apart from that. In addition, logistics integration affects company performance, but external integration is less influencing company performance that coordination between organizations has a significant effect on company performance.

Based on the analysis of several journals, the results show that there is a significant influence between coordination and integration of the supply chain on company / organizational performance. The existence of a positive relationship between coordination, integration and supply chain performance from several literatures shows that supply chain performance is influenced by coordination and integration[15]. The results of this study indicate that in the food supply chain it is very important to pay attention to how supply chain coordination and integration is concerned. Perishable food products require a fast and efficient supply chain to support the value optimization of these food products.

4.7 Effect of Supply Chain Performance on Business Performance

Based on previous research, there is a significant influence between the influence of supply chain performance on business performance. As the results of research conducted

Where a significant difference between the performance of the supply chain to performance effort.

4.8 Effect of supply chain coordination and integration on supply chain performance through company performance .

Based on analytical research in various journals, there is an influence between supply chain coordination and integration on supply chain performance through organizational performance. Some literature shows that suppliers greatly contribute to supporting supply chain performance. This is also shown if buyers measure the performance of the base chain based on competitive and internal factors [16]

5 Conclusion

Supply chain coordination can be measured by the dimensions of information exchange , formulated information and partnerships. Meanwhile, supply chain integration can be measured by) Relationship with Customers, 2) Exchange of information through networks, 3) Use of Computerized Systems, 4) Sharing of Market Information, 5) Sharing of Product Availability Information, 6) Process of Order Fulfillment management, 7) Level of Complaints Customers, 8) Evaluation of Customer Satisfaction. Organizational performance can be measured by business performance and management performance whereas supply chain performance can be measured by competitive performance and internal factors . Based on the discussion on points previously, there was the effect of supply chain coordination and integration on supply chain performance through organizational performance .

6 Advice

The next Research to do field research on the effect of coordination and integration of the supply chain against supply chain performance through the performance of the organization. So that we get more comprehensive results that directly discuss the phenomena in food products.

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