International Journal of Economics, Business and Innovation Research
https://e-journal.citakonsultindo.or.id/index.php/IJEBIR
E-ISSN : 2964-0865
IJEBIR

Analysis Of The Tempe Supply Chain In Lambusa Village, Konda District, Konawe Selatan Regency (Case Study Of Novia Ayu's Industry)

Insyira Afifah Bakri[1], Abdul Gafaruddin[2] ,Munirwan Zani[3]

[1]Student of the Department of Agribusiness, University of Halu Oleo
[2]Lecturer in the Department of Agribusiness, Faculty of Agriculture, Halu Oleo University
[3]Lecturer in the Department of Agribusiness, Faculty of Agriculture, Halu Oleo University

Email:insyiraafifah@gmail.com,gafaruddinabdul45@gmail.com,
munirwanzani@yahoo.co.id

Abstract

This study aims to find out how product flow, financial flow and information flow in the tempe Novia Ayu supply chain in Lambusa Village, Konda District, Konawe Selatan Regency. This study was analyzed using descriptive analysis methods and calculating marketing margins in this case costs and profits. The results showed that supply chain flows consisting of product flows, information flows, and financial flows in both supply chains were in accordance with the requests and agreements of supply chain actors, including the timeliness and arrival of tempe products. There are two marketing channels in this study, namely, marketing channel I: production input → tempe Novia Ayu → final consumer, marketing channel II: production input → tempe Novia Ayu → retailer → end consumer. Based on the tempe marketing channel in Lambusa Village, Konda District, South Konawe Regency, it shows that the level of marketing efficiency varies in each marketing agency. In addition, the marketing channel that has the most efficient value is located on marketing channel I.

Keywords: Supply Chain Concept, Tempe and Efficiency.

INTRODUCTION

Agriculture is a sector that plays an important role in that agricultural commodities can be grown and developed to support regional income. Having a good quality product,

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

at the right place and at the right time will enable the company to survive and win the business competition in the agricultural sector.(Rantung et al., 2016).

Soybean (Glycine max (L)) is the most important food commodity in Indonesia after corn and rice, which acts as a source of vegetable protein which is important in the context of improving people's nutrition because it is safe for health and cheap. Soybeans are widely used as processed food ingredients such as tempeh, tofu, soy sauce, soy milk, tanco and so on. As the population increases, the need for soybeans will also increase, this will result in the government still having to import quite a large amount of soybeans (Nursyamsi et al., 2013). Indonesia's economic growth and population continue to grow from year to year. This growth will spur the consumption of tempeh products to increase as well. Supply chain management is a timely approach concept to address the problem of fulfilling consumer demand. Product delivery time to the final consumer is demanded as efficiently as possible while maintaining product quality. This arrangement is important to do because there are several links involved in the tempe supply chain (Tompodung et al., 2016).

The supply chain for tempe products produced by Novia Ayu in Lambusa Village, Konda District, South Konawe Regency, has coordinated with other supply chain actors such as suppliers and retailers, but the coordination has not been very good. This is because Novia Ayu's industrial business has a flow of information that is not optimal. There is often an excess of the number of products circulating in the market compared to the level of consumer demand or a shortage of products circulating in the market compared to the level of consumer demand. So that this phenomenon will affect product flow, where there are products (tempe) that are still left because they are not sold out in one production caused by problems contained in the flow of information.

Tempe will also experience an increase in line with the increasing population and increasing people's purchasing power as well as growing public awareness of nutritional needs. This is what underlies researchers to conduct research on Supply Chain Analysis and Marketing Efficiency of Tempe in Lambusa Village, Konda District, South Konawe Regency (Case Study of Novia Ayu Industry).

RESEARCH METHODS

This research was conducted in Lambusa Village, Konda District, South Konawe Regency, Southeast Sulawesi Province. The research location was determined purposively (intentionally) (Sugiyono, 2016) with the consideration that Novia Ayu's business is large and has long existed in the area and also the business of making tempeh

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

is a business that is mostly carried out by the community today because the process is easy and not time-consuming. it takes a long time to make besides that, tempeh is widely consumed by the public and has promising prospects. The research was conducted from November 2021 to January 2023. The informants in this study were suppliers of production inputs, the tempe industry and 5 retailers.

The data analysis in this research is descriptive analytic, to determine the flow of the supply chain. The supply chain flow will be analyzed descriptively by describing the patterns of product flow, information flow, and financial flow in Novia Ayu's tempeh business, Lambusa Village, Konda District, Konawe Selatan Regency.

RESULTS

Overview of Informants

Age

Table 1 General Description of Informants by Age in Lambusa Village, Konda District, South Konawe Regency, 2022.

No	Age (Year)	Amount (Person)	Percentage (%)
1	35-46	4	57,14
2	50-70	3	42.86
Amount		**7**	**100**

Source: Primary Data After Processing, 2022

Table 1. explains the general description of informants based on age, where the number of informants aged 35-46 years with a percentage of 57.14% is 4 people who work as retailers and a supplier of the main raw material, namely soybeans. Meanwhile, there were 3 informants aged 50-70 years with a percentage of 42.86%, one of whom worked as a tempe product maker and also a retailer.

The informants consisted of 7 people, there was 1 person who was not in the productive or non-productive age category, while the other informants were included in the productive age because according to Subri (2003) the productive age population is the population in working age 15-64 years who can produce goods and services if there is a demand for them and they want to participate in the activity. And also according to Daniel (2002), that which includes productive age is the age range of 15 to 64 years.

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Economics, Business and Innovation Research
https://e-journal.citakonsultindo.or.id/index.php/IJEBIR
E-ISSN : 2964-0865
IJEBIR

Total Dependents (Soul)

.

Table 2 Overview of Informants Based on Number of Family Dependents in Lambusa Village, Konda District, South Konawe Regency, 2022.

No	The number of dependents (Soul)	Amount (Soul)	Percentage (%)
1	1-4	4	57,14
2	>5	3	42.86
Amount		**7**	**100**

Source: Primary Data After Processing, 2022

According to Soeharjo and Patong in Saranani (2016), that includes dependents of small families, which range from 1-4 people while family dependents > 5 people include large families. Based on Table 4.5. The results of the study show that the number of dependents with 1-4 dependents is 4 with a percentage of 57.14% and families with > 5 dependents are 3 with a percentage of 42.86%. With a large number of family dependents, it will encourage informants to carry out activities, especially in finding and increasing their family income so that the daily needs of family members can be met.

Level of education

Table 3. General Description of Informants Based on Education Level in Lambusa Village, Konda District, South Konawe Regency, 2022.

No	Education Level	Amount (Soul)	Percentage (%)
1	SD/Equivalent	3	42.86
2	SMA/Equivalent	4	57,14
Amount		**7**	**100**

Source: Primary Data After Processing, 2022

Table 3. shows that informants with the last education in elementary school/equivalent amounted to 3 people with a percentage of 42.86% of whom were raw

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

material supplier professions and also tempe industry owners and retailers, while SMA/equivalent numbered 4 people with a percentage of 57.14% who were traders. retailer. Based on the level of education, it can be said that the level of education possessed by the respondents is quite adequate, even though the highest education is SMA/equivalent but this can affect the mindset in running a business and the income earned.

Product Flow, Information Flow and Financial Flow

The supply chain is an interrelated relationship with product flow, information flow, financial flow and starts from suppliers of raw materials, production facilities and infrastructure, retailers to final customers or consumers. The supply chain is a network of companies that are interconnected and work together to create and deliver products to the hands of the final consumer.

Based on Figure 4.2, the tempe (Novia Ayu) supply chain in Lambusa Village, Konda District, South Konawe Regency illustrates that there are three flows, namely product flows, information flows and financial flows. The flow of products flows from upstream to downstream, namely from Novia Ayu's tempeh to consumers who consume tempeh. The flow of information flows in the chain reciprocally. Financial flows flow from downstream to upstream, namely from the end consumers of tempe to tempe Novia Ayu. Figure 4.2 also illustrates that there are two supply chain flow patterns, namely chain I starting from supplier → tempe Novia Ayu → consumer. Chain II consists of suppliers → Tempe Novia Ayu → retailers → consumers. This is different from the research conducted by Ajusa et al., (2020) that in the results of his research there are 3 supply chain flow patterns, namely chain one from raw material suppliers, tempe agro-industry, tempe retailers, street vendors (consumers). The chain of two raw material suppliers, the tempe industry, tempe retailers, consumers. Chain three, namely raw material suppliers, tempe industry, consumers.

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

International Journal of Economics, Business and Innovation Research
https://e-journal.citakonsultindo.or.id/index.php/IJEBIR
E-ISSN : 2964-0865
IJEBIR

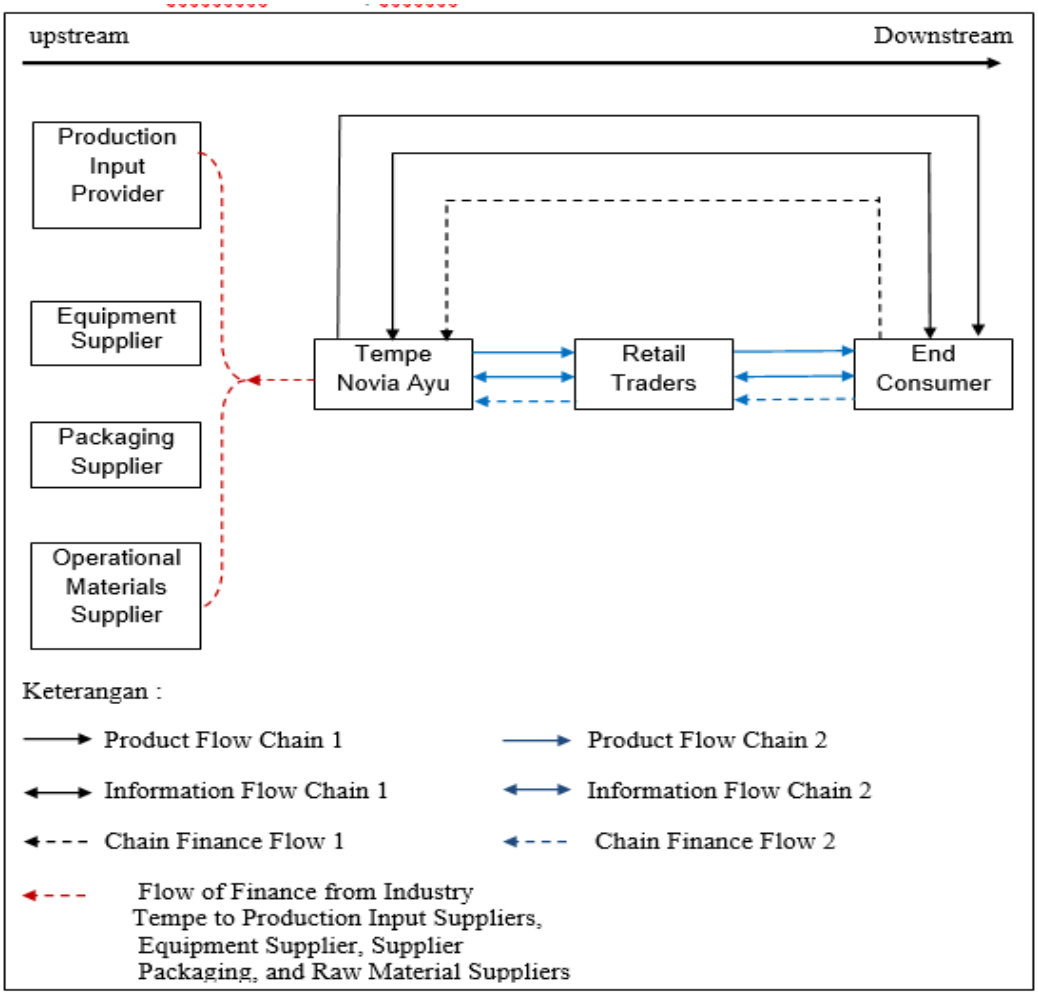


Figure 1. Supply Chain Flow in Lambusa Village, Konda District, South Konawe Regency, 2022

The product flow in the first chain starts from providers of production inputs that distribute raw materials in the form of soybeans to the tempeh industry. The tempe industry then processes soybeans into tempeh which is then sold to final consumers or people who live in Lambusa Village and around the village, this is in line with the results of Surni et al., (2020) research that product flow flows from producers to consumers. Sales of tempe industry business to end consumers are carried out face to face where the end consumers come directly to the tempe industry according to their needs, product

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

transportation is carried out by end consumers using motorbikes or on foot. This happened because there was an agreement between the two supply chain actors,

Product flow in the second chain illustrates that production input providers distribute soybeans in accordance with the quantities and prices agreed upon by the tempe industry. The tempe industry processes the soybeans into tempeh products which will be distributed to retailers as many as 15,000 packs a month with an average purchase of 500 packs a day. The distribution of tempe products is carried out by the tempe industry and retailers. The tempe industry distributes by car with a time range of around 1 to 2 hours. Purchases from retailers from the tempe industry are then sold to final consumers by way of retail or per pack.

The flow of information that occurs in the tempe supply chain between links in Lambusa Village, Konda District, South Konawe Regency, has not been optimally intertwined but is still relatively smooth because even though they have not utilized information technology in the form of mobile phones which are used as a means of communicating before meeting in person but due to the flow products that are intertwined every day by producers so that the information conveyed continues to move easily, accurately, efficiently and effectively, so this is in accordance with the opinion of Nurfadilah (2017) that one of the key factors for optimizing the supply chain is to create a flow of information that moves easy and accurate movement between these networks or links, and the effective and efficient movement of goods that results in maximum satisfaction to customers.

The flow of information in the second chain occurs reciprocally between the tempe industry, retailers and end consumers. Information between the tempe industry and retailers regarding the quantity or number of goods, transportation time, and the selling price set by the tempe industry business. By meeting in person, if the quantity, transportation time, and selling price of tempe reach an agreement point, a sale and purchase transaction occurs and vice versa, if there is no agreement point, a sale and purchase transaction does not occur. The flow of information between retailers and final consumers also occurs reciprocally regarding the availability of goods and the selling price of goods. A sale and purchase transaction will occur if the goods and prices are agreed upon.

The financial flow in the third chain emphasizes the method of payment for sale and purchase transactions in each link using the payment method in cash or in cash so that there is no disruption to the payment process. This is in accordance with the results of research by Topodum et al., (2016) regarding supply chain analysis.) tilapia fish in Eris

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

District, Minahasa Regency that the payment method in each link emphasizes the cash payment method.

The financial flow of the supply chain based on Figure 4.2 begins with the tempe industry buying production inputs from suppliers in the form of raw materials, namely soybeans at a price of Rp. in purchasing soybeans in a month as much as IDR 123,200,000.00. Where the raw material is obtained from a supplier of soybeans in the Kendari City Korem market. The tempe industry also incurs a labor fee of Rp. 8,000,000.00 a month. The workers are recruited directly by calling the community in Lambusa Village, Konda District, Konawe Selatan Regency. The tempe industry also purchases equipment to facilitate the tempe production process. the purchase cost for all the equipment used is IDR 18,018,000, the equipment obtained comes from machine shops, markets and wood sellers. Tempe production activities are inseparable from operational costs, these costs are channeled to suppliers or providing institutions such as PLN, PDAM and gas stations in the form of electricity, water and transportation costs of IDR 1,982,000.00 in a month. The financial flow of the tempe industry to suppliers in Figure 4.2 is paid in cash so that the distribution of production inputs runs smoothly. water and transportation costs of IDR 1,982,000.00 in a month. The financial flow of the tempe industry to suppliers in Figure 4.2 is paid in cash so that the distribution of production inputs runs smoothly. water and transportation costs of IDR 1,982,000.00 in a month. The financial flow of the tempe industry to suppliers in Figure 4.2 is paid in cash so that the distribution of production inputs runs smoothly.

The financial flow in the first chain starts from the end consumer or the general public to the tempe industry, the financial flow is in the form of product purchases by the final consumer of Rp. 5,000.00 to Rp. 10,000.00 of tempe per pack, both small and large. The payment mechanism for the final consumer to the tempe industry in this chain is a cash transaction so that there is no disruption to the flow of finance in this chain.

The financial flow that occurs in the second chain starts from the final consumer to the retailer and ends in the tempe industry. The money that flows from the final consumer to the retailer is in the form of purchases made by the final consumer with an average price of Rp. 5,000.00 per pack of 300 grams or Rp. 5,000.00 per 4 packs of 125 grams. Then the proceeds from the sales of retailers are channeled to the tempe industry by purchasing an average of Rp. 1,500,000.00 for 260 tempeh measuring 125 g and 140 tempeh measuring 300 g in a month, with an average price of Rp. 5,000.00 per pack and IDR 5,000.00 per 4 packs of product sales to retailers are used as capital to sustain production costs.

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

CONCLUSION

Based on the results of the analysis of the Tempe Supply Chain in Lambusa Village, Konda District, Konawe Regency (Case Study of Tempe Novia Ayu), it can be concluded that the tempe supply chain in Lambusa Village, Konda District, South Konawe Regency consists of the main actors and supporting actors, namely suppliers of raw materials and production infrastructure, tempe industry, retailers and end consumers. There are two marketing channels, namely, marketing channel I: production input supplier → tempe industry → final consumer, marketing channel II: production input supplier → tempe industry → retailer → end consumer. Supply chain flows consisting of product flows, information flows, and financial flows in both supply chains are in accordance with the requests and agreements of supply chain actors, including the timely arrival of tempe products.

REFERENCE

Ajusa ZN, Abidin Z, Kasymir E. 2020. Abalysis of the Tempe Agro-industry Supply Chain in Gunung Sulah Village, Way Halim District, Bandar Lampung City. JIIA. 8(4).

Furqon C. 2014. Management Analysis and Supply Chain Performance of Strawberry Agribusiness in Bandung Regency. Journal of Agribusiness. 3(2).

Kambey SF. Kawet L. Sumarauw JS. 2016. Analysis of the Cabbage Supply Chain in Rurukan Village, Tomohan City. EMBA Journal : Research Journal of Economics, Management, Business and Accountants. 4(3).

Nursyamsi D, Raihan S, Noor M, Anwar K, Alwi M, Magtuah E, Khairullah I, Ar-Riza I, Simatupang RS. 2014. Agricultural Potential and Problems in Acid Sulphate Lands. Bogor. Ministry of Agriculture.

Ongirwalu DJ, Tumade P, Palandeng ID. 2015. Evaluation of Downstream Supply Chains in the Chili Commodity Logistics System at the Pinasungkulan Traditional Market in Manado. EMBA Journal :Journal of Economic Research, Management, Business and Accounting. 4(2).

Subroto AM, Kawet L, Sumarauw J. 2015. Performance Evaluation of Supply Chain Management in Rice Production in Pansen Village, Kakas District. EMBA Journal : Research Journal of Economics, Management, Business and Accounting. 3(1).

Sugiyono. 2016. Quantitative, Qualitative and R&D Research Methods. Bandung. ALPHABET.

Sundari S, Tiyar M. 2018. Supply Chain Analysis and Selling Prices of Purebred Chicken Eggs at the Way Halim Market, Bandar Lampung. Industrial Journal. 2(1).

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

Surni. 2015. Marketing of Agricultural Products. Kendari: Halu Oleo University.

Tamuntuan N. 2013. Analysis of Carrot Vegetable Supply Chain Distribution Channels in Rurukan Village, Tomohan City. EMBA Journal : Research Journal of Economics, Management, Business and Accounting. 1(3).

Tubagus LS, Mangantar M, Tawas HN. 2016. Supply Chain Analysis of Cayenne Pepper Commodities in Kumelelembuai Village, Tomohon City. EMBA Journal : Research Journal of Economics, Management, Business and Accounting. 4(2).

Tompodung E, Worang FG, Roring F. 2016. Analysis of the Mujair Fish Supply Chain in Eris District, Minahas Regency. EMBA Journal : Research Journal of Economics, Management, Business and Accounting. 4.(3).

Purwaningsih R, Arief M, Rahmawati D. 2016. Supply Chain Analysis and Broiler Distribution. Journal of Mechanical and Industrial Engineering. 176-183.

Copyright at authors some right reserved this work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.