



ANALYSIS OF THE CORN TRADING CHAIN AND MARGIN IN OGAN KOMERING ULU REGENCY

by

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ABSTRACT

This study aims to analyze the corn trading chain and margin in Lengkiti District, OKU Regency, South Sumatra Province. The research was carried out deliberately considering that Lengkiti District, OKU Regency is the center of corn farming in OKU Regency. The research was carried out in April 2022. The research method used was a survey method and the sampling method used was a simple random sampling method. The analytical tool used in processing research data is a mathematical method with a margin formula to calculate marketing margin and marketing channel efficiency. Discussion of research results is carried out by descriptive analysis. The result show that the marketing channels in the research area consist of three marketing channels, the first marketing channel from farmers to consumers. The second marketing channel is from farmers to collectors and then to consumers. And the third is from farmers-traders-collectors-sub-district agents then to consumers. Marketing costs consist of transportation costs, drying, labor, and loading costs. Marketing efficiency in channel I is $1\% > 33\%$, marketing efficiency in channel II is $1.1 > 33\%$ and in marketing III is $1.2 > 33\%$

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1. INTRODUCTION

Corn (Zea Mays) is a commodity that has economic value and has a great opportunity to be developed because of its composition as the main source of carbohydrates and protein after rice. Almost all parts of the corn plant can be used for various purposes, ranging from fruit, stems, to leaves (Adhikari and Putnam, 2020; Chang et al., 2018; Thaore et al., 2020). Corn (Zea Mays) is an annual plant that has a round, segmented stem and a height between 60-300 cm. This plant can grow in the lowlands to the highlands (0-1,300 m above sea level). Optimal rainfall is between 85-100 mm/month and falls evenly throughout the year (Danandeh Mehr et al., 2019; Souza et al., 2020).

South Sumatra is one of the potential areas to produce corn. Corn production centers in South Sumatra province in 2019 are South Ogan Komering Ulu Regency, Ogan Komering Ulu Regency, and Ogan Komering Ulu Regency. In 2019, corn production in Ogan Komering Ulu Regency reached 73,983 tons (BPS South Sumatra province, 2021).

Lengkiti Sub-district is a sub-district which is the center of corn production in Ogan Komering Ulu Regency. Therefore, Lengkiti District has a significant role in the economy of Ogan Komering Ulu Regency. Corn harvested area in Lengkiti District in 2019 was 7398 hectares, in 2020 it was 6685 hectares, and in 2021 it was 6005 hectares. There are thirteen sub-districts in OKU District, Lengkiti District is the center of corn production, Lengkiti District is the largest sub-district that grows corn. The land area for corn plants in Lengkiti District in 2021 is 6005 ha where the village is the center of corn farming in Lengkiti District.

Corn marketing channel in Lengkiti Subdistrict is an important factor in facilitating the flow of corn commodity from corn producers to corn consumers. The selection of the right corn marketing channel will determine the efficiency and price of corn at the consumer level. Inefficient marketing channels will occur if the marketing costs are getting bigger and the value of the products being marketed is getting smaller. Thus, it is necessary to have efficient control over the costs of distributing physical distribution costs, costs incurred due to damage in distribution or distribution and delays in delivery of goods to customers (Kotler and Armstrong, 2012).

A good economy can be achieved by paying attention to marketing distribution. Good marketing channels can ensure the availability of products that are needed by the community. Without distribution, producers will have difficulty marketing their products and consumers must try hard to get producers to enjoy their products. The largest corn production produced in Lengkiti District has not been followed by good marketing distribution management so that the delivery of products from producers to consumers has not been effective and efficient. Marketing distribution must be managed properly to facilitate the delivery of products from producers to consumers effectively and efficiently (Sudiyono, 2019).

The success of corn farming has allegedly been a driving force for the development of farming in various other commodities, namely smallholder rubber plantations, vegetables, cattle business, etc. However, the success of this corn farming with the existing marketing institutional system still needs to be proven whether the created marketing channels have actually run efficiently. Because the large amount of production and the expansion of corn farming activities have not been a guarantee of reflecting an efficient marketing system, especially seen from the profits received by farmers (Wowiling et al., 2019).

Improvement of marketing distribution improvement as one of the most effective ways to increase agricultural productivity. Marketing is a process that must be passed by farmers as producers to distribute their products to consumers. It is often found that there is a long marketing chain with many marketing actors becoming large which will ultimately affect the price level (Sari et al., 2019). Good marketing distribution can assist farmers in promoting product development and reduce costs of exchange services, storage and transportation, thereby reducing the gap between farmers and consumer prices for the benefit of others. The difference in prices at the farmer, collector and consumer level indicates that marketing distribution is still not effective and efficient so that the delivery of products from producers to consumers is still difficult to market and prices for each level of marketing actors fluctuate (Soekartawi, 2011).

In Indonesia, the agricultural sector has an important role in the national economy. The ability of the agricultural sector to contribute to the Gross Domestic Product (GDP), in the absorption of labor and the creation of employment/business opportunities in increasing people's income, as well as a source of foreign exchange earnings. The agricultural sector should no longer only act as a supporting actor for national development, but must be the main actor in line with the industrial and other sectors (Rahim, 2015).

Corn farmers in Ogan Komering Ulu Regency are still not clear about marketing their products. Corn marketing in Ogan Komering Ulu Regency is still weak. In addition to the weak bargaining position of farmers, low quality and low amount of production resulted in a decrease in corn prices so that corn farmers' incomes also decreased. The weakness of the corn marketing system in Ogan Komering Ulu Regency is that there is often a price difference between the price at the farmer level and the price at the consumer level, resulting in an imbalance of prices received by farmers and final consumers. Usually each marketing channel has a different price spread and share margin. Thus, it is important to analyze the marketing of corn food commodities in Ogan Komering Ulu Regency, so that the results of this study can provide alternative production and marketing policies that will be taken by policy makers in the future. Several other inhibiting factors include the length of the market chain for corn products which results in the longer the market chain, the less profit the farmers will get. This is also related to the role of middlemen/retailers in this process due to the lack of institutional roles at the farmer level where the Marketing cannot be denied an important role in conducting marketing, distributing services and products from producers to final consumers as well as having relationships with business entities or individuals or companies that have ownership rights to the goods they market and assisting in the delivery of ownership rights for these goods or services from producers to consumers (Syifa et al., 2020). Based on this background, it is interesting to study further about marketing channels and corn marketing efficiency in Lengkiti District, OKU Regency, South Sumatra Province.

2. RESEARCH METHOD

The research method used was a survey method and the sampling method used was a simple random method. The research sample taken was 119 people from 399 populations.

The analytical tool used in processing research data is a mathematical method with a margin formula to calculate marketing margin and marketing channel efficiency. The research was carried out in April 2022 at Lengkiti



district, OKU Regency of South Sumatera Province. Discussion of research results is carried out by descriptive analysis. To answer the first objective of analyzing the existing trade chain in Lengkiti District, OKU Regency, it was recorded how many commercial institutions were involved in marketing of corn at the research location. From the involvement of the trading system, it can be analyzed how many chains of trade occurred and then the marketing costs are calculated, with the following equation:

Marketing Fee

Marketing costs (trading) are costs incurred for marketing purposes. The amount of marketing costs can be formulated as follows:

$$B_p = B_{p1} + B_{p2} + \dots + B_{pn}$$

Where:

B_p = Marketing costs

$B_{p1..n}$ = Marketing costs per agency

To answer the second objectives of the second studies, it is analyzed using the following trade system margin equation:

Trading Margin

The trading (marketing) margin is the difference between what consumers pay and what producers receive for their agricultural products. According to Soekartawi (2001), this trading margin can be calculated using the equation:

$$M_p = P_{ri} - P_{fi} \text{ or } M_{ji} = B_i + K_i$$

Where:

M_p = Corn marketing margin

P_r = Price at the consumer level

P_f = Price at farm level

To answer the third objective of research on the efficiency of the corn trade or marketing system, it can be analyzed using the following equation:

Marketing Efficiency

Marketing efficiency according to Soekartawi (2001) can be calculated using the following equation:

$$EP = BP/HE \times 100\%$$

Where:

EP = Marketing Efficiency (%)

BP = Marketing Cost (Rp)

HE = Retail Price (Rp)

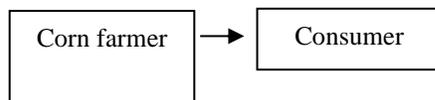
The rules for making decisions about marketing efficiency are

- EP of 0-50% then the marketing channel is efficient
- $EP > 50\%$ then the marketing channel is less efficient

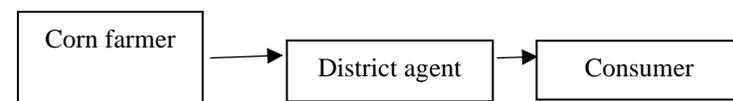
3. RESULTS AND ANALYSIS

The result of the studies showed that the marketing chain or marketing channels are the people, organizations, and activities needed to transfer ownership of goods from the point of production to the point of consumption. It is the way for the product to reach the end user, the consumer; and also known as distribution channel. Marketing channels are also a useful tool for management, and are essential for creating an effective and well-planned marketing strategy. Based on the results of the study found three corn marketing chains in Lengkiti District, OKU Regency, namely:

Channel I:



Channel II :



Channel III :

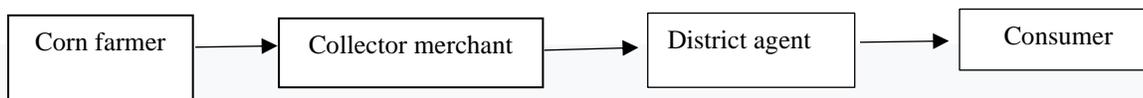


Figure 1. Corn Trading Chain in Lengkiti District, OKU Regency (2022)

Marketing Channel I in Lengkiti District is the marketing channel with the smallest sales volume from producers. This marketing channel does not use any marketing agency, and therefore is the channel that has the shortest chain. Where farmers directly sell corn to consumers in the Lengkiti sub-district. In this marketing channel, the selling price of corn from producers to consumers is Rp. 5,000/kg. This first marketing channel targets consumers who are around the producer's cultivation location, namely consumers who at any time want to buy corn without having to go to the market and also consumers who contact directly the producers.

The pattern of marketing channel II consists of farmers, and traders to consumers, farmers who choose this channel are 51 people (43.96 percent) of the 116 farmer respondents. Farmers as sellers do not incur transportation costs but transportation costs are borne by collectors. In marketing channel II, farmers directly sell to middlemen in Lengkiti District. Sales activities by means of traders visiting farmers at home. The method of payment made from collecting traders to farmers is by cash payment after receiving the corn. Corn transportation only uses two-wheeled vehicles because the distance is not far. The selling price of corn from producers to retailers is Rp. 5,200/kg then from retailers to consumers at a price of 5,800/kg.

Marketing channel III has 4 channels, namely farmers - middlemen (middlemen) - district agents - consumers. Of the 116 samples in this study, as many as 50 farmers or 43.10 percent in channel III. Collector traders who buy farmers' crops directly pick up farmers' land. Sub-district agents can also say big agents buy corn from farmers at a price of Rp. 5,800/Kg this price is adjusted to the quality of the farmers' corn harvest. There are 3 sub-district agents in Lengkiti sub-district. Farmers sell corn to middlemen (middlemen) around 21 villages in Lengkiti District. To market corn production, collectors usually take them directly to sub-district agents or large agents. In this type of marketing channel III, the purchase price and the selling price are determined by each marketing agency.

Collecting traders sell their corn to sub-district agents selling outside the area in OKU Regency and to markets. The selling price of corn from producers to collectors ranges from Rp. 5,000 to 5,200/kg and the selling price of collectors to sub-district agents is Rp. 5,800/kg and the selling price to sub-district agents to consumers is Rp. 6,000/kg.

Some of the things that cause farmers to sell their products to middlemen in the villages are farmers borrowing capital to do corn farming to collectors or middlemen by entering into an agreement with the collectors of corn farming products sold to the provider of capital, namely traders. collectors or middlemen, the production of corn farming is small so farmers have to sell it to agents, because if farmers sell them to sub-district agents, farmers will incur additional costs for transportation, because collector traders will not come to pick up farmers' homes if the corn production is low, then social factors also influence farmers in selling their production to small agents, usually because farmers next door to the agent still have a relative relationship with the agent and so on. The last is distance, the distance between the location of the farmer and the sub-district agent is quite far. Based on the research on costs in the marketing chain level of the corn trade system in Lengkiti District, it can be seen in Table 1 :

Table 1. Average trading costs in each marketing chain for maize in Lengkiti District, OKU Regency.

| No | Description | Channel I (Rp/Kg) | Channel II (Rp/Kg) | Channel III |
|----|-------------------------------|----------------------|-----------------------|-------------|
| 1 | Corn farmer Price | 5.000 | 5.000 | 5.000 |
| 2 | Collector merchant | | | |
| | Buying price | - | 5.000 | 5.000 |
| | Transportation cost | - | 200.000 | 150.000 |
| | Corn drying cost | - | - | - |
| | Labor cost | - | 100.000 | - |
| | Loading and unloading cost | - | 100.000 | 150.000 |
| | Selling price | - | 5.800 | 5.800 |
| | Marketing margin | - | 8.00 | 8.00 |
| 3 | District agent | | | |
| | Buying price | - | - | 5.800 |
| | Transportation cost | - | - | 200.000 |
| | Corn drying cost | - | - | - |



| | | | | |
|---|----------------------------|-------|-----------|-----------|
| | Labor cost | - | - | - |
| | Loading and unloading cost | - | - | 150.000 |
| | Selling price | - | - | 6.500 |
| | Marketing margin | - | - | 9.00 |
| 4 | Consumer | | | |
| | Transportation cost | | | - |
| | Consumer buying price | 5.200 | 5.800 | 6.500 |
| | Amount of marketing cost | - | 1.000.000 | 1.270.000 |
| | Marketing margin | - | 8.00 | 1.500 |
| | Farmer Share | 1% | 1,1% | 1,3% |

Source: Primary Data (2022)

The distribution of corn belonging to farmer groups in Lengkiti District involves several marketing institutions to reach the final consumer, the marketing institutions in question start from farmers, traders, sub-district agents and consumers. Based on the results of the study in Table 1 above, it shows that the costs incurred in each marketing chain vary depending on the distance between farmers and consumers and the many institutions or stakeholders involved.

Marketing channel costs I, marketing in this chain has no marketing costs. Marketing in this chain is fortunately not big, but the advantage of this marketing channel is that consumers take corn production directly to the field, even for loading and unloading costs, collectors bear their own costs. Usually those who buy are farmers who buy to make their own animal feed. Marketing channel costs II, the total marketing costs incurred by the collecting traders on average are Rp. 1.000.000,-. While the average cost of marketing channel III is Rp. 1,270,000. Based on the research, Channel III chain is higher between the two, this is due to the large number of related institutions. The average cost of marketing channel III is Rp. 1,270,000,-. This happens because the selling price in each institution is different. The selling price at the farmer level is the same, namely Rp. 5.000,- for the collectors in chain II of Rp.5,800,-/kg, while in chain III it is Rp.6,500,-/kg Likewise, the price at the consumer level in chain I is Rp.5,000,-/kg while in chain I II is Rp.5,800,-/kg and chain III is Rp. 6.500,-. The higher selling price will cover greater marketing costs, so that the profits obtained both in each institution and in total become large.

Marketing margin is the price difference at the farmer or producer level and the price at the consumer level. Included in this marketing margin are all costs incurred by marketing agencies starting from the farmer or producer level to collecting traders and retailers in the marketing process. Marketing Margin in Marketing Channel I The difference in the amount of marketing costs that must be incurred by marketing agencies will cause price differences, because each of them tries to gain profit from the marketing process. The selling price, purchase price and marketing costs will show the amount of profit earned by each marketing agency and will affect marketing margins. In the marketing channel I margin of 1%, for the marketing channel II margin of 1.1% and the marketing channel III margin of 1.2%

Table 2. The Value of Corn Trading Efficiency in Lengkiti District, OKU District

| Marketing channel | Amount of cost (Rp) | Cost of marketing channel (Rp) | Efficiency (%) |
|-------------------|---------------------|--------------------------------|----------------|
| I | 0 | 5.200 | 0 |
| II | 1.000.000 | 5.800 | 17,7 |
| III | 1.270.000 | 6.500 | 19,5 |

Source: Primary data (2022)

Based on Table 2 shows that the efficiency value on channels I, II and III shows the value with a decision rule of 0 – 33% which means Efficient.

4. CONCLUSION

Based on the results of research that has been carried out on the corn marketing system in the research area, the following conclusions can be drawn:

1. Marketing channels in the research area consist of three marketing channels, the first marketing channel from farmers to consumers. The second marketing channel is from farmers to collectors and then to consumers. And the third is from farmers-traders-collectors-sub-district agents then to consumers.
2. Marketing costs consist of transportation costs, drying, labor, and loading costs.
3. Marketing efficiency in channel I is $1\% > 33\%$, marketing efficiency in channel II is $1.1 > 33\%$ and in marketing III is $1.2 > 33\%$

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