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Marketing Analysis of Corn (Zea Mays) in Balai Kasih Village Kuala District Langkat Regency

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Abstract
This research aims to 1). Knowing corn marketing channels in the research area. 2). Find out the cost of marketing corn in the research area. 3). Knowing the size of the corn marketing channel margin share in the research area. 4). To determine whether corn marketing in the research area is efficient. The location of this research is Balai Kasih Village, Kuala District, Langkat Regency. This research was carried out from August to September 2023. This type of research is quantitative and was carried out using interviews and questionnaires. The samples used in this research were 23 corn farmers and 3 traders, and the sampling method used was simple random sampling. The analysis methods used are marketing cost analysis, marketing margin and share margin, and marketing channel efficiency. The results of this research are: 1). There is 1 marketing channel pattern of farmer-trader collector-consumer with a total of 3 traders. 2). Marketing costs for collecting traders I are IDR 1,241/Kg, marketing costs for traders II are IDR 1,077/Kg, and marketing costs for traders III are IDR 676/Kg. 3). The share margin of collecting Trader I is 70%, the share margin value of Trader II is 71%, and the share margin of Trader III is 72%. 4). The marketing efficiency value of collecting Traders I is 21%, collecting Traders II is 18% and collecting Traders III has an efficiency value of 11%. All three are smaller than 50%, so they are considered efficient.

Keywords — Efficiency, Marketing Channels, Marketing Margins.

Introduction

The field of agricultural science is very broad. However, in general the scope can be categorized based on production, consumption and marketing activities and other aspects, including government policies and external factors. For example, climate. To increase productivity efforts, the government takes steps to stimulate production. This production stimulation policy is divided into two parts, price policy and non-price policy. The prices of several agricultural commodities often rise or fall irregularly (Hanapi et al., 2021).

As a crop with very large growth potential, corn is an important agricultural product. Corn is the second most important food in Indonesia after rice, but for some Indonesian people it remains the most important ingredient. The demand for corn continues to increase every year as a result of population growth, increasing livestock numbers, and the rapidly growing food sector (Fatmawati & Sirajuddin, 2019).

Corn production in Indonesia is prioritized for human food. However, along with the development of the poultry industry and increasing rice production, the use of corn has gradually shifted slightly to the animal feed industry. Domestic corn consumption is 30% for food, 55% for

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feed, and the rest for other industrial needs such as sedes (Kusbiantoro & Nasution, 2022). Balai Kasih Village is a village in Kuala District, Langkat Regency. The problem currently faced by farmers in Balai Kasih Village, Kuala District is in marketing their products. When selling corn in Balai Kasih Village in Kuala Regency, farmers usually distribute their products through marketing institutions and intermediaries. The objectives of this study are: 1) To determine the corn marketing channels in the research area, 2) To determine the amount of corn marketing costs in the research area, 3) To determine the amount of share margin of corn marketing channels in the research area, and 4) To determine whether corn marketing in the research area is efficient.

Literature Review

In addition to the theories discussed above, a review of the results of previous research was also conducted. Reviewing previous results will help examine what is discussed with various specific approaches and provide an overview of the researcher's position with previous researchers. According to Tobing & Ginting (2021), in their research analysis of corn marketing (zea mays) (case study: Lau Tawar village, Tanah Pinem sub-district, Dairi district) shows that there are three corn marketing channels. In marketing channel I it is known that marketing costs are IDR 504.62/kg, marketing margin IDR 850/kg and farmer margin share is 80%. In channel II, it is known that the marketing costs are IDR 503.69/kg, the marketing margin is IDR 700/kg and the farmer's share margin is 81.5%. In marketing channel III, it is known that the marketing cost is IDR 528.14/kg, the marketing margin is IDR 600/kg and the farmer's share margin is 85.37%. The marketing efficiency of the three corn marketing channels was declared efficient, namely in channel I the efficiency level was 11.74%, channel II was 12.59 and channel III was 12.88%.

According to Kusbiantoro & Nasution (2022), with the research title marketing analysis of hybrid corn (zea mays l) (case study: in Deli Tua village, Namo Rambe subdistrict, Deli Serdang district) it can be concluded that there are two marketing channels in the research area, namely farmer-collector traders. -consumers and farmers-small agents-large agents-consumers. Marketing channel I has a marketing efficiency of 4.46% and marketing channel II has an efficiency of 4.89%, this shows that both marketing channels are efficient.

Corn Plants

According to Hidayah et al. (2020), corn is a seasonal plant. About 80-150 days remain in its life cycle. Corn fibrous roots can reach a depth of 8 meters, with most being at a depth of about 2 meters. Adventitious roots that grow at the base of the mature plant stem are responsible for the stability of the plant. Corn stalks are strong and sturdy, with a diameter of 2-4 cm. Plants are highly influenced by genetics. One of the most striking characteristics used to categorize corn plants is their varying heights. The large size of corn kernels makes corn kernels weigh about 250-300 mg. Corn kernels expand from their original thin and round shape when ripe.

Marketing

Producing, advertising, and trading valuable goods with others is a social and management activity known as marketing, which allows individuals and organizations to get what they want or need. William J. Stanton stated that "marketing is the process by which companies plan, price, advertise, and distribute their products and services to satisfy current and future customer demand". Therefore, marketing is a set of interrelated activities that include strategic planning, product pricing, promotion, distribution, and customer value creation (Aprini, 2019).

Market institutions carry out one or more distribution operations as part of the commodity flow process known as marketing, which includes the transfer of ownership and the selection of place, form, and time. Marketing is a series of activities (services) designed to bring products

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from producers to consumers (Sibuea et al., 2021).

Marketing Channels

According to Arbi et al. (2018), marketing channels are interdependent institutions that contribute to the production of goods and services. Shorter agricultural supply chains result in reduced trade costs, lower trade margins, lower consumer prices, and farmers' willingness to accept higher prices (Sipayung & Girsang, 2019).

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Marketing Cost

Cost is the amount of money spent to produce an item during the manufacturing process. In addition to the monetary value of production facilities such as seeds, fertilizers, pesticides, gasoline, capital interest, and other planting-related costs, there are also other forms of costs. Profit can be achieved by paying a certain price, spending a certain cost, or making a certain sacrifice (Purba, 2020).

Margin

The part of the product cost remaining after production costs are deducted from the selling price is known as the marketing margin, both in competitive markets (many sellers and buyers) and monopoly markets (individual buyers), as well as oligopsonic markets (few buyers) (Suaib et al., 2018). Share margin is a percentage that measures the difference between the purchase price at the consumer level and the selling price at the farmer level (Prasetya et al., 2020).

Marketing Efficiency

Marketing efficiency is a marketing situation that allows farmers to operate with low production costs without reducing consumer satisfaction (Fitryani et al., 2019). For marketing to be successful, two things must happen: first, consumers can obtain goods from producers at the lowest possible cost; and second, everyone who plays a role in making and selling the goods gets a fair share of the money paid by consumers (Nuriati, 2018).

Research Method

Location Determination Method

The determination of the research location was deliberately carried out using a purposive approach, namely in Balai Kasih hamlet, Kuala District, Langkat Regency. Balai Kasih Village is one of the corn producing areas in Langkat Regency.

Sampling Method

The sample selection method used was simple random sampling, where the sample size of 15% of the population (150 people) was selected randomly. As a result, the sample consisted of 23 farmers. The sampling method for marketing channels used a census, namely by selecting the entire population in the area and then making it a sample. There are three collectors in Balai Kasih Village, Kuala District, Langkat Regency.

Data Collection Method

The data used in this study include primary and secondary data. Primary data was collected through interviews with farmers, traders, and consumers, using a questionnaire that had

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been prepared to obtain information directly. Secondary data refers to information obtained from authorized parties to complete the data needed in this study.

Data Analysis Method

The data used in this study include primary and secondary data. Primary data were collected through interviews with farmers, traders, and consumers, using a prepared questionnaire to obtain information directly. Secondary data refers to information obtained from authorized parties to complete the data required in this study.

Data Analysis Method

Quantitative analysis is a systematic approach that uses numerical data as a tool for analysis.

1. Calculating the Percentage of Margin (Share Margin)

$$\mathbf{SM} = \frac{\boldsymbol{PP}}{\boldsymbol{Pk}} \boldsymbol{x}\ \mathbf{100}$$

Description:

Sm = Margin percentage (Share Margin) calculated in percent (%)

Pp = price received by producers and traders

Pk = price paid by end consumers

2. Marketing Margin, calculated using the formula:

$$\mathbf{Mp = Pr - Pf}$$

Description:

Mp = Marketing margin (Rp/kg)

Pr = Price at consumer level (Rp/kg)

Pf = Price at producer level (Rp/kg)

3. Marketing efficiency, can be calculated using the formula:

$$\mathbf{Ep} = \frac{\boldsymbol{TB}}{\boldsymbol{TNB}} \boldsymbol{X}\mathbf{100\%}$$

Description:

Ep = marketing efficiency

TB = total marketing cost (Rp)

TNB = total product value (Kg)

The marketing efficiency criteria are as follows:

a. If the EP value <50%, it means that marketing in the research area is efficient.

b. If the EP value> 50%, it means that marketing in the research area is not yet efficient.

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Results and Discussion

Marketing Channels

Intermediaries and marketing institutions are needed to distribute corn from farmers to consumers, and they play an important role in marketing efforts. The distribution of production from producers to consumers is facilitated by different marketing channels, and each channel has its own marketing institution (Wowiling et al., 2018).

From research conducted in Balai Kasih Village, Kuala District, Langkat Regency, there is 1 marketing channel pattern, namely:

Figure 1. Balai Kasih Village Marketing Channel

This channel is included in the type of one-level marketing channel or there is only 1 intermediary in the process, the collector trader becomes the intermediary in this marketing process. There are three collector traders in Balai Kasih Village, Kuala District.

Factory

Traders sell their corn to a factory in Deli Serdang Regency, North Sumatra, namely PT. Charoen Pokphand Indonesia, Tbk. PT Charoen Pokphand covers various sectors, from broiler chicken farms to animal feed and processed foods. PT Charoen Pokpan has business divisions from upstream to downstream, including Prima Freshmart, Kios Unggas, and Prima Meat Shop.

Collector Trader I

In this sales channel, collectors buy corn directly from farmers and sell it to the factory. Farmers sell corn to the first collector trader for IDR 4,000 / kg and sell it to the factory for IDR 5,750 / kg. A total of 13 sample farmers sell their corn directly to this first collector trader. Collector trader I has the largest storage capacity among other traders with a daily purchase volume of 2,800 kg.

Table 1. Marketing Costs and Marketing Margin Share of Collector I Traders

No	Description	Marketing Margin	Purchase Price (Rp/Kg)	Selling Price (Rp/Kg)	Marketing Cost (Rp/Kg)	Profit (Rp/Kg)	Share Margin (%)
1	Farmer			4.000			70%
2	Trader Collector						
	- Purchase Price		4.000				69,5
	- Marketing Cost						
	a. Labor				714		12,4
	b. Transportation				357		6,5
	c. Sacks				20		0,3
	d. Drying				150		2,6
	Total Marketing Cost				1.241		21,5
3	Selling Price			5.750			
4	Marketing Margin	1.750					
5	Sales Profit					509	8,8

Source: Processed Primary Data

When selling corn, traders incur several costs: labor costs of IDR 714/kg, transportation costs of IDR 357/kg, sack costs of IDR 20/kg, and drying costs of IDR 150/kg. So that the total

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or overall marketing costs are IDR 1,241/kg. The profit obtained is IDR 509/kg. The marketing margin obtained from the data above is IDR 1,750/kg and the share margin value is 70%.

Collector Trader II

In collector trader II, there are 5 sample farmers who sell their corn. With the price of corn at the trader level of IDR 4,100/kg, and traders sell to the factory at a price of IDR 5,750/kg. With a daily purchase volume of 700 kg of corn.

Table 2. Marketing Costs and Marketing Share Margin of Collector Trader II

No	Description	Marketing Margin	Purchase Price (Rp/Kg)	Selling Price (Rp/Kg)	Marketing Cost (Rp/Kg)	Profit (Rp/Kg)	Share Margin (%)
1	Farmer			4.100			71%
2	Trader Collector						
	- Purchase Price		4.100				71,3
	- Marketing Cost						
	a. Labor				343		5,9
	b. Transportation				714		12,4
	c. Sacks				20		0,3
	d. Drying				1.077		18,7
	Total Marketing Cost			5.750			
3	Selling Price	1.650					
4	Marketing Margin					573	32,9
5	Sales Profit			4.100			71%

Source: Processed Primary Data

The total marketing cost is IDR 1,077/kg, including labor costs of IDR 343/kg, transportation costs of IDR 714/kg, and sack costs of IDR 20/kg. The margin obtained is IDR 1,650/kg with a marketing profit of IDR 573/kg. The share margin value formed is 71%.

Collector Trader III

Collector trader III buys corn from farmers for IDR 4,150/kg. The selling price of traders to the factory is IDR 5,750/kg. There are 5 sample farmers who sell their corn to collector trader III. The production and storage capacity of collector trader III is also small with a corn purchase volume of 700 kg per day.

Table 3. Marketing Costs and Marketing Share Margin of Collector Trader III

No	Description	Marketing Margin	Purchase Price (Rp/Kg)	Selling Price (Rp/Kg)	Marketing Cost (Rp/Kg)	Profit (Rp/Kg)	Share Margin (%)
1	Farmer			4.150			72%
2	Trader Collector						
	- Purchase Price		4.150				72,1
	- Marketing Cost						
	a. Labor				228		3,9
	b. Transportation				428		7,4
	c. Sacks				20		0,3
	d. Drying				676		11,7
	Total Marketing Cost			5.750			
3	Selling Price	1.600					
4	Marketing Margin					924	16,06
5	Sales Profit			4.150			72%

Source: Processed Primary Data

The marketing costs in this channel are labor costs of IDR 228/Kg, transportation costs

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of IDR 428/Kg, and sack costs of IDR 20/Kg, so that the total marketing cost is IDR 676/Kg. The profit obtained by traders is IDR 924/Kg with a marketing margin of IDR 1,600/Kg and a share margin value of 72%.

According to Tobing & Ginting (2021), the share margin from farmers to distributors to consumers is 100%, which is above 50%. The marketing channel is proven to be efficient as seen from the share margin.

Marketing Efficiency

See the table below to see the level of marketing efficiency in this study:

Table 4. Level of Efficiency of Corn Marketing Channels

Marketing Channel Efficiency		
Trader I	**Trader II**	**Trader III**
$\left(\frac{1.241}{5.750}\right)$ x100%	$\left(\frac{1.077}{5.750}\right)$ x100%	$\left(\frac{676}{5.750}\right)$ x100%
0,21 x 100%	0,18 x 100%	0,11 x 100%
21%	18%	11%

Source: Processed Primary Data

The table above shows that the marketing cost in marketing channel I is IDR 1,241/Kg, the farmer's selling price or product value is IDR 4,000/Kg which results in an efficiency of 21% <50% meaning that this marketing channel is efficient. Marketing channel II is said to be efficient because it has an efficiency value of 18% <50% with a total marketing cost of IDR 1,077/Kg, and a product value of IDR 4,100/Kg. Marketing channel III has a total/overall marketing cost of IDR 676/Kg and a total product value of IDR 4,150/Kg resulting in an efficiency value of 11% <50% which means that this marketing channel is efficient.

Conclusion

Based on the research results, the following conclusions can be drawn:

- The research results show that there is only one marketing channel in Balai Kasih Village, Kuala District, Langkat Regency, namely marketing channel I which consists of farmers - collectors - factories as many as 3 collectors.
- Marketing costs for trader I consist of labor costs, transportation, sacks and drying with a total cost of IDR 1,241 / Kg. The marketing costs of the other two traders consist of labor costs, transportation costs, and sack costs with a total / overall cost of trader II of IDR 1,077 / Kg and the total cost of trader III is IDR 676 / Kg.
- The share margin obtained by collector I is 70%. For collector II, the share margin value is 71% and collector III has a share margin value of 72%.
- The marketing efficiency value of collector I is 21%, collector II is 18% and collector III has an efficiency value of 11%. All three are less than 50% so they are said to be efficient.

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