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AN ANALYSIS OF MARKETING EFFICIENCY OF BEEF CATTLE BREEDERS PERCUT SEI TUAN DISTRICT, DELI SERDANG REGENCY, NORTH SUMATERA

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ABSTRACT

The livestock business is a business consisting of fattening and breeding. Cows are one of the food producers that have a lot of value and nutrition. The high economic value is in line with the increase in population, and the need for food consumption in Indonesia continues to increase every year. Therefore, we must be able to cope with the increasing demand for meat. One of these needs is raising cattle or animal feed and understanding the livestock supply chain as seen from the decline in livestock and feed prices in the market. Knowledge of supply chain flow and beef cattle marketing efficiency is an alternative solution to ongoing problems. The research location is in Percut Sei Tuan District, Deli Serdang Regency, North Sumatra, considering that Percut Sei Tuan District is one of the sub-districts that runs a beef cattle business. This study aims to see how the efficiency of beef cattle marketing. The method used is measuring marketing efficiency and looking at the farmer's share in the beef cattle supply chain. From the study results, it was found that the marketing efficiency analysis of each of the beef cattle supply chain actors in this study has reached a high level of efficiency starting from suppliers, farmer groups and retailers.

Keywords: *Beef Cattle, Marketing Efficiency, Farmer's Share.*

INTRODUCTION

One of the most pivotal opportunities to develop as a business in the future is Livestock. Animal products needed by the community are increasing every year. Animals as providers of protein, energy, vitamins, and minerals are increasing, and public awareness of nutritional needs to improve quality of life increases (Syukur, 2017).

Cattle farming in Indonesia is generally in deplorable condition. This can be proven by looking at beef production in Indonesia as much as 78% of its contribution comes from smallholder farms. The difference comes from imports, then approximately five percent is beef, and 17% is beef. The increase in the number of livestock populations, especially beef cattle, is still not balanced compared to the population growth rate in Indonesia. (Malik, 2019).

The livestock business is a business consisting of fattening and breeding. Cows are one of the food producers that have a lot of value and nutrition. The high economic value is in line with the increase in population, and the need for food consumption in Indonesia continues to increase every year. Therefore, we must be able to cope with the increasing demand for meat. One of these needs is raising cattle or animal feed and understanding the livestock supply chain as seen from the decline in livestock and feed prices on the market (Firmansyah, 2019).

Cows are the most essential animal from other animals kept by humans to meet the needs of meat for food, milking, labor and other human needs. Cows produce 50 percent of the demand for meat, 95 percent of the demand for milk, and cowhide produces 85 percent of the demand for shoes. Cows are one of the genera of Bovidae. As animals, it is not known how cows know when to start breeding because the development of each region or country is different (Susanti, 2014).

The supply chain is a network for various types of institutions or partners who have the same goal of ensuring good sales and distribution of assets. Considering that the supply chain is on time and in location, costs can also be minimized. The whole process, from raw materials produced or operated to the final product/product downstream (Tyagi, 2017).
Supply chain commodities are closely related to prices. Therefore, analysis is needed to identify critical indicators in price making. Price is a major issue with business and industry structures. Price is the most crucial factor in calculating inflation, including inflation associated with price increases (Setiaji, 2017).

A marketing channel, also known as a distribution channel, is a group of organizations that rely on each other to help create products or services that end consumers can use or consume. Companies can design their distribution channels so that products and services are available to customers with different characteristics. Each marketing intermediary performs a number of tasks that can bring the product and its ownership to the final customer even at the channel level. When producers and end consumers carry out a number of activities, they are involved in the entire supply chain process (Karlina, 2018).

Marketing efficiency is a measure of expenditure that must be spent in marketing activities to encourage profitability obtained from the ratio of expenditure and income. The cognitive trade-off "output and input" can be taken into account in the marketing activities carried out. The higher the output value and input ratio, the more efficient the marketing. (Faika, 2015).

Table 1. Data on Beef Cattle Population in North Sumatra 2014-2018

Year	Population (Item)
2014	646.749
2015	662.234
2016	701.170
2017	712.106
2018	748.133

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Source: Livestock and Animal Health Statistics (2018)

Based on information obtained from Livestock and Animal Health Statistics (2018), it is known that the total population of cattle in North Sumatra in 2018 with a total population of beef cattle was 748,133 heads, and the lowest population of beef cattle was in 2014 with a total population of 646,749 cows. It can be concluded that the number of cattle per year will increase due to the intensity of demand for cattle to ensure rice stability which is supported by a comprehensive chain system based on chain construction. The supply chain is connected.

Research purposes

This research aims to determine the marketing efficiency of beef cattle in Percut Sei Tuan District, Deli Serdang Regency, North Sumatra.

IMPLEMENTATION METHOD

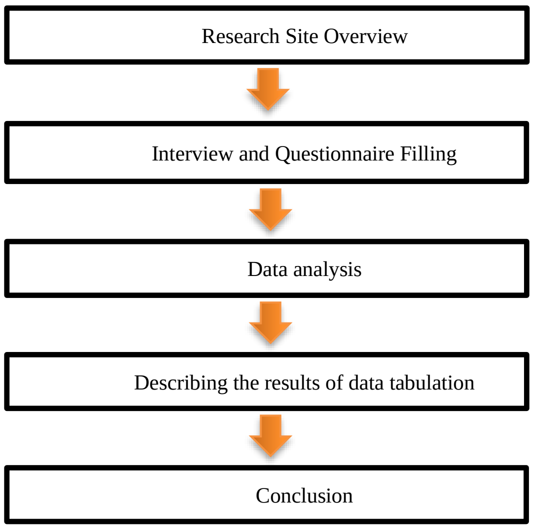

Figure 1. Research Stages

Research Sites

The primary method used in this research is the descriptive method. Descriptive methods only describe and summarize various conditions, situations or various variables. Descriptive research analyzes only up to the descriptive level, namely analyzing and presenting facts systematically to be easier to understand and conclude. Descriptive research aims to systematically and accurately describe a particular population or field (Wirartha, 2006).

This research is a qualitative approach that will then be transformed into a quantitative form to determine the value of marketing efficiency on beef cattle farms.

Furthermore, the data processing results will be analyzed and presented in the form of descriptions, pictures, and tables.

Observed/Measured Variables

The variables used to analyze marketing margins, farmer share and marketing efficiency. This test can be conducted using quantitative analysis.

Sampling Method

The respondent sampling technique employed in this study is the Snowball Sampling technique. Snowball Sampling is a method for identifying, selecting and taking samples in a network or continuous chain of relationships (Nurdiani, 2014).

Data collection technique

Data collection techniques in this study are (1) observation techniques, (2) interview techniques, namely interviews (3) literature study. The population in this study are farmers who are running a beef cattle supply chain business process which will see the value of marketing efficiency from this research.

Data Analysis Method

To analyze the second problem in the study used analysis of marketing margins, farmer share and marketing efficiency. This test can be done using quantitative analysis. Marketing margin can be interpreted as an analysis of the price difference between one marketing agency and the previous marketing agency. A farmer share can be defined as the percentage between the price at the farm level and the consumer level. The greater the percentage, the more efficient the marketing is and vice versa.

So if the value of efficient marketing <50% means that marketing is efficient, but if the value of efficient> 50% means that marketing is not efficient, and if the value of efficient marketing = 50%, then the marketing is efficient (Soekartawi, 2002).

$$\text{Efficiency} = \frac{Marketing\ Cost}{Final\ Product\ Value}\ X\ 100$$

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RESULTS AND DISCUSSION

Marketing Efficiency

Table 2. Beef Cattle Marketing Margin at Each Level

No	Institution	Cost and Price (Rp/head)	Marketing Margin (Rp)	Efficiency (%)
1	Supplier			
	Purchase price	5.000.000		
	Cost	1.275.000	4.000.000	14,2
	Selling price	9.000.000		
	Profit	2.725.000		
2	Farmers			
	Purchase price	9.000.000		
	Cost	1.900.000	4.500.000	14,1
	Selling price	13.500.000		
	Profit	2.600.000		
3	Marketer Merchant			
	Purchase price	13.500.000		
	Cost	500.000	1.000.000	31,7
	Selling price	14.500.000		
	Profit	500.000		
	Total	**84.825.000**	**14.500.000**	
	Average	**7.068.750**	**4.833.333**	**60**

Source: Primary Data Processed (2021)

To calculate marketing efficiency, we have to compare the marketing costs with the selling price to get the efficiency value in each of the marketing agencies involved. The following is an explanation that has been obtained from the results of the tabulation of research data.

Dewi's research, 2021, explained that the length of the clove marketing channel would affect the share received by farmers. The longer the clove marketing channel, the smaller the share received by farmers, and vice versa. The shorter the clove marketing channel, the larger the share received by farmers.

The value of a farmer's share is inversely proportional to the marketing margin. If the marketing margin is higher, then there is an indication of an inefficient marketing system. The value of a farmer's share is on the contrary. If the farmer's share value is higher, the more efficient a marketing system (Naufal & Nugroho, 2018).

1. **Supplier**

$$Efficiency = \frac{Marketing\ Fee}{Selling\ price}\ x\ 100\ \%$$

$$Efficiency = \frac{Rp\ 1.275.000}{Rp\ 9.000.000}\ x\ 100\ \%$$
$$= \mathbf{14,2}\ \%$$

2. **Farmer's Group**

$$Efficiency = \frac{Marketing\ Fee}{Selling\ price}\ x\ 100\ \%$$
$$Efficiency = \frac{Rp\ 1.900.000}{Rp\ 13.500.000}\ x\ 100\ \%$$
$$= \mathbf{14,1}\ \%$$

3. **Trader Marketer**

$$Efficiency = \frac{Marketing\ Fee}{Selling\ price}\ x\ 100\ \%$$
$$Efficiency = \frac{Rp\ 500.000}{Rp\ 14.500.000}\ x\ 100\ \%$$
$$= \mathbf{31,7}\ \%$$

Based on the marketing margin table and the calculation of marketing efficiency, we can see that the marketing margin is 14.2% at the supplier level. At the farmer group level, the marketing margin is 14.1%, and at the marketer level, the marketing margin is 31.7%. This means that in every marketing efficiency cost calculation carried out in the study, Enggal Mukti has a good marketing efficiency value which is stated from the results of the data tabulation.

Table 3. Marketing Costs of Each Supply Chain Actor

No	Institution	Cost			Total Marketing Cost (Rp)
		Treatment (Rp/head)	Transportation (Rp/head)	Risk Coverage (Rp/head)	
1	Supplier	675.000	250.000	350.000	1.275.000
2	Enggal Mukti Farmers Group	1.000.000	400.000	500.000	1.900.000
3	Marketer Merchant	100.000	100.000	300.000	500.000
	Total	**1.775.000**	**750.000**	**1.150.000**	**3.675.000**
	Average	**591.666**	**250.000**	**383.333**	**1.225.000**

Source: Processed Data, 2021.

Supplier

Suppliers are institutions that distribute products in the form of cow breeds. The supplier determines the selling price of cattle breeds to the Enggal Mukti farmer group at Rp. 9,000,000 with a grading fee of Rp. 675,000 / head, transportation costs of Rp. 250,000, and risk insurance costs of Rp. 350,000 / head. Post-harvest treatment is carried out in the form of handling in the grading, transportation, and risk management sections.

Based on the table above, it can be concluded that the marketing agency at the supplier level has shown efficient marketing. When viewed from marketing efficiency, the efficiency value at the supplier level is 14.2%, which means that it is efficient because the efficiency value is <50%. This indicator shows that the marketing costs are low. Then when viewed from the level of farmer share, the following results will be obtained:

$$Farmer\ Share = \frac{Farmer\ Level\ Prices}{Final\ Product\ Price}\ x\ 100\ \%$$

$$Farmer\ Share = \frac{Rp\ 9.000.000}{Rp\ 14.500.000}\ x\ 100\ \%$$

$$Farmer\ Share = \mathbf{62}\ \%$$

From the above calculation, it can be concluded that farmer share has shown an efficient level, where the higher the farmer share percentage, the more efficient marketing activities.

Enggal Mukti Farmers Group

In this study, the sample of collectors was 15 people. Cows from farmer groups are sold to collectors with a maintenance fee of Rp. 1,000,000/head, transportation costs of Rp. 400,000/head, and a risk-taking fee of Rp. 500,000/head. The price of beef cattle is Rp. 13,500,000 / head.

Based on the table above, it can be concluded that the marketing agency at the level of the Enggal Mukti farmer group has demonstrated an efficient marketing. When viewed from the marketing efficiency, the efficiency value at the level of the Enggal Mukti farmer group is 14.1%, which means that it is efficient because the efficiency value is <50%, where this indicator shows that the marketing costs are low. With this efficiency value, it can be concluded that the enggal mukti chain group has collaborated and integrated with suppliers and other chains involved due to the formation of fair prices and efficient marketing cost structures so that the profit-sharing in each marketing agency is evenly distributed.

Marketer Merchant

At the level of marketer traders, cattle that have been purchased from farmer groups will be fattened again according to consumer demand. The fees for the grading process or cow care are IDR 100,000 / head, transportation costs are IDR 100,000 / head, and risk insurance costs are IDR 300,000 with a selling price of IDR 14,500,000.

Based on the table above, it can be concluded that marketing institutions at the level of marketers have shown efficient marketing. When viewed from marketing efficiency, the value of efficiency at the level of marketers is 31.7%, which means that it is efficient because the efficiency value is <50%, where this indicator shows that the marketing costs are low. Marketing costs incurred by the three marketing agencies amounted to Rp. 3,675,000 with an average of Rp. 1,225,000. The marketing costs needed by the three marketing agencies include maintenance costs with a total of Rp. 1,775,000 with an average of Rp. 591,666, transportation costs with a total of Rp. 750,000 with an average of Rp. 250,000, and risk coverage costs with a total of Rp. 1,150,000 with an average of Rp. -an average of IDR 383,333.

CONCLUSION

Based on the calculation of the value of marketing efficiency that has been obtained, each of the beef cattle supply chain actors in this study has achieved a high level of efficiency.

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