



Marketing Analysis of Buffalo at the Animal Market in Suka Village Karo Regency

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Abstract. Buffalo is one type of ruminant livestock that has quite a lot of potential. The animal market is a place for transacting buying and selling animals, which includes cows, buffaloes, goats and sheep. Animal markets usually operate only a few days a week. The Animal Market in Suka Village, Tigapanah District, Karo Regency is an animal market that operates every Tuesday from 09.00 - 17.00 WIB. Livestock sold in this animal market are cows and buffalo. Producers and consumers conduct transactions directly. This animal market is one of the potential areas of Karo Regency in the field of animal husbandry and is very suitable for developing buffalo marketing. This study aims to identify the characteristics of buffalo marketing institutions, market behavior, pricing processes, marketing channels, the role of the government in the animal market, analysis of *margins* marketing *farmer share*, and to analyze the marketing efficiency of buffalo in the animal market of Suka Village, Karo Regency. This research was conducted in October 2019-November 2019. The method used in data collection was descriptive analysis based on surveys and observations made, while the sample of farmers and other marketing institutions was *snowball sampling*. Data was collected by using interview techniques using questionnaires. The results of this study are that the marketing institutions involved include breeders and traders who are all male, whose age is above productive < 51. There are two marketing channels, namely the first channel: farmers - consumers and the second channel: breeders - collectors - consumers. Marketing functions carried out by marketing institutions are exchange, physical and facility functions. Market behavior is that there is no dishonesty in pricing, marketing costs are not uniform and there is no government intervention. The market performance is that there is no technological progress, there is no improvement in product quality and service maximization. Data analysis includes marketing costs, marketing margins, farmer share of costs from each marketing channel. The results of this study indicate that there are two marketing channels. Margin is obtained by a marketing channel that has one marketing agency, thus this marketing channel has the *farmer's share*. So it can be concluded that the first marketing channel is the most efficient channel because it has the smallest cost and big profit.

Keywords: buffalo, *farmer's share*, karo, marketing efficiency, marketing channel

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1. Introduction

Buffaloes are native to hot and humid areas, especially in the northern tropics. Buffaloes really like water. Fossil remains of buffalo which are still preserved in India (Valley of Hindus) indicate that buffalo has existed since the Pliocene era. The domesticated mud buffalo appears to have originated in mainland China. Buffalo belongs to the family Bovidae and historical records have been bred in India, Malaysia and Egypt. This livestock has three functions: dairy, meat and

working cattle. His outstanding ability is to be able to take advantage of the roughest plants and turn them into livestock products [1].

Compared to cows, buffaloes have a digestive system that is more efficient at digesting low-quality feed. In dry areas where cows are in poor condition (thin), buffalo's body condition is still quite good [2]. The advantages of buffalo are the digestibility of crude fiber which is 62.7% greater than that of cattle which is only 51.1%. Buffalo meat is relatively dark in color and the fibers are relatively hard and coarse. The fat is white and if you touch it it will stick to the finger [3].

The results of the 2013 census of the population of Karo Regency amounted to 350,960 people. In mid-2015, according to the projected population of 389,591 people who inhabit an area of 2,127.25 km². The population density is 180 people/km². Based on the results of SUSENAS, the total workforce in Karo Regency reached 228,207 people. With a labor force participation rate of 82.25% and a level of unemployment is 2.23% [4].

The animal market is a place for transacting buying and selling animals, which includes cows, buffaloes, goats and sheep. Animal markets usually operate only a few days a week. The Animal Market in Suka Village, Tigapanah District, Karo Regency is an animal market that operates every Tuesday from 09.00 - 17.00 WIB. Livestock sold in this animal market are cows and buffalo. Producers and consumers conduct transactions directly. This animal market is one of the potential areas of Karo Regency in the field of animal husbandry and is very suitable for developing buffalo marketing. From the explanation above, the authors are interested in conducting research on "Marketing Analysis of Buffalo Livestock at the Animal Market in Suka Village, Karo Regency".

2. Materials and Methods

This research was conducted at the animal market in Suka Village, Tigapanah District, Karo Regency, North Sumatra Province. This research was conducted in October - November 2019. The method used in this study is a survey method with respondents who are marketing buffaloes, namely all traders and breeders. Survey is a primary data collection method by giving questions to individual respondents in the form of a questionnaire [5].

2.1. Methods of Determining Research

Areas The research area for the study of marketing for buffalo is Karo Regency, where this area is one of the marketing places for buffalo in North Sumatra. The research location was determined *purposively* (deliberately) at the Suka Village animal market in Karo Regency. The reason for choosing the Suka Village animal market as the research location is because the Suka Village animal market sells commodities to be studied and is a large animal market in Karo Regency.

2.2. Population and Sample

The population in this study were all marketing institutions involved in marketing buffalo in the animal market of Suka Village, Karo Regency such as buffalo retailers at the animal market of Suka Village, Karo Regency, wholesalers and breeders/producers. Meanwhile, breeders/producers and other marketing institutions such as agents can be determined by *snowball sampling* by following the marketing flow based on information obtained from previous buffalo cattle traders. Snowball sampling is a sampling technique with a small initial amount, then the sample becomes larger to serve as a complete data source and so on to get more samples [6].

2.3. Data Collection Methods

Primary and secondary data were collected at the time of the study. Primary data were collected using direct observation techniques and interviews with respondents using questionnaires or questionnaires. Secondary data is collected through various literatures, books or journals that can be used as reference materials to support primary data during the research.

2.4. Methods of Data Analysis The data

obtained in this study were processed qualitatively and quantitatively, and presented in the form of descriptions and tabulations of numbers. Data processing is done by descriptive method.

Qualitative analysis is used to determine the characteristics of marketing institutions and marketing channels for buffaloes.

1. Analysis of Marketing

Behavior *Market* is analyzed with 5 indicators, namely pricing practices must be possible, marketing costs must be uniform, pricing must be free from conspiracy, dishonest or illicit trading practices, government intervention in the form of price policy must be able to improve product quality and increase consumer decisions [7].

2. Analysis of Market Structure and Market Performance

Analysis of market structure can be identified by the large number of sellers and buyers, barriers to entry and exit from the market, easy access to market information, and types of products. This market structure will determine the market faced by market participants, namely producers and other marketing institutions [8]. Market *Performance* is analyzed with 4 indicators, namely there must be technological progress, an orientation to the development of marketing institutions, an increase in the efficiency of resource use, an improvement in product quality and maximization of marketing services at the lowest possible cost.

analysis *margin* Marketing

According to Soekartawi (1995), to find *margin* can be used the formula:

$$MP = Pr - Pf$$

Description:

MP : *Margin* Marketing (Rp/Kg)

Pr : Price at consumer level (Rp/Kg)

Pf : Price at farmer level (Rp/ Kg)

2. Analysis of *Farmer's Share* received by producers

[7] to find *Share* received by producers can be used the formula:

$$F = \frac{M}{Pr} \times 100 \%$$

Description:

F : *Farmer`s Share* (%)

Pr : Purchase price of final consumers (Rp/head)

M : Producer Price (Rp/head)

4. Marketing Efficiency

$$\text{Marketing Efficiency} = \frac{\text{Total Marketing Cost}}{\text{Total Product Price}} \times 100\%$$

[9] that the marketing system is said to be efficient if efficiency is < 1 . The benchmark used to measure marketing efficiency is to look at the comparison *share* of each marketing agency involved in the marketing process compared to the marketing costs of each marketing agency. involved with the following criteria:

a. Marketing Margin

Marketing is said to be efficient if *margin* farmer is greater than *margin* received by the marketing agency as a whole and vice versa.

b. Based on *profit* cost share and , share

marketing is said to be efficient if *share* $>$ from *share* and vice versa.

c. Based on *farmer`s share*

It is said to be efficient if *farmer's share* > 60 %. The value of *farmer's share* has a negative relationship with *margin*, meaning that the higher *margin* marketing *farmer's share*.

2.5. Definitions and Operational Limitations

To avoid mistakes and misunderstandings in interpreting the research, operational definitions and limitations are made as follows:

2.6. Definition

1. Buffaloes are ruminant animals other than cattle that can be used as a source of meat.
2. Marketing is an economic activity whose function is to convey goods from producers to consumers through intermediaries or marketing agencies.
3. Animal market is a place for transacting the sale and purchase of animals, which includes buffalo, cows, goats and sheep.
4. Producer / breeder is a person who produces free-range chicken products and participates in the marketing channel of free-range chicken.
5. The final consumer is a person or group who buys free-range chicken from a free-range chicken trader for consumption.
6. Marketing agency is a person or business entity that is involved in the marketing process of buffalo in the animal market of Suka Village, Karo Regency.
7. Marketing channel is the sale of goods and the volume of goods flow in each channel from breeders/producers to consumers.
8. *margin* is the difference between the selling price of buffalo to the next marketing agency and the purchase price from the previous institution.
9. *Farmer* is the percentage of buffalo price received by the farmer by comparing the price of buffalo from the farmer with the purchase price of buffalo to the consumer multiplied by 100%.
10. Marketing efficiency is a measure where the distribution between the costs incurred to market each unit of product with the price of the product being marketed is expressed in percent.
11. Producer/breeder is a person who produces buffalo livestock products and is involved in marketing channels for buffalo.
12. Trader is a marketing agency that buys buffalo cattle from breeders and resells them at a certain level of profit.

2.7. Operational Limitations

1. The study was conducted at the animal market in Suka Village, Tigapanah District, Karo Regency.
2. The research was conducted from October - November 2019.
3. The object of the research is the buffalo marketing institutions involved in the marketing of buffalo in the animal market of Suka Village, Tigapanah District, Karo Regency.
4. The scope of this research is the marketing analysis of buffalo in the animal market of Suka Village Karo, Regency.

3. Results and Discussion

3.1. Suka Village Animal Market The Suka Village Animal

Market in Karo Regency is owned by the Karo Regency Government with an area of about 5000 m². This Animal Market is open once a week every Tuesday and starts from 09:00-17:00 WIB. Where the sellers and buyers at the Suka Village Animal Market make direct buying and selling transactions of buffalo.

Table 1. The number of buffalo sold at the Suka village animal market

Time	Livestock Sold			Leftover Livestock			Total
	Male	Female	Virgin	Male	Female	Virgin	
first week	6	2	4	1	3	7	23
second week	6	1	3	4	2	9	25
3rd week	8	2	3	3	1	0	17
4 th week	7	2	6	3	0	2	20
Total							85

Sumber : Primary Data Managed (2019)

There were 85 buffaloes marketed at the Suka Village Animal Market during the study and 50 buffalo sold, this study was conducted for four weeks, where in the first week 23 buffaloes were marketed (7 adult males, 5 broods). and 11 hens). Buffalo sold in the first week 12 tails (6 adult males, 2 females and 4 heifers). There were 25 buffaloes marketed in the second week (10 adult males, 3 broods and 12 heifers). In the second week 10 buffalo were sold (6 adult males, 1 brood and 6 heifers). There were 17 buffaloes marketed in the third week (11 adult males, 3 broods and 3 heifers). In the third week 13 buffaloes were sold (8 adult males, 2 females and 3 heifers). There were 20 buffaloes marketed in the fourth week (10 adult males, 2 broods, and 8 hens). Buffaloes sold in the fourth week of 15 tails (7 adult males, 2 broods and 6 heifers).

3.2 Characteristics of Marketing Institutions

a. Characteristics of Collector Traders The

process of distributing buffalo livestock commodities from producers to consumers will go through several marketing institutions. In this study there were 13 buffalo cattle traders. Each of the buffalo traders from the Suka Village animal market involved has characteristics that affect the marketing activities carried out. The characteristics of buffalo sellers include gender, age, education level and length of trading.

1. Gender Trader Collector

Table 2. Gender

Gender	Number of Collecting Merchants (person)	%
Male	13	100
Female	-	-
Total	13	100

Sumber: Primary Data Managed (2019)

2. Age of Collector Trader

The average age of the seller is 45 years with the youngest trader being 30 years old and the oldest trader being 65 years old. This indicates that the selected seller is still of productive age (30-65 years) and it is still possible to develop the business for a long time.

Table 3. Age of traders who collect buffaloes

Age Group	Number of Collecting Merchants (person)	%
< 35	3	23,08
35-50	6	46,15
> 51	4	30,77
Total	13	100,00

Sumber: Primary Data Managed (2019)

Age has a big influence on buying and selling transactions. The age of the collecting trader will affect his business in the marketing process. In table 4, traders who collect buffaloes at productive age, namely at the age of 35-50 years, are 6 people (46.15%) and traders under 35 years are 3 people (23.08%), meanwhile at the age level greater than 51 years are as many as 4 people (30.77 %). This indicates that most of the traders are of a productive age. The age factor affects work, physical, innovativeness, adoption and is more dynamic because it can be used for the development of a buffalo business, this is in accordance with the opinion [11] which states that a person's age can optimize all things that affect perceptions such as experience, learning process and knowledge. Productive age is the age where a person can optimize all things that affect perception such as experience, learning process and knowledge. This is in accordance with the view [12] which explains that a person's work productivity will increase with age and then decrease again with increasing age. In addition, it is said that an entrepreneur can affect labor productivity, because age is closely related to work capacity and way of thinking that determines the management model applied in the business.

3. Education Level of Collector Traders

Table 4. Merchant education level

Merchant education level	Number of Collecting Merchants (person)	%
SD	1	7,70
SMP	4	30,76
SMA/SLTA	7	53,84
S1	1	7,70
Total	13	100,00

Sumber: Primary Data Managed (2019)

The level of a person's final education will affect his way of thinking, the higher the level of education, the wider his horizons will be. Based on "Table 5", it shows that the level of education in the form of numbers and percentages is 1 person (7.70%) of respondents graduated from elementary school, as many as 4 people (30.76%) of respondents graduated from junior high school, 7 people (53.84%) of respondents graduated from SMA/SLTA, and 1 person (7.70%) of the respondents graduated from S1 tertiary institutions. This shows that most of the sellers have a sufficient level of education (SMA). The level of education determines the agility in the absorption of information in the market. According to [13] education is one of the factors that support the success of small-scale businesses, with the assumption that the higher the level of education, the better the knowledge in managing the business and maintaining business continuity and overcoming the problems faced.

4. Length of Business of Collecting Merchants

Traders who have less than 10 years of business experience are 3 (33.33%) and 6 people (66.67) have 10-20 years of business experience. So this shows that traders have relatively more than 10 years of experience.

Table 5. Length of Business

Length of Business (years)	Number of Collecting Merchants (person)	%
< 10	5	38,46
10-20	8	61,54
Total	13	100,00

Sumber: Primary Data Managed (2019)

Traders who have a business period of more than 10 years show that business experience is very much needed by buffalo marketing actors because they need knowledge and information about marketing buffalo. From the length of this effort, it can be seen that generally every market participant builds a working relationship based on trust and the length of the working relationship that exists between fellow traders. The longer he tries, the easier it will be to gain the trust of other market participants. This is in accordance with the opinion [14] that long or at least experience in the business of trading buffalo cattle is one of the determining factors in the progress or decline of a business activity related to the experience of traders.

b. Characteristics of Breeders

Breeders are buffalo producers who also act as marketing institutions. Breeders play a role in marketing buffalo directly to consumers at the animal market in Suka Village, Karo Regency. There were 17 buffalo farmers in the Suka Village animal market in this study, the breeders in this study came from various regions, namely Kubu Simbelang, Suka, Kandibat, Tiga Arrow, Linggah, Nangbelawan, Lingga Julu, Munte, Dolat Rakyat and several other areas.

1. Gender of Breeder

Table 6. Breeder of Gender

Gender	Number of Breeders (person)	%
Male	17	100
Female	0	0
Total	17	100

Sumber: Primary Data Managed (2019)

Breeders collected as many as 17 people (100%) who were male. This shows that male breeders are superior in terms of physical labor in maintaining buffalo livestock. This is in accordance with research [10] which states that control over resources is felt by one party, namely men only as shown in "Table 6".

2. Breeder Age

Table 7. Breeder Age

Age Group	Number of Breeders (person)	%
< 35	-	-
35-50	7	41,18
> 51	10	58,82
Total	17	100,00

Sumber: Primary Data Managed (2019)

Buffalo breeders totaled 17 people, where the age of buyers of buffalo cattle with the age of 36-50 years were 7 people (41.18%) and at the age level greater than 51 years were 10 people (58.82%). This indicates that most of the farmers are of a productive age (as shown in table 8). The age factor of the breeder affects work, physical, innovation, adoption and is more dynamic because it can be used for the development of a buffalo business, this is in accordance with the opinion [11] which states that a person's age can optimize all things that affect perceptions such as experience, learning process. and knowledge.

3. Breeder Education Level

Table 8. Breeder Education Level

Education Level	Number of Breeders (person)	%
SD	4	23,53
SMP	5	29,41
SMA/SLTA	8	47,06
Total	17	100

Sumber: Primary Data Managed (2019)

Based on Table 9, the level of education in terms of number and percentage are 4 (23.53%) buyers who finished elementary school, 5 (29.41%) buyers graduated from junior high school, 8 people (47.06%) buyers graduated from high school/high school. This shows that most of the buffalo breeders are quite well educated. According to [13] education is one of the factors that support the success of small-scale businesses, with the assumption that the higher the level of education, the better the knowledge in managing the business and maintaining business continuity and overcoming the problems faced. Education is seen as a means to obtain quality human resources because education is considered capable of producing a quality workforce. The final level of education determines success in marketing. The higher a person's education, the greater the skills and knowledge of that person, so that person will be skilled in marketing the buffalo he will sell. [15] explained that the minimum formal education received can estimate the level and type of knowledge that adapts to the needs of the organization concerned. The problem that often arises is that a person's certification does not fully guarantee that he has knowledge that is in accordance with his level of education.

4. Long Time Raising

Table 9. Long Time Raising

Livestock Experience (years)	Number of Breeders (person)	%
< 10	-	-
10-20	9	52,95
> 20	8	47,05
Total	17	100,00

Sumber: Data Primer Diolah (2019)

9 people (52.95%) have experience of 10-20 years and 8 people (47.05%) have experience over 20 years. So this shows that the breeder has relatively more than 10 years of experience. This is in accordance with the opinion [14] that long or at least experience in the business of trading buffalo cattle is one of the determining factors in the progress or decline of a business activity, including in raising buffalo related to livestock. experience of farmers (as shown in table 10). The length of business is an experience that can be taken advantage of so that it can help farmers in their business. This is because experience is used as a guide and adjustment to a problem sometimes faced by farmers in the future. In accordance with the opinion [15] which states that knowledge

about the buffalo business is a determining factor for the success of the business. If a farmer has been in business for a long time, his knowledge in the form of experience continues to increase, and the farmer will understand better when he experiences the advantages and disadvantages of marketing buffalo cattle.

3.3. Marketing Institutions Marketing

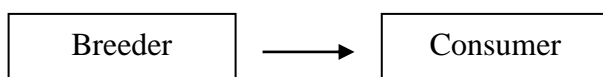
is one of the main activities carried out by breeders and marketing institutions in order to get the maximum profit in marketing a particular commodity or product. Based on the results of research conducted at the Animal Market, Suka Village, Karo Regency, marketing of Buffalo livestock which is marketed has two marketing institutions that play a role in marketing Buffalo livestock, namely breeders and traders. Breeders are producers of buffalo that market or sell buffaloes to consumers and collectors. Farmers play a role in marketing their buffalo directly to consumers who are in the animal market of Suka Village, Karo Regency. The number of farmer respondents in this study were 17 people from various regions, namely Kubu Simbelang, Suka, Kandibat, Tiga Panah, Linggah, Nangbelawan, Siantar, Lingga julu, Munte Dolat Rakyat.

Collector traders are marketing institutions that act to buy buffalo from farmers and sell them to consumers who are in the animal market in Suka Village, Karo Regency. Of the respondents who were found in the animal market, there were 13 people who were involved as traders.

3.4. Marketing Channel

channels are a series of actors who channel all the functions used to channel products and their ownership status from producers to consumers. The process of distributing products from producers to consumers must be carried out even though the distance between the two is far apart, but must consider the general factors that apply so that no losses occur. The marketing channel for beef cattle is a form of organization within the farm and outside the farm consisting of agents, traders, collectors. , wholesalers and butchers [12] the form of marketing channels is more meaningful if there are differences in prices at each level and the functions performed at each level [16]. Based on the results of research on the marketing of Buffalo Livestock at the Animal Market, Suka Village, Karo Regency, there are two marketing channels. This can be seen in the marketing channels, namely:

Marketing Channel I



Based on the above scheme, buffalo breeders directly sell their livestock to consumers, in this case the type of marketing does not use intermediaries. Breeders immediately bring buffalo to the animal market because the price of buffalo in the animal market is normal and buyers are always there and to get the maximum profit possible.

Marketing Channel II



Based on the above scheme, this type of marketing is included as a one-level marketing channel because this channel only uses one intermediary institution, namely the collector. Collector traders buy buffalo from farmers in the vicinity of their homes and some buy from other animal markets which will then be resold at the Suka Village animal market.

3.5. Marketing Function

Function The marketing function is a function performed by each interacting component in the marketing system. The marketing function is needed to facilitate distribution. Demographic and *human capital* related to business success are measured by age, experience, education and network [17]. The marketing function of Buffalo in the Animal Market of Suka Village, Karo Regency can be seen in the table below. The physical function consists of a storage function, a transportation function, and a packaging/processing function. The storage function is needed to store goods as long as they have not been consumed or are waiting to be transported to the marketing area. The transportation function aims to provide goods and services in the consumer's area according to consumer needs according to time, quantity, and

packaging/processing function aims to improve the quality of the goods concerned, both in order to strengthen the durability of goods and increase their value and to meet consumer needs.

The facility function is all actions related to actions that occur between producers and consumers that facilitate exchange and physical functions, facility functions, financing functions, risk-taking functions, and market information functions. The function of standardization and *grading* is a measure or determination of the quality of an item such as color, chemical composition, size of shape, strength and resistance, water content, level of maturity, taste and other criteria. The financing function is the provision of costs for the needs during the marketing process and also the activities of managing these costs. The market information function includes activities to collect market information and interpret market information data.

Table 10. Functions of the buffalo marketing agency in the animal market of Suka Village, Karo Regency.

Marketing Agency	Marketing Function	Treatment
Breeders	Exchange Physical Facility	Sale Transport, storage Financing, risk management, standardization and grading, market information, communication, promotion
Collecting Merchant	Exchange Physical	Sales, purchases transportation, storage,

Facility	processing Financing, risk management, standardization and grading, market information, communication, promotion
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Source: Primary Data Managed (2019)

Based on the table above, it can be seen the marketing function of each marketing agency for Buffalo at the Animal Market, Suka Village, Karo Regency. Activities carried out by marketing agencies are to perform a number of marketing functions. The marketing functions such as the exchange function, physical function and the function of providing facilities. Based on the results of the research conducted, the marketing institutions in the Suka Village Animal Market, Karo Regency do not carry out all existing marketing functions.

Breeders perform an exchange function, namely the sales function in the form of buffalo with an average selling price of Rp. 21,779,411 per head. The physical function performed is the function of transportation and storage. The transportation function carried out by the breeder is the transportation of buffalo from the farmer's residence to the animal market using pick-up cars and trucks. The average cost incurred for transportation costs is Rp. 171,764 per head. The storage function performed by the farmer is that if the livestock is not sold in the animal market, the farmer will bring it back home and rear it for sale next week at the animal market. The function of the facility carried out by the breeder is the financing function. In this case, the farmer carries out all marketing financing such as transportation costs, feed costs in the market, permit fees and user fees, animal health inspection fees and loading and unloading costs.

Collecting traders perform an exchange function, namely the purchase function and the selling function. The average price of buffalo purchased by collector traders from farmers is Rp. 21,270,769 per head and the average selling price of buffalo sold by collector traders in the animal market is Rp. 22,107,692 per head. The physical function performed by collector traders is the transport function and storage function. only traders go to the animal market using pick-up cars and trucks which have an average transportation cost of Rp. 170,000 per head. Storage is done if the buffaloes are not sold in the animal market. Collectors will bring the buffalo back home and raise them again and bring them back next week to the animal market for sale. The function of the facilities carried out by the collecting traders is market information, financing, collection, risk management. Collecting traders provide market information to farmers around their homes, both in terms of the price of buffalo and the demand for buffalo in the animal market. Collector traders carry out financing during the marketing of buffalo such as transportation costs, market feed costs, permit fees and market levies, animal health and inspection fees and loading and unloading costs. The collecting function is carried out by collector traders by collecting buffaloes that are ready to be sold to the animal market from around their residence. Collectors also carry out risk-taking for the livestock they sell to the animal market, both in terms of price and stress levels for the buffalo.

3.6. Market Behavior

Market behavior shows the behavior of marketing institutions in certain market structures, especially the forms of decisions that must be taken in dealing with various market structures. Market behavior includes selling, buying, pricing, and trading strategies. Market patterns and behavior are not constant, they will always change. The criteria used to determine market behavior are that marketing costs must be uniform, pricing must be free from collusion, dishonesty or illicit trade, and government intervention in the form of price policies must be able to improve product quality and improve consumer decisions.

1. Pricing Process

The process of determining the price of buffalo in the animal market of Suka Village, Karo Regency is seen based on the price taker and price maker. The price of buffalo in the animal market is adjusted according to the agreement between the seller and the buyer. Sellers and buyers in determining the price by considering the estimated weight and body posture of buffaloes. The price of buffalo that applies in the animal market of Suka Village, Karo Regency, if you look at its body weight, it will be estimated how much the buffalo's body weight will be calculated per kilogram of RP. 120,000 and when determining the price of body posture, several criteria will be considered from the buffalo and usually when determining the price of body posture, the price of the buffalo will be higher because it has certain criteria that are in demand by consumers.

2. Marketing Cost

Marketing costs are the total costs incurred to market buffalo from producers to consumers at the animal market in Suka Village, Karo Regency. The criterion used to determine market behavior is that marketing costs must be uniform. [18] The difference in marketing locations, traders (collectors/agents, wholesalers, small traders/retailers, etc.) and the effectiveness of the marketing carried out, as well as the types of commodities are the causes of the large marketing costs. Costs incurred by market participants generally include transportation costs, feed costs, license fees and levies, medical examination fees, loading and unloading costs.

Table 11. Cost of Marketing of Buffalo Livestock at the Animal Market in Suka Village, Karo Regency

Marketing channel	Type	Cost Details (Rp)	Total Cost (Rp)
I	Transport	114.118	171.765
	Feed	11.176	
	Permits and levies	10.000	
	Health Checkup	20.000	
	Unloading	16.471	

	Transportation	153.846	
	feed	13.846	
	Permits and levies	10.000	
II	Health Checkup	20.000	
	Unloading and loading	20.000	
			217.692

Sumber : Primary Data Managed (2019)

Table 12 above is data from the results of research that has been carried out that the marketing costs of buffalo in the animal market of Suka Village, Karo Regency on marketing channel I amounted to Rp. 171,765. In the second marketing channel amounting to Rp. 217. 692. From the details of marketing costs above, marketing costs in the Suka Village animal market are not uniform, this is because the distance between market participants is different so that the cost of transportation of livestock from location to animal market is not the same, the feed used is not the same. given to livestock also have different prices and the cost of loading and unloading livestock to transport is also not the same. The uniform costs in marketing buffalo are the permit fee or user fee which is set at Rp. 10,000 and the cost of animal health is Rp. 20,000. The marketing costs of buffalo in the animal market of Suka Village, Karo Regency are not uniform and this does not meet the criteria for marketing efficiency.

3. Government Intervention

The criteria used to determine market behavior, namely government intervention in the form of price policies, must be able to improve product quality and increase consumer decisions. The price of buffalo in the Suka Village animal market, from farmers to consumers, there is no intervention or intervention from the government. The price of buffalo is in accordance with the agreement between the seller and the buyer by using the standard price prevailing in the market. The government does not have the authority or interfere in determining the lowest and highest prices for buffalo which are marketed in the Suka Village animal market. The government only has the authority to issue permits required by market participants. So it can be concluded that there is no government intervention in determining prices to improve buffalo products in the animal market of Suka Village, Karo Regency, this does not meet the criteria for marketing efficiency.

3.7. Market Structure

Market structure is the institutional characteristic of a market that determines the relationship between one seller and another, between buyers and sellers, as well as the relationship between sellers in the market and potential sellers who will enter and leave the market. Based on the marketing agencies involved in marketing buffalo at the Suka Village Animal Market, Karo Regency, there are two marketing institutions involved. The two marketing agencies can be seen in the following table:

Table 12. The number of buffalo marketing agencies involved in the Suka Village Animal Market, Karo Regency.

No.	Marketing Agency	Total (n)	Percentage (100%)
1.	Collecting Merchant	13	43.3
2.	Breeder	17	56,7
Total		30	100,0

Sumber : Primary Data Managed (2019)

In the table above, it is known that farmers are more involved in marketing buffalo in the animal market of Suka Village, Karo Regency which has a percentage of 56.7% compared to collector traders who have a percentage of 43.3%. This is because the number of breeders who come from within the province of North Sumatra makes the animal market affordable to market buffalo to the animal market. The market structure is analyzed with 3 indicators, namely the size of the number of buyers and sellers must be large so as to ensure an adequate intensity of competition in terms of price and product quality, there is freedom to enter and leave the market for marketing institutions, and the number of buyers must be adequate so as to encourage increased efficiency. investment in the marketing of livestock commodities.

1. Size of the Number of Traders and Buyers of Buffalo Livestock

Based on the results of research on the animal market in Suka Village, Karo Regency, it is known that the number of traders and buyers is large. In the Suka Village animal market, there is not only one trader or one buyer, resulting in price and product competition. With so many traders and buyers at the Suka Village animal market, it was decided that the marketing of buffalo in the Suka Village animal market had met the criteria for marketing efficiency.

2. Number of Buyers Must be Sufficient

Based on the results of research on the animal market in Suka Village, Karo Regency, it is known that buyers of buffalo always come every week to the animal market to buy buffaloes. This is supported by the continuity of market activities every week even though there are national holidays. In this case, the demand for buffalo in the Suka Village animal market continues and persists. With an adequate number of buyers, the marketing of buffalo in the animal market of Suka Village, Karo Regency has met the criteria for marketing efficiency.

3. The existence of freedom to enter and exit the market

Based on the results of research on the animal market in Suka Village, Karo Regency, it is known that traders and buyers are free to enter and exit the market. Those who carry out activities at the Suka Village animal market do not need to get permission from any party, either from the government or other institutions. With the freedom to enter and exit the market, the marketing of

buffalo in the animal market of Suka Village, Karo Regency has met the criteria for marketing efficiency.

3.8. Market Performance

Market performance is the result of final decisions taken in relation to the bargaining process from producers to consumers in market competition. The criteria used to determine market performance are that there is technological progress, there is an orientation to the development of marketing institutions, there is an increase in the efficiency of the use of resources, improvement in quality and maximization of marketing services at the lowest possible cost.

1. There is Technological Advancement

The criteria for assessing market performance is technological progress. Marketing of buffalo in the animal market of Suka Village, Karo Regency does not take advantage of technological advances as it is today in the marketing process of buffalo to be marketed. There are no scales in the animal market so that the determination of body weight is carried out by estimation. Marketing of beef cattle is done traditionally, namely by bringing buffalo directly to the animal market and buyers also directly buying buffalo. There is no marketing of buffalo with an online system like most marketing of products that is mostly done by the community. Reducing buffalo from pick-up or truck transportation is also only done manually and assisted by mounds of earth around the animal market. There is no technological progress in marketing beef cattle at the animal market in Suka Village, Karo Regency, so this does not meet the criteria for marketing efficiency.

2. Development Orientation of Marketing Institutions

The criteria used to assess market performance is an orientation to the development of marketing institutions. In marketing buffalo in the animal market, Suka Village, Karo Regency, there is no orientation in the development of buffalo marketing institutions. Marketing agencies involved in marketing buffalo in the animal market can only stand alone without any help or intervention from other parties. For example, in terms of capital, marketing institutions do not receive assistance from banks, business entities or cooperatives. In the field of product quality improvement, marketing institutions are also not assisted by any party. So the orientation of the development of marketing institutions in the marketing of buffalo in the animal market of Suka Village, Karo Regency does not exist at all, so this does not meet the criteria of marketing efficiency.

3. Improved Resource Efficiency

The criteria used to see market performance is an increase in resource efficiency. In the marketing of buffalo at the animal market in Suka Village, Karo Regency, there has been an increase in resource efficiency carried out by marketing institutions. as farmers and traders at the same time. This is done to increase profits and take advantage of resource efficiency to be able to achieve

marketing efficiency. Marketing agencies also bring animal feed from their respective places of residence to minimize spending on marketing costs. With the increase in the efficiency of these resources then meet the criteria of marketing efficiency.

4. Product Quality Improvement and Marketing Services Maximization

The criteria used to assess market performance are improving product quality and maximizing marketing services at the lowest possible cost. The product marketed in this animal market with the title of this research is live buffalo without any processing and product quality improvement. Breeders and traders bring live buffalo directly to the animal market without any sorting process. Marketing of buffalo in the animal market of Suka Village, Karo Regency does not maximize marketing services. This is evidenced by the seller utilizing the loading and unloading services available in the animal market so that marketing costs in terms of loading and unloading cannot be reduced. So it can be concluded that the marketing of buffalo in the animal market Suka Village, Karo Regency, did not experience any improvement in product quality and maximization of marketing services, so this did not meet the criteria for marketing efficiency.

3.9. Marketing Margin

Marketing margin is used as an indicator of marketing efficiency. The amount of marketing margin in various marketing channels can differ depending on the length of the marketing channel and the activities that have been carried out as well as the profit expected by the marketing agency involved in a product marketing.

As for the marketing channels of buffalo in the animal market of Suka Village, Karo Regency, from the results of the study there are 2: Channel I, consumer breeders, this first marketing channel is marketing in which products from the hands of farmers go directly into the hands of consumers. Marketing channel II, namely farmers, traders, consumers, collectors, in this second marketing channel, involves one marketing agency in the animal market, namely collectors.

This is in accordance with the opinion [19] which states that the marketing margin is the difference in the price received by the producing breeder and the price paid by the final consumer. The marketing margin is the difference between the price received by the producer and the price paid by the buffalo consumer in the animal market. The less marketing margin you get, the less profit the farmer will receive. The amount of profits and costs incurred by each marketing agency involved in marketing the buffalo can be known by analysis of marketing margins.

The amount of marketing margin can be calculated by adding up marketing costs with the amount of profit for each marketing agency involved in the marketing channel. This is caused by differences in selling prices, marketing costs incurred and profits from each marketing agency that is channeled by the marketing [20].

Table 13. Buffalo Livestock Marketing Margin at the Animal Market in Suka Village, Karo Regency

Marketing channel	Purchase price (Rp/head)	Selling price (Rp/head)	Marketing Margin (Rp/head)
I	-	21.270.769	-
II	21.270.769	22.107.692	836.923

Sumber : Primary Data Managed (2019)

In “table 14” above from the results of research that has been carried out in the animal market of Suka Village, Karo Regency, the marketing margin of buffalo in marketing channel I is Rp.0. This is due to the fact that farmers directly sell their buffaloes to consumers at the Suka Village animal market in Karo Regency, thereby providing higher profits to farmers. In marketing channel II, the marketing margin is Rp. 836,923. This is due to the existence of a chain of marketing channel institutions involved between breeders, collectors and then to consumers, the second marketing channel is less profitable for farmers, but the profits are obtained continuously because the number of livestock at collector traders is always adequate.

3.10. Farmer's Share

Farmer's share is the share received by farmers from the price paid by the final consumer, which is expressed as a percentage. The bigger the farmer's share, the more efficient marketing is [21]. Farmer's share is also an analytical tool used to measure efficiency in terms of farmers' income. [22] Farmer's share is the share of the price received by farmers against the price paid by the final consumer in a marketing.

Table 14. Farmer's Share Ternak Kerbau di pasar hewan Desa Suka

Marketing channel	Farmer's Share(%)
I	100,0 %
II	96,3 %

Sumber : Primary Data Managed (2019)

A low farmer's share value in a marketing channel cannot necessarily be said to be inefficient. In determining an efficient marketing channel, it also cannot rely solely on the calculation of marketing margins and farmer's share, because it is necessary to calculate the marketing functions that occur, the costs incurred, the marketing agencies involved, as well as the added value created in the marketing channel [23].

In “Table 15”, from the results of the research that has been carried out, it can be seen that the percentage of farmer's share received by farmers in channel I is 100% because farmers directly market their buffalo directly to consumers in the animal market of Suka Village, Karo Regency. There is no difference in prices at the producer level and at the consumer level in channel I so that the price received by farmers is 100%. In marketing channel II, the percentage of Farmer's Share received in marketing channel II is 96.3%. This is caused by differences in prices at the producer

level and prices at the consumer level. The price at the farmer level is Rp. 21,270,769 and the price at the consumer level is Rp. 22,107,692 so that the Farmer's Share in marketing channel II is 96.3%. If viewed from the perspective of the Farmer's Share of the two marketing above, then marketing I will get more benefits than the second marketing channel.

3.11. Buffalo Livestock Marketing Efficiency

Marketing efficiency is the ratio between the total cost incurred and the total value of the product being marketed [24]. Efficient marketing if it is able to convey the results from producers to consumers at low costs and is able to hold a fair distribution of the total price paid by final consumers to all parties who participate in distributing the cattle. The high and low marketing margins and the share received by farmers are indicators of efficiency. marketing. The lower the marketing margin and the greater the share received by farmers, the marketing system is said to be efficient [25].

Table 15. Buffalo marketing efficiency in every marketing channel and marketing agency

Marketing channel	Total Marketing Cost (Rp/Chair)	Total Product Price (Rp/Tail)	Efficiency Value
I	2.920.000	370.250.000	0,007
II	2.830.000	563.920.000	0,005

Sumber : Primary Data Managed (2019)

In table 16 above from the results of research that has been carried out with the efficiency value of channel I which is 0.007, in channel II the efficiency value is 0.005. This is in accordance with formula [9] the marketing system can be said to be efficient if the value of marketing efficiency is < 1 , by looking at the results of the analysis which is in the table above, that the efficiency value of all marketing institutions involved in marketing activities for buffalo at the animal market in Suka Village in Karo Regency is already efficient.

4. Conclusion

1. Marketing institutions involved in marketing buffalo at the Suka Village Animal Market are breeders and traders.
2. There are two kinds of marketing channels for buffalo at the Suka Village Animal Market, Karo Regency, namely, Channel I : Breeders – Consumers and Channel II : Breeders – Traders – Collectors – Consumers
3. The largest marketing margin is obtained in the longest marketing chain, which is found in channel II of Rp. 836,923.
4. The most widely used marketing channel by farmers is in channel II with a farmer's share of 96.3%.

5. Efficiency of marketing channels for buffalo at the Suka Village Animal Market. It can be seen from the marketing efficiency that each channel is efficient with a marketing efficiency value of <1 .

REFERENCES

- [1] Reksodiprojo, S. Pengantar Ilmu Peternakan Tropik. Penerbit BPFE, Yogyakarta. 1984.
- [2] Bamualim, A.M., R.B. Wirdahayati, dan M. Ali. Profil Peternakan Sapi dan Kerbau di Sumatera Barat. Balai Pengkajian Teknologi Pertanian Sumatera Barat, Sukarami. 2006.
- [3] Rukmana, R. Beternak Kerbau Potensi dan Analisis Usaha. Aneka Ilmu, Semarang. 2003.
- [4] Badan Pusat Statistik. 2016. Kabupaten Karo dalam angka. Badan Pusat Statistik Kabupaten Karo. 2016.
- [5] Erlina, Metodologi Penelitian untuk Skripsi dan Tesis Bisnis. Fakultas Ekonomi.USU. Medan. 2011.
- [6] Neuman, W. Lawrence. Social research methods: Qualitative and quantitative approaches. Boston: Allyn and Bacon. 2003.
- [7] Sudiyono, A. Pemasaran Pertanian. Muhammadiyah University Press. Malang. 2002.
- [8] Sudiyono, A. Pemasaran Pertanian. UMM Press. Malang. 2004.
- [9] Downey, W.D. dan S.P. Erickson, Manajemen Agribisnis. Edisi Kedua. Erlangga. Jakarta. (Terjemahan oleh Rochidayat). 1992.
- [10] Sari Al, Purnomo SH, Rahayu ET. Sistem pembagian kerja, akses dan kontrol atas sumber daya ekonomi dalam keluarga peternak rakyat sapi potong di Kabupaten Grobogan. *Jurnal Sains Peternakan*. 2009.
- [11] Mardikanto, T. Penyuluhan Pembangunan Pertanian. Sebelas Maret University Press. Surakarta. 1993.
- [12] Swastha, B. Pengantar Ekonomi Perusahaan Modern. Libarty, Yogyakarta. 1997.
- [13] Riyanti, Benedicta P.D. kewirausahaan dari sudut pandang psikologi kepribadian. Jakarta: Grasindo. 2003.
- [14] Saksono, Administrasi Kepegawaian, Kanasius, Jakarta. 1988
- [15] Fuad, Sugiarto, Nurlela, H. Pengantar Bisnis. Jakarta: Gramedia. 272 hal. 2001.
- [16] Napitupulu, B. Tataniaga Pemasaran, Penerbit Airlangga, Jakarta. 2006.
- [17] Li X. Entrepreneurial competencies as an entrepreneurial distinctive: An examination of the competency approach in defining entrepreneurs [tesis]. Singapore (SG): Singapore Management University. 2009.
- [18] Rahim. Abd. Dan Hastuti. DRW. Ekonomi Pertanian. Jakarta : Penebar Swadaya. 2007.
- [19] Nainggolan, J. D. Efisiensi Pemasaran Telur Ayam Ras di Kota Medan. Skripsi. Universitas Sumatera Utara. Medan. 2017.
- [20] Ratniati, N. K. Analisis sistem pemasaran ternak sapi potong PT Giant Great Livestock Company Lampung Tengah. Skripsi Institut Pertanian Bogor, Bogor. 2007.

- [21] Aditya, Januarino. Studi Empiris Faktor-faktor yang Mempengaruhi Struktur Modal pada Perusahaan Manufaktur di Bursa Efek Jakarta Periode Tahun 2000-2003. Skripsi Universitas Islam Indonesia : Yogyakarta. 2006.
- [22] Kohls, R.L. and Uhl J.N. Marketing of Agricultural Products. Ninth Edition. Macmillan Company. New York. 2002.
- [23] Hanafie, Rita. Pengantar Ekonomi Pertanian. CV Andi offset. 308 hlm. 2010.
- [24] Soekartawi. Prinsip Dasar Ekonomi Pertanian. Teori dan Aplikasinya. Penerbit Rajawali. 1989. Jakarta.
- [25] Mubyarto. Pengantar Ekonomi Pertanian. Jakarta :LP3ES. 1994.