Marketing Strategy Analysis of Certified Rice Seeds in the Sumber Berkat Breeder Group, Namurambe District, Deli Serdang Regency

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Abstract

This study analyzes the marketing strategy of certified rice seeds at the Sumber Berkat Seed Group in Namurambe District, Deli Serdang Regency. As Indonesia's main agricultural commodity, rice has a strategic role in meeting national food needs. However, rice seed marketing still faces challenges, including limited market access, limited capital, and the low bargaining position of farmers in the marketing chain. The research method used is a qualitative and quantitative descriptive approach. The analysis was carried out on the marketing system, marketing channels, marketing margins, farmer share, and marketing efficiency. The results of the study showed that there were two main marketing channels: (1) seed farmers - seed groups - retailers - consumers, and (2) seed farmers - seed groups - consumers. The second marketing channel proved to be more efficient with a marketing efficiency value of 5.2%, compared to the first channel which had an efficiency of 8.1%. In addition, supporting marketing factors include relationships with UPTD and markets, as well as support from related agencies. Meanwhile, the main obstacles faced are limited drying floors and business capital. Therefore, empowerment efforts are needed for seed farmer groups to improve managerial capacity, expand marketing networks, and strengthen their competitiveness in the certified rice seed industry.

INTRODUCTION

Indonesia is one of the agricultural countries that has great potential in the agricultural sector, especially in rice production as the main food commodity. As the global population grows, the demand for rice continues to increase, opening up opportunities for Indonesia to further develop its rice farming sector. However, in the midst of increasing food demand, the world is also faced with fossil energy limitations, which encourage the utilisation of alternative energy such as biofuels from agricultural products. This condition presents both opportunities and challenges for the agricultural sector, especially in maintaining a balance between food production and bioindustry development (BBPadi, 2019).

Rice (Oryza sativa L.) is a major food crop originating from Asia and West Africa. Rice cultivation has been practised since 3,000 BC in Zhejiang, China (Purwono & Purnamawati, 2007). As the main source of rice, rice is a staple food for Indonesians and is difficult to be replaced by other foodstuffs (Aak, 1990). Rice plays an important role in fulfilling the need for carbohydrates, with demand continuing to increase along with population growth and the development of the food and feed industry (Yusuf, 2010). Morphologically, rice plants have fibrous roots to absorb water and nutrients. The stem is cylindrical, dark green in colour, and turns yellow when entering the generative phase. The leaves are single, tapered, and about 100-150 cm long, while the flowers are arranged in panicles (Arafah, 2009).

In recent years, Indonesia has faced challenges in fulfilling its food needs independently. According to FAO (2017), around 200 million people in the world experience food shortages. The increase in population that is faster than the increase in food production further strengthens the urgency of increasing rice production. One of the steps taken to achieve high productivity is through agricultural intensification with the use of certified superior rice seeds Seed certification is a series of processes carried out by certification bodies to ensure that seeds fulfil set standards before being marketed. This process includes field inspection, laboratory tests, and strict supervision to ensure that the seeds are fit for circulation (Manzanilla et al., 2013). Superior seeds have advantages in terms of high yield and resistance to pests and diseases, which in turn contribute to increasing crop yields and farmers' welfare (Research and Development, 2017).

The success of rice cultivation is highly dependent on seed quality. Seeds that have high germination (90-100%), healthy, and pure have the potential to produce plants that are strong, uniform, and resistant to various environmental conditions (Suparyono & Setyono, 1993). According to the Regulation of the Indonesian Minister of Agriculture No. 39/Permentan/OT.140/8/2006, seeds are classified into several categories:

1. Breeder Seeds (BS): Seeds produced under the supervision of breeders to maintain the genetic purity of the

variety. Can be a mother tree or vegetative organ used as the basis for subsequent seed production.

2. Foundation Seeds (FS): Seeds derived from breeder seeds whose identity and purity are maintained according to the quality standards of foundation seeds. In vegetative propagation, it can take the form of an Entress source farm and is usually produced by government agencies.
3. Stock Seeds (SS): Seeds that are propagated from foundation seeds or breeder seeds with high purity standards. These seeds are distributed by seed centres and are the main source for seed production.
4. Extension Seeds (ES): Seeds produced from staple seeds, foundation seeds, or breeder seeds that have met quality standards. These seeds are produced by seed farms or breeder farmers for use in large-scale rice cultivation.

North Sumatra Province is one of the regions with great potential in developing the agricultural sector. Based on data from BPS North Sumatra (2019), the agricultural sector contributes significantly to the Gross Regional Domestic Product (GRDP), amounting to 20.48 per cent. main rice production centres in North Sumatra include the districts of Simalungun, Serdang Bedagai, Langkat, and Deli Serdang, which serve as the largest rice contributors in the province. Rice production in North Sumatra has increased from year to year, showing great potential in the development of seed business and marketing of agricultural products.

Nevertheless, the management and marketing of rice seeds at the farm level still face various obstacles. One of the main challenges is the suboptimal role of seed breeder groups in increasing the availability of superior seeds. Seed breeder groups often experience capital constraints due to late payment systems from buyers, such as state-owned companies or agricultural stores. In , the lack of guidance and counselling to farmers in terms of marketing certified seeds leads to limited market access and their low bargaining position in the marketing chain.

Marketing is the main activity in business that aims to maintain business continuity by connecting companies and consumers (Daryanto, 2011). The marketing process aims to fulfil the needs and desires of consumers, especially

in an era of fierce competition that demands customer-oriented companies (Basu & Hani, 2013). According to Stanton (2011), marketing includes planning, pricing, promoting, and distributing goods and services to buyers. Kotler (2002) adds that the purpose of marketing is not only to make a profit, but also to understand the market and customers so that the product remains in accordance with their needs. The marketing system consists of various interrelated elements, such as marketing organisations, products, target markets, intermediaries, and environmental factors that affect the company's relationship with consumers (Majid, 2008).

Seed breeder groups in Deli Serdang District, such as the Sumber Berkat Breeder Group in Hamlet 1 of Namurambe Sub-district, face problems in accessing capital and limited marketing networks. Farmers can only sell seeds to certain companies with payments delayed for 3-4 months, which has an impact on their business continuity. addition, farmers do not have access to adequate information regarding market prices at every level of the marketing chain, from collectors, agents, to retailers.

Based on these problems, several main issues can be identified, namely:

1. Limited marketing of rice seed yields that only depend on certain buyers with a slow payment system, thus reducing farmers' income and capital.
2. Lack of guidance and counselling to farmer groups of seed breeders, especially in terms of marketing strategies for certified seeds.
3. The marketing system for certified rice seeds has not been optimised, which has resulted in the low bargaining position of farmers in the market.

Empowerment efforts are needed for rice seed breeder groups to increase their capacity in managing seed businesses, expanding marketing networks, and increasing competitiveness in the market. This empowerment not only aims to increase farmers' knowledge, but also equip them with skills in designing more effective marketing strategies, so as to improve their welfare in a sustainable manner.

METHODS

This research was conducted in Namurambe District, Deli Serdang Regency, North Sumatra Province. The location was selected purposively with the consideration that this area is one of the centres of production and distribution of large quantities of rice seeds. The majority of the population in the area work as farmers. This research used descriptive qualitative and quantitative approaches. The qualitative approach was used to analyse the marketing system, marketing channels, and factors supporting and inhibiting marketing. Meanwhile, the quantitative approach was used to calculate marketing margins, farmer share, and marketing efficiency.

The research sample was selected using purposive sampling method, with respondents consisting of: 5 seed breeders, 5 seed wholesalers/retailers, and 10 buying farmers. The data used in this study consisted of primary data and secondary data. Primary data was obtained through direct interviews with respondents using a structured questionnaire. Secondary data were collected from various literatures, articles, and other related sources (Sugiyono, 2013).

The marketing system and marketing channel patterns were analysed descriptively, based on surveys and observations in the field. This study observed the marketing channel from seed breeder farmers to final consumers, to describe the distribution pattern of rice seeds in the study area. Marketing Margin, Farmer Share, and Marketing Efficiency were analysed as follows

Marketing margins are calculated to determine the price difference between what breeder farmers receive and what consumers pay at different levels of the marketing channel. According to Sudiyono (2004), the marketing margin is expressed as:

MP=Pr-PfMP= Pr -

Description:

- **MP**= Marketing margin (IDR/kg)
- **Pr**= Price at company level (IDR/kg)
- **Pf**= Farm gate price (IDR/kg)

Marketing channels are said to be efficient if the price received by farmers is greater than the overall marketing margin.

Farmer share measures the percentage of the price received by farmers compared to the price paid by final consumers. The calculation formula according to Soekartawi (2003):

Fs=PfPr×100%Fs= \frac{Pf}{Pr}

\times Description:

- **Fs**= Farmer's share (%)
- **Pf**= Price at producer/farmer level (IDR/kg)
- **Pr**= Price at consumer level (IDR/kg)

The higher the farmer share, the greater the share of the price that farmers receive.

Marketing efficiency is calculated based on the ratio between total marketing costs and total product value (Soekartawi, 2003):

EP=TBTNP×100%EP=\frac{TB}{TNP}times Description:

- **EP**= Marketing efficiency (%)
- **TB**= Total marketing costs
- **TNP**= Total product value

Factors supporting and inhibiting marketing were analysed descriptively based on surveys and observations in the field. Observations were made of the marketing system applied by rice seed breeder groups in the Berkat Breeder Group, Namurambe District, Deli Serdang Regency.

RESULTS AND DISCUSSION

Results

Namo Rambe Village has a population of 1625 people consisting of 781 men and 844 women, calculated based on the number of family heads (KK) inhabited by 563 . The distribution of the population according to age groups in Namo Rambe Village obtained from the Namo Rambe Village Office source, obtained that the productive age group, namely 15-60 years, was 1,115 people (68.61%). >Ages 0-4 years are 67 people (4.12%), ages 5-9 years are 141 people (8.68%), ages 10-14 years are 162 people (9.97%), ages 61-75 years are 121 people (7.45%) and ages over 75 years are 19 people 1.17%). This illustrates that the availability of labour in this village is still quite large. The most prevalent religion in the village is Christianity with a percentage of 48.74%, Islam with 24., Catholicism with 26.77% and Buddhism with only 0.06%.

Formal education both public and private is one of the important factors in managing farms. It can be seen from how farmers respond in terms of receiving technology or finding solutions to obstacles during the farming process so that farmers are able to optimise the farm. The higher a person's education, indirectly the farmer has broad insight in managing a farm, starting from the planting plan to the harvest, the farmer can already estimate the expenditure in accordance with the conditions at that time. It can be seen that from the livelihoods of the Namo Rambe village population the highest is 26.36% working as farmers, 3.21% working as farm labourers, 3.54% working as employees of private companies, 9.96% working as entrepreneurs, 26.49% working as students, 7.34% as , 4.26% as casual daily labourers, the rest are other professions such as traders of grocery goods, private nurses, private midwives, honorary employees, pharmacists, drivers and others.

Marketing Channel of Paddy Rice Seeds

Marketing channels of certified rice seeds that occur from 5 farmers who breed rice seeds in one farmer group, 5 village retail traders, 10 farmers/consumers of Namurambe village, Namurambe sub-district, Deli Serdang Regency. Seed breeder farmers do not sell directly to consumers but to farmer groups . Usually the Farmer Group comes directly to the farmer's location to buy the rice seeds so that the producer does not bear the cost of transportation, payment between farmers and the Farmer Group. With a selling price that is Dry Seed Grain (GKP) IDR 6,500 / kg.

Before the Farmer Group sells its products to consumers, the Farmer Group first contacts the retailers who will buy seeds. After the agreement, the farmer group with the selling price of Rp11,000/kg to the retailer. The way of purchasing paddy rice seeds carried out by retailers is by visiting the location and buying paddy rice seeds from the Farmer Group and buying paddy rice seeds at a purchase price of Rp11,000/kg. The production of paddy rice seeds is sold to consumers at a price of Rp15,000/kg. This marketing activity is carried out by consumers who buy directly to the Farmer Group at a price of Rp.11,000/kg by the way this consumer comes to the location of the breeder farmer group. This marketing channel is known through tracing where in the marketing process two marketing channels are formed.

Marketing channels are used to determine the marketing channels travelled by rice seed commodities from rice seed producers in Namurambe Village, Namurambe Sub-district, Deli Serdang Regency.

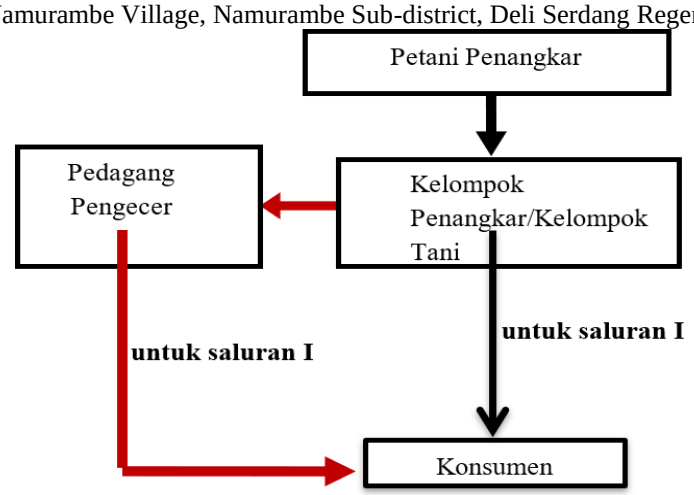

Figure 1 Schematic of the marketing channel for paddy rice seeds in Namurambe Village

Based on Figure 1, it can be seen that there are two marketing channels for rice seeds in Namurambe village farmer groups, namely: Channel I (Seed Breeder Farmer - Breeder Group - Retailer - Consumer), Channel II (Seed Breeder Farmer - Breeder Group - Consumer).

A. Channel

Seed Breeder Farmers-Seed Breeder Groups-Village Retailers-Consumers

Marketing channel I is carried out by farmers of paddy rice seed breeders who sell their products to seed breeder groups who act as collectors, the seeds are purchased at a price of Rp.6,500/Kg. The harvested seeds are packed with a 60kg jute.

After the paddy rice seeds are purchased, the seeds are arranged into lots/groups of seeds with a maximum of 15 tonnes/lot. Seeds are collected in one area/warehouse, seeds that have been arranged, then arranged by . Then the seed supervisor/inspector assigned from UPT.BPSB (Seed Supervision and Certificate Centre) takes± 1 Kg of each variety to be used as a laboratory test sample. The seed domain/sleep period is 21 days and the testing/labelling period takes 14 days. After the permit is issued from UPT.BPSB that the seeds have passed, then the can be processed. After the processing is complete, the seeds are packaged in bags with a size of 5 kg.

The total sales volume from farmer groups of paddy rice seeds is 10,000 kg, the average purchase volume from village retailers is 5000 kg. The packaged seeds are sold from farmer groups to retailers at an average price of Rp. 9,500 / Kg. Usually retailers buy packaged seeds / bags of larger purchase volumes from consumers who directly. Usually the packaged seeds are put into 60kg burlap. Packaged seeds purchased from farmer groups are stored in storage warehouses so that the seeds are guaranteed and protected from pests and diseases that will attack. Then it is sold back to the final consumer at an average price of Rp.11,000/Kg.

B. Channel II

Farmer seed breeders -Seed breeder groups -Consumers

Marketing channel II is carried out by farmers who sell their products to farmer groups, the seeds are purchased at a price of Rp.6,500/Kg. Farmer groups come to the seed breeder farmer's place. The breeder group sells to consumers at a price of Rp. 9,500/Kg. Marketing of rice seeds in Namurambe Village involves several marketing institutions in distributing rice seeds to reach consumers. Rice seed marketing institutions include business entities or individuals who are directly involved in the rice seed marketing process of Namurambe Village Farmers Group. Marketing institutions involved in the research location have their respective roles. Anchor (rice seed producer), is a marketing institution that acts as a rice seed producer and Farmers Group. Groups of seed breeders (collectors), are marketing institutions that act as traders who buy rice seeds from producers and sell rice seeds directly to retailers and to end consumers. Retailers, are marketing institutions that act as distributors of rice seeds purchased from agents and sold to final consumers.

Marketing functions are activities or actions needed in marketing to facilitate the process of delivering goods and services from producers to consumers. Marketing functions include exchange functions, physical functions and facility functions. Marketing institutions perform marketing functions in the process of delivering rice seeds from breeder farmers to consumer farmers (consumers). The marketing functions performed by each

institution can be described as follows:

a. Marketing Function at the Seed Farmer Level

In conducting rice seed production, breeder farmers receive assistance from the Food Crops and Horticulture Service in the form of production facilities as well as guidance and counselling. This is done by the Food Crops and Horticulture Service to ensure the amount of production and quality of seeds produced by breeder farmers

The success in producing seeds is determined by how farmers can properly manage the production factors (inputs) used to produce optimal outputs that can overcome various constraints that arise both constraints from nature and market developments. Activities in the agricultural sector that involve the production process are always faced with risks and uncertainties. Usually the risks experienced by farmers usually occur from nature, namely the climate, an uncertain climate at this time can affect production and harvest results which are usually called crop failure, because the results cannot be sold because they are not feasible. pests and diseases are also a risk that always comes to farmers because pests and diseases that attack and cause defective or imperfect seed results usually farmers overcome them with pesticides or natural ingredients that can repel pests and overcome diseases in rice plants, water treatment and irrigation channeled to irrigated land that is not suitable will result in the risk of drought.

Farmers are the ones who carry out the farming activities of paddy rice seed breeders in Namurabe Village. Farmers play a role in producing paddy rice seeds and selling them to marketing institutions. , farmers act as producers, not as marketing institutions. Based on this research, farmers of paddy rice seeds have three marketing functions, namely exchange function, packing function and transport function. After the rice seeds are harvested called wet harvest grain (GBP), the rice seeds are put into burlap after it is transported, then the seeds are dried in the field or drying floor to dry the rice seeds into dry harvest grain (GKP) and put back into burlap, after which it is sold to the collector, namely the seed farmer group with a selling price of Rp.6,500, -.

In conducting marketing activities, seed breeder farmers sell seeds to groups of breeder farmers as collectors. In conducting marketing activities, seed breeder farmers sell seeds to groups of breeder farmers. In the marketing/distribution of goods, the element of transport cannot be ignored. Transport plays an important role in moving goods from producers to consumers. Disruptions or obstacles in transport activities will result in delays in goods to consumers and can also lead to increased marketing costs.

The costs incurred from the transport activities that occur will be charged to farmers who are included in the selling price of Rp.6,500 - kg. Transporting is transporting the production from the farmer's location to the location of the collection of packaged rice seed production, namely the farmer breeder group as a collector. The transport they use in general to transport using motorbikes and transport cars such as pick up cars. The marketing function carried out by seed breeder farmers is the exchange function (purchase), and the physical function (transport).

b. Marketing Function at the Farmer Group Level (Farmer Group)

Farmer groups act as collectors and as a place where packaging activities are carried out, seeds sold by farmers in burlap are weighed with a weighing scale according to size and paid at a price of Rp.6,500, - / kg. Seeds that have been purchased are stacked to form lots/groups of seeds with a maximum of 15 tonnes/lot. The stacking is arranged in such a way as to facilitate supervision and easy to take seed samples taken as laboratory test samples to determine whether or not the seeds pass to be processed into packaged seeds that can be sold (marketed) and as well as facilitate their maintenance. During storage, the seeds are fumigated with phostoxin and sprayed with pesticides. Each seed lot is given an identity card containing the seed lot number, variety, harvest date, quantity, test date, expiry date and spray date. The stacks are lined with planks or wooden blocks to prevent the seed sacks from falling directly to the floor. During storage, moisture content, germination and possible pest infestation should be checked regularly. If the moisture content increases by more than 13 per cent, it must be dried immediately, and if pest infestation is observed, it must be fumigated immediately. In addition, warehouse sanitation must be carried out regularly and continuously, with conditions gradually checked.

Seeds that have been purchased from farmers are processed, namely processing from harvested dry grain (GKP) into clean seeds (BB) which are packaged in bags into bagged seeds (BK). Processing of rice seeds starts from harvested dry grain (GKP) sorted into milled dry grain (GKG) sorted again into dirty dry grain (GKK) grain which is put in burlap then taken 1 Kg to be used as a laboratory sample waited for a month (selection) after selection then sorted finally into clean seeds (BB). The purpose of sorting here is a seed selection process that aims to separate rice seeds that look good, are feasible and in accordance with the provisions determined by the seed certification body to become passed seeds (BL). The passed seeds (BL) that have been sorted are put into a 5 Kg package (bag) to become bagged seeds BK).

The selling value of a product or an agricultural commodity is also determined in the packaging process. Packaging can affect the durability of a product. Good packaging can protect a product from damage that can reduce quality and ultimately reduce the selling value of product. If a product is packaged in an attractive form, consumers will be interested in buying it. Unlike the case if it is packaged in a form that is not good and not attractive, then consumers tend not to be interested in buying it because the packaging is not to taste and usually packaging is also done to reduce the risks that occur in agricultural products or commodities, namely rice seeds.

Packaging is the activity of wrapping seeds that have passed certification using 5 kg bags that have been labelled. Packaging is handled specifically by the storage and packaging sub-section which has the responsibility for handling clean seeds. After packaging the rice seeds will be stored in the warehouse before being purchased by consumers. A marketing process needs market information is something that is definitely needed by every institution involved in it. Market information is needed to find out market conditions, location, type and quality of products, time, and market prices. Every marketing institution involved in rice seed marketing in Namurambe Village conducts market information activities. Market information is needed to know exactly when the harvest season occurs to become the basis for marketing institutions in distributing rice seeds from producers to consumers (seed breeder farmers).

Consumers (seed breeder farmers) are highly dependent on existing marketing institutions to obtain rice seeds. Therefore, marketing institutions must pay attention to the distribution of rice seeds because, if the distribution of rice seeds can be sustainable, then seed breeder farmers have no difficulty in obtaining rice seeds and in determining price certainty. A risk can occur in various processes including the marketing process of rice seeds. Risks can be experienced by every institution involved in it such as farmer groups, breeders, and retailers. Risks that occur are usually in the form of an increase and decrease in the quality and price of seeds in the market.

Farmer Breeder Groups must bear the risk of increasing and decreasing the price of rice seeds, if there is a decrease in the price level, the level of profit obtained by the Farmer Breeder Group will decrease. Another risk is production delays, because if production is not on time, rice seeds are at risk of not selling in the market, when delivering rice seeds to retailers. If the volume weighed before the goods arrive at the retailer's shop is not the same as the volume weighed upon arrival at the retailer's shop, then the depreciation costs are the responsibility of the farmer breeder group. Similarly, if the packaging of rice seeds is damaged, they are also responsible for replacing it with new rice seeds.

Standardisation is the collective effort to establish standards. Standards ensure the products and services we want, in terms of quality, environmental friendliness, safety, reliability, and efficiency at an economical cost. If the products and services meet the expectations of consumers, then the products and services produced can be accepted by consumers. However, if there is no standard, then the farmer breeder group as a packaged seed producer will know it immediately. If the products and services run smoothly then it can meet the standards. The marketing function carried out by farmer groups is the exchange function (buying and selling), physical function (storage and processing, packaging), facility function (market information, risk management and standardisation).

c. Marketing Function at the Retailer Store Level

Retailers buy bagged seeds from farmer group traders, and the packaged seeds are collected using transport. In the marketing/distribution of goods, the element of transport cannot be ignored. Transportation plays an important role in moving goods from the location of the farmer group to the location of the retailer's shop. Disruptions or obstacles in transportation activities will result in delays in goods to the hands of consumers and can also lead to increased marketing costs incurred by retailers. After transporting from the location of the breeder farmer group to the location of the diluent shop, the packaged seeds are burned. And then storage is carried out in the warehouse, usually the warehouse is located next to and behind kiosk or shop. Stored until consumers buy the packaged seeds. A marketing process needs market information is something that is definitely needed by every institution involved in it. Market information is needed to know market conditions, location, type and quality of products, time, and market prices.

Every marketing institution involved in rice seed marketing in Namurambe Village conducts market information activities. Market information is needed to know exactly when the harvest season occurs to become the basis for marketing institutions in channelling rice seeds from producers to consumers (farmers). Consumers (rice farmers) are very dependent on existing marketing institutions to obtain rice seeds. Therefore, marketing institutions must pay attention to the distribution of rice seeds because, if the distribution of rice seeds can be sustainable, then the seed breeder farmers have no difficulty in obtaining rice seeds and in determining price certainty.

Meanwhile, the retailer store must bear the risk when the rice seeds that have not been sold out are damaged due to negligence in the storage process or unwanted disturbances such as being eaten by rats, affected by pests and so on, the risk is borne by the diluent store. The marketing function carried out by the diluent shop (kiosk) is the exchange function (buying and selling), physical function (storage, loading and unloading), facility function (market information, risk management).

d. Marketing Function at the Consumer Level (consumer farmers)

Consumer farmers as consumers in each existing channel, seed breeder farmers make purchases with marketing institutions, namely breeder farmer groups and diluting shops. Based on field research, the selling price of consumers is known by interviewing marketing institutions in each channel to find out the price sold to

consumers, the consumer purchase price is Rp.11,000.

Transport plays an important role in moving goods from producers to consumers. Transport activities carried out by consumers, namely transporting 5 kg packaged seeds from the location of the breeder farmer group and retailer shops to the place where the consumer who buys the rice seeds is transporting this by using transport such as motorbikes or transport cars (pick up cars). The marketing function performed by consumers is the exchange function (purchase), and the physical function (transport).

Marketing Margin, Farmer Share, and Marketing efficiency

Marketing Margin

Marketing Margin is used to determine the difference between the producer selling price received by breeder farmers and the purchase price paid by consumers at various levels of the marketing channel. The marketing margin can be expressed by the following formula:

MP= Pr - Pt

Description:

MP= Marketing Margin (Rp/Kg)

Pr = Price at Company Level (IDR/Kg)

Pf = Farm gate price (Rp/Kg)

Price information from research results:

The price of rice seeds at the rice seed breeder is Rp.6,500 and at the Sumber Berkat Farmer Group is Rp.9,500

The price of rice seeds at retailers is Rp. 11,000/Kg.

The price of rice seeds in rice seed companies is adjusted to the label obtained by the rice seeds, for example, the Sumber Berkat Farmer Group uses a purple label with a selling price of Rp. 9,500/Kg.

Channel I:

So the Marketing Margin in the marketing channel of the breeder farmers - Sumber Berkat Farmer Group is:

Channel I Marketing Margin:

MP = Price at collecting agent level - price at breeder level

MP = Rp. 9,500 - Rp. 6,500

= IDR 3,000

So the difference in the price of rice seeds in channel 1, the rice seed breeder with the rice collecting agent is Rp. 4,500/Kg, because the breeder sells his seeds to the agent/group leader.

MP= Price at retailer level - price at collecting agent level

MP= Rp.11,000 - Rp. 9,500

MP= IDR 1,

So the difference in the price of rice seeds in channel 1, retailers with rice collecting agents is Rp. 4,000/Kg, because retailers rice seeds at a price of Rp. 4,000/Kg.

consumer seeds.

So the difference in the price of rice seeds in channel 1, collecting agents with rice seed companies is Rp. 4,000/Kg.

So the total overall marketing margin in channel I is Rp. 6,000 / Kg.

Marketing Costs of Agents/Group leaders in channel I for rice seed marketing can be seen in table 1

Table 1. Marketing Costs of Agents/Group Heads in Channel I of Rice Seed Raising of Sumber Berkat Farmer Group

No.	Cost Type	Amount of Cost	
		Rp/Kg	%
1.	Testing	50	10
2.	Label	50	10
3.	Packaging	200	40
4.	Storage	200	40
	Total	**500**	**100**

Marketing costs of rice seed companies in channel I in managing rice seed marketing can be seen in the following table.

Table 2. Marketing Costs of Seed Companies/Breeding Centres in Channel I

No.	Cost Type	Amount of Cost

		Rp/Kg	%
1.	Packaging	200	50
2.	Storage	200	50
	Total	**400**	**100**

Channel II:

Marketing Margin of channel II:

MP = Price at seed breeder level - Price at farmer level MP = Rp. 9,500 - Rp. 6,500= IDR 3,000

So the difference in the price of rice seeds in channel II, seed breeders - seed companies is Rp. 11,000/Kg, because the breeders sell their seeds directly to the company / breeding without the intervention of agents / group leaders. Marketing costs of rice seed companies in channel II in managing rice seed marketing can be seen in table 3.

Table 3. Marketing Costs of Seed Raising in Channel II

No.	Cost Type	Amount of Cost	
		Rp/Kg	%
1.	Packaging	200	50
2.	Storage	200	50
	Total	**400**	**100**

Source: Primary Data, 2021

For a clearer discussion of marketing costs and marketing margins of certified rice seeds in marketing channel I and marketing channel II can be seen in table below:

Table 4. Price Spread and Channel Margin Share of Marketing Institutions in Channel I (Producer - Farmer Group - Retailer - Consumer)

No.	Marketing Cost Institutions and Components	Price Spread	Share Margin (%)
1	Farmers		
	- Selling Price	6.500	59,09%
2	Farmer group		
	a. Purchase Price	6.500	
	b. Marketing Costs		
	-Packing Costs Packaging	200	1,8%
	-Lab Testing Costs	50	0,45%
	-Label Cost	50	0,45%
	-Storage Costs	200	1,8%
	Total Cost	500	4,5%
	c. Advantages	2500	22,7%
	d. Margin	3000	27,2%
	f. Selling Price	9.500	
3	Retailer Shop		
	a. Purchase Price	9.500	86%
	b. Marketing Costs		
	- Packaging Cost	200	1,8%
	- Storage Costs	200	1,8%
	Total Cost	400	3,63%
	c. Advantages	1.100	10%
	d. Margin	1.500	13,6%
	f. Selling Price	11.000	
4	Consumer		
	- Purchase Price	11.000	100%
	Total Marketing Cost	**900**	**8,18%**
	Total Profit	**4.000**	**36,36%**
	Total Marketing Margin	**4.500**	**40,90%**

Source: Primary Data, 2021

The list of prices for rice seeds of the impari 32 variety based on the type of certification label by certified

rice seed companies can be seen in Table 6:

Table 6 Price List of Certified Rice Seeds by Certification Label

No.	Marketing Cost Institutions and Components	Price Spread	Share Margin (%)
1	Farmers		
	- Selling Price	6.500	68%
2	Farmer group		
	a. Purchase Price	6.500	
	b. Marketing Costs		
	-Packing Costs Packaging	200	2,1%
	-Lab Testing Costs	50	0,52%
	-Label Cost	50	0,52%
	-Storage Costs	200	2,1%
	Total Cost	500	5,2%
	c. Advantages	2500	26,3%
	d. Margin	3000	31,5%
	f. Selling Price	9.500	
3	Consumer		
	- Purchase Price	9.500	100%
	Total Marketing Cost	**500**	**5,26%**
	Total Profit	**2.500**	**26,31%**
	Total Marketing Margin	**3.000**	**31,57%**

Source: Primary Data, 2021.

The list of prices for rice seeds of the impari 32 variety based on the type of certification label by certified rice seed companies can be seen in Table 6:

Table 6 Price List of Certified Rice Seeds by Certification Label

No.	Label	Price/Kg	Price/5Kg
1	Yellow	IDR 20,000	IDR 100,000
2.	White	IDR 15,000	IDR 75,000
3.	Purple	IDR 12,000	IDR 60,000
4.	Blue	IDR 10,000	IDR 50,000

Source: Head of the Breeding Group

Farmer Share

Farmer Share is used to determine the share of the price received by the breeder from the price at the consumer level expressed as a percentage. The price received by breeders can be expressed using the following formula:

$$Fs = \frac{Pf}{Pr} \times 100\%$$

Description:
Fs= Farmer Share
Pf= Price at producer/breeder level
Pr= Price at consumer level

So the Farmer Share in the marketing channel of seed breeder farmers - Farmer Groups / seed breeder groups - retailers is:

Farmer Share Channel I:

$$Fs = \frac{6.500}{9.500} \times 100\%$$

Fs= 0.59× 100%

Fs= 59%

So the share of the price received by breeder farmers from the price at the consumer level is 59%.

Farmer Share Channel II:

$$Fs = \frac{6.500}{9.500} \times 100\%$$

Fs= 0.68× 100%

Fs= 68%

So the share of the price received by breeder farmers from the price at the consumer level is 68%.

For more details, please refer to table 7.

Table 7. Farmer Share of Marketing Channels in Namurambe Village, Namurambe Sub-district, Deli Serdang Regency

Channe Marketing	Pric at Farmer Breeders	Pric in the Seed Breeder group	Price at Retailer	Farmer Share (%)
I	6.500	9.500	11.000	59%
II	6.500	9.500	0	68%

Source: Primary Data, 2021

Marketing Efficiency

Marketing efficiency is used to determine the efficient marketing channels to be used for rice seed breeders. Marketing efficiency can be expressed by the following formula:

$$EP = \frac{TB}{TNP} \times 100$$

Description:

EP = Marketing Efficiency

TB = Total Marketing Costs

TNP= Total Product Value

Channel I:

TB= Cost at farm level+ Cost at seed breeder group level+ Cost at retailer level+ Cost at consumer level

TB= Rp. 0+ Rp. 500+ 400+ 0

TB= Rp. 900

$$EP = \frac{TB}{TNP} \times 100$$

TB= Cost at farm level+ Cost at seed breeder group level+ Cost at retailer level+ Cost at consumer level

TB= Rp. 0+ Rp. 500+ 400+ 0

TB= Rp. 900

$$EP = \frac{900}{11.000} \times 100\%$$

EP= **8.1%**

Channel II:

TB= Farm-level costs+ firm-level costs+ consumer-level costs

TB= Rp. 0+ 500+ 0

TB= IDR 500

$$EP = \frac{500}{9.500} \times 100\%$$

EP**= 5,2%**

Discussion

Marketing efficiency can be shown by: 1) Low marketing costs, 2) Short marketing channels, 3) The percentage difference in prices paid by consumers to producers is not too high (Rahmanta, 2014).

So from the above exposure, the marketing cost in marketing channel I is Rp. 900 and the marketing cost in marketing channel II is Rp. 500. Therefore, it can be stated that marketing channel I is inefficient, and marketing channel II is declared . The reason is because the marketing costs in marketing channel I are large compared to the marketing costs in marketing channel II. The marketing channel in channel I is quite long compared to the marketing channel in channel II. This shows that marketing channel II is more efficient than marketing channel

I. After that, the marketing margin in channel I is Rp. 5,500 while in channel II the marketing margin is Rp. 3,000. This shows that marketing channel II is more efficient than marketing channel I, because the marketing margin of channel II is not too high. Marketing efficiency in marketing channel I is 8.1% while marketing efficiency in marketing channel II is 5.2%. This shows that marketing channel II has lower marketing costs than marketing channel I. From the explanation above, it can be seen that the most efficient marketing channel is marketing channel II.

Factors Supporting and Constraining Rice Seed Marketing Marketing Supporting Factors

Marketing support factors are factors that are used to smooth marketing so that marketing runs properly without any obstacles or . The factors supporting rice seed marketing, namely: 1) Relationship to UPTD and the market; 2) The group leader must be able to relate well to the UPTD and the Market, so that the marketing of paddy seeds can run smoothly. Because the group leader sells his paddy seeds to UPTD and to the market; 3) Relationship to the Ministry. Group leaders must cooperate with agencies related to agriculture, so that agencies can see the conditions of groups in their areas of farming, such as providing assistance to farmer groups, etc.

Marketing Barrier Factors

Marketing inhibiting factors are factors that hinder the marketing process or hinder the marketing of rice seeds. This is what makes losses in rice seed breeding. As for the factors inhibiting the marketing of rice seeds, the drying floor of rice is still minimal. Rice farmers expect drying floor facilities assistance from the government, this makes the process of drying rice that requires time that is not optimal. The reason is that farmers prefer assistance rather than spending money to rent a rice drying floor.

CONCLUSION

There are 2 marketing channels for certified rice seeds, namely: a. Channel I and b. Channel II. The marketing margin of paddy rice seeds at the collecting agent level is Rp. 6,500 per kilogram, while the marketing margin at the retailer level is Rp. 1,100 per kilogram. Farmer share or price share received by breeders from consumers in channel I is 59%, while in channel II it is 68%, so the greater farmer share / price share received by breeders in channel II because breeders sell directly to . Marketing efficiency of channel I, the marketing efficiency value is 8.1%, therefore the marketing efficiency of channel I is declared efficient. While channel II, the marketing efficiency value is 5.2%, therefore the marketing efficiency of channel II is declared efficient. Factors supporting marketing are: a. relationship to UPTD and Market, b. relationship to the Agriculture Office; while the factors inhibiting marketing are: a. Rice drying floor that is still minimal, b. Capital for seeds.

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