

THE MARKETING CHAIN OF RICE PRODUCTS IN ACEH PROVINCE

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ABSTRACT

Rice is a leading commodity in the food crops sub-sector in Indonesia. The main problems that are often faced by paddy farmers are the low level of productivity, the lack of certainty in marketing, and fluctuations in the price of rice and high marketing margins. This research was conducted purposively in Aceh Province. The research locations chosen were Aceh Besar and North Aceh districts. The method used is descriptive analysis carried out by identifying existing Marketing Chains so that they can find out the product delivery process from marketing institutions. This analysis uses quantitative analysis by calculating the marketing margin, farmer's share, and the ratio of benefits and costs. The results of the study are that there are 3 Marketing Chains for rice in the province of Aceh. Based on the facts in the field, farmers sell directly to collectors or rice mills to make rice. The price of rice that is marketed is determined by the traders themselves according to the amount of costs required in the marketing process by each marketing agency. The suggestion that can be given is to provide access to capital for farmers so that farmers are able to buy certified seeds which can later increase the quantity and quality of production.

Keywords: *food, paddy, marketing chain, marketing efficiency, rice*

BACKGROUND

Food problems and food security cannot be separated from the rice commodity, where paddy is a product produced from paddy plants. Paddy is the leading commodity in the food crop sub-sector in Indonesia. In 2021 the paddy harvest area in Indonesia will reach 10.41 million hectares with a total production of 54.42 million tons of GKG (Badan Pusat Statistik, 2022). The product produced by the paddy is a staple food consumed by almost all Indonesian people. Rice is the main food commodity that affects people's welfare which is difficult to be replaced by other food commodities. Indonesia is an agricultural country with a large area of agricultural land and rich and varied natural resources. In an agrarian country, agriculture plays a very important role in both the social, economic and basic needs sectors, and plays an important role in promoting trade.

The province of Aceh, which consists of 23 districts, all produce paddy except for Sabang District. Aceh Province is a centre for paddy production in Indonesia which is targeted to be able to self-sufficient in paddy and become a national food barn (Baihaqi et al., 2021).

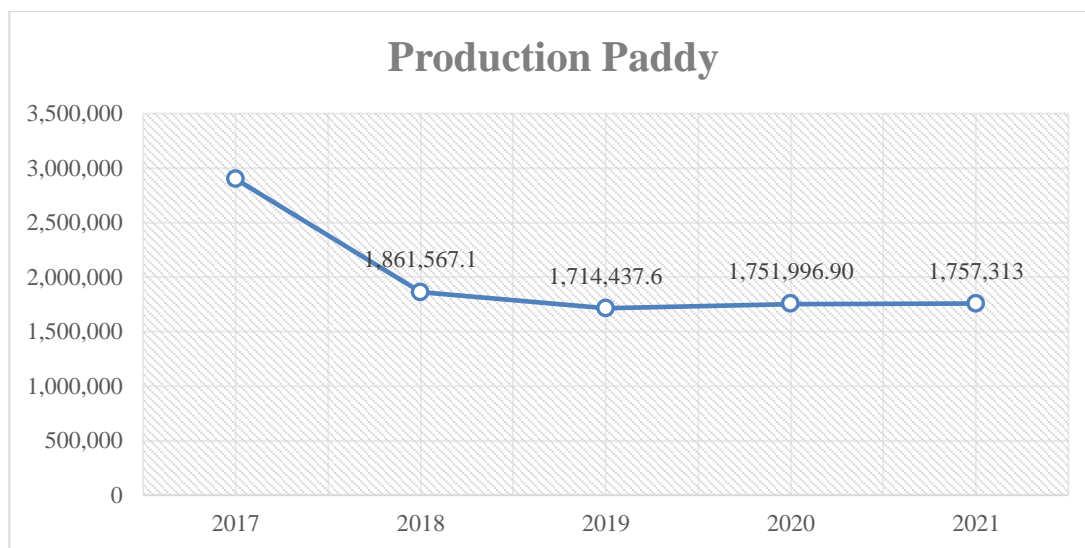


Figure 1. Paddy Production in Aceh Province in 2017-2021

Source: Badan Pusat Statistik, 2022

In Figure 1 it can be seen that from 2017 to 2022 paddy production has fluctuated, where a decline in paddy occurred in 2018 and increased again in 2020. In 2017, paddy production in Aceh Province was 2,900,000 tons and in 2018 it decreased to 1,861 567.1 tons and in 2019 there were 1,714,437.6 tons. In 2020, paddy production will increase again, namely paddy production in 2020 of 1,751,996.9 tons and in 2021 as much as 1,757,313 tons.

The main problems that are often faced by paddy farmers are the low level of productivity, the lack of certainty in marketing, and fluctuations in the paddy of paddy and high marketing margins. The low price of paddy at the farm level can be caused by market structures that tend to be inefficient, paddy uncertainties and government regulations that have not been good. According to Handayani et al., (2020), the factors that influence the pricing of paddy in the domestic market are the real exchange rate and the floor paddy for grain. Paddy uncertainty received by farmers can be caused by marketing uncertainties. Marketing has a very important function in connecting producers with consumers and provides a large added value in the economy. Therefore, marketing should be efficient.

The price that will be obtained by farmers will of course fluctuate, this causes farmers to have difficulty in determining when the right time to sell their products, causing uncertainty in the price that will be obtained by farmers. Such matters are part of market information. According to Anindita, (2017), proper market information will facilitate marketing decisions, regulate market competition processes, and expedite marketing. As for efforts to improve the efficiency of rice marketing, market players and policy makers must focus on choosing the right Marketing Chains and ensuring the stability of rice prices in the regions (Husnarti & Amelia, 2020).

Assessment of the distribution of prices paid by end consumers to farmers can be carried out by calculating marketing margins. Marketing margin can be used as an indicator of the efficiency of a marketing system that evaluates what functional activities are carried out with the aim of increasing use value or added value so that the final consumer is satisfied. The more implementation of the function, the more costs will be incurred. Some examples of these functions are storage, grading and

sorting as well as hygienic processing and packaging. Therefore, based on the explanation above, this study aims to analyse the marketing chain of rice products in aceh province.

RESEARCH METHODS

This research was conducted purposive in Aceh Province. The research locations chosen were Aceh Besar and North Aceh districts because these two districts have the highest land area and rice production in Aceh Province. This research was conducted from June to September 2022. The population used was paddy farmers. The research sample uses quota sampling. Quota sampling has advantages over other sampling methods, which are easier and more accurate methods, easy to produce samples, managed without pressure, and does not require a sampling framework (Iliyasu & Etikan, 2021). The quota sampling technique provides flexibility for researchers to determine the characteristics of the sample and the number of samples to be studied. The target sample taken was divided into district groups, namely North Aceh and Aceh Besar districts, where each group was taken by 25 respondents each with a total of 50 respondents.

Analysis of Marketing Chains using descriptive analysis is carried out by identifying existing Marketing Chains so that they can find out the process of delivering products from marketing agencies. The Marketing Chain is a system for delivering products produced by producers to consumers. Analysis of market efficiency can be seen from market performance (market performance). Marketing efficiency is a measure of the level of satisfaction obtained by consumers and institutions involved in marketing to the final consumer. This analysis uses quantitative analysis by calculating marketing margins, farmer's share, and profit and cost ratios. To find out the efficiency used the formula:

$$MP = Pr - Pf$$

Information:

- MP : Marketing margin
Pr : Prices at the consumer level
Pf : Price at producer level

Farmer Share is the price difference at the farm level with the marketing margin or the ratio of the price received by the farmer to the price paid by the final consumer in percentage form. Farmer Share can be calculated by the formula:

$$\text{Farmer Share (Fs)} = \text{Price Farmer (pf)} / \text{Price Consument (pc)} \times 100\%$$

Information:

- Fs : Farmer Share
Pc : Purchase price at consumer level
Pf : Selling price at farmer/producer level

The decision rule according to:

1. If $FS > 40\%$ it is said to be efficient

2. If $FS < 40\%$ it is said to be inefficient

Marketing efficiency is the ratio between the marketing costs of a product and the price of that product. The marketing system is an interconnected component, so that marketing is said to be efficient and effective if the system can provide incentives to actors that can encourage them to make decisions in an appropriate and efficient manner. Marketing efficiency (Ep) can be calculated by the formula:

$$Ep = Bp/Np \times 100\%$$

Information:

Np : Product price value

Bp : Marketing costs

Ep : Marketing efficiency

The decision rule for marketing efficiency is as follows:

1. If the Ep value is 0-33% : Efficient
2. If the Ep value is 34-67% : Less Efficient
3. If the Ep value is 68-100% : Inefficient

RESULT AND DISCUSSION

Respondent Characteristics

Respondents in this study were farmers in Aceh Besar and North Aceh districts. While the marketing agencies involved in rice marketing activities in Aceh Province are farmers, collecting agents, large agents, rice mills, small rice traders, rice wholesalers.

The respondents (farmers) in this study were 50 respondents. The average age of the respondents is adult (30-50 years) with a percentage of 64% of the total respondents. The average education of the respondents is high school equivalent with a percentage of 54%. The average number of dependents of respondents is > 5 people or 48%. The average respondent's farming experience is 20-50 years or 34.1%. The area of land owned by respondents with an average of ≤ 1 Ha or 96.9%. The average respondent's main livelihood is farming with a percentage of 90%.

Marketing Chains in the Province of Aceh

Marketing Chains are a combination of several organizations that are interconnected in order to distribute goods to consumers, which are included in the manufacture of goods and services that exist for consumer consumption.

Marketing Chains are the most important thing for producers in channelling their production so that it can be used by consumers and the general public. There are three paddy Marketing Chains in Aceh Province. These Marketing Chains can be described in Figure 2.

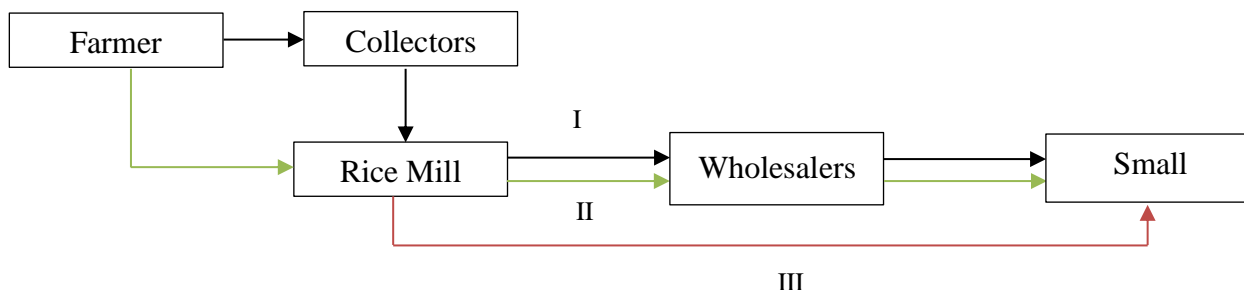


Figure 2. Marketing Chains in Aceh Province
Source: Primary Data, 2022

Marketing Margin

Marketing margin is the difference between the selling price and the buying price of a product at every marketing agency involved in a marketing activity. In the province of Aceh, on average there are three Marketing Chains for rice. The average acquisition rate of rice marketing margins obtained by each distribution agency is presented in Table 1.

Table 1. Marketing Margin of each Marketing Chain in Aceh Province

Description	Marketing Chains	Buying Price (Rp/kg)	Selling Price (Rp/kg)	Marketing Margin (Rp)
Farmer- Collectors		-	5,500	-
Collectors - Rice Mill		5,500	5,700	200
Rice Mill - Wholesalers		5,700	10,000	4,300
Wholesalers- Small Merchant	I	10,000	10,500	500
Small Merchant - Consument		10,500	12,000	500
Farmer- Rice Mill		-	5,800	-
Rice Mill -Wholesalers		5,800	9,500	3,700
Wholesalers- Small Merchant	II	9,500	10,000	500
Small Merchant - Consument		10,000	10,300	300
Farmer- Rice Mill		-	5,800	-
Rice Mill -Small Merchant	III	5,800	10,300	4,500
Small Merchant - Consument		10,300	10,700	400

Source: Primary Data, 2022

According to Ali (2020), the average marketing margin in Bireuen is almost the same as the results of research that I found in the field. There is only a difference in the buying price and the selling price of rice in each rice marketing chain in Aceh. This is because the buying and selling prices for each district in Aceh province are almost the same.

Marketing Cost

Marketing costs are costs incurred for the purposes of marketing a product which includes transportation costs, labor costs, and other costs required in the Marketing Chain. Marketing costs occur because of the distance between producers and consumers. If the distance between producers and consumers is short, transportation costs can be reduced. The longer the distance from producers or from traders to consumers, the more intermediaries (marketing institutions) are involved, the higher the marketing costs.

Rice marketing activities require marketing costs. Then the marketing costs are incurred by each marketing agency involved. Marketing costs borne by each marketing agency in each channel are relatively the same. In all existing channels, farmers as producers do not incur marketing costs to market semi-organic rice, but all marketing costs are borne by the collecting traders because the collecting traders hire people to transport the semi-organic rice from the farmer's house to the storage factory or to the warehouse owned by the collecting traders. . The amount of marketing costs can be influenced by several things such as the distance, the scale of the trader's business, the number of workers, and the quality of the rice. The amount of marketing costs will affect prices at the level of end consumers and farmer share. Marketing costs also affect the assessment of whether or not a marketing agency is efficient in distributing its goods.

According to Oksalia (2022), marketing costs arise from exchanges between the company and the customer. These expenses include sales promotion, distribution, advertising, marketing research, and product development. Accountants sometimes use distribution costs and selling costs interchangeably with marketing costs. Based on the marketing management concept, the marketing manager develops a company-wide plan that includes all aspects of the operating cycle.

Table 3. Marketing Costs for Each Paddy Marketing Chain in Aceh Province

Description	Marketing Chain (Rp/Kg)		
	I	II	II
1. Farmer			
a. Buying Price	-	-	-
b. Selling Price (GKP)	5,500	5,800	5,800
2. Collectors			
a. Buying Price	5,500	-	-
b. Marketing Margin	200	-	-
Marketing Cost	50	-	-
Profit Margins	150	-	-
c. Selling Price (GKP)	5,700	-	-
3. Rice Mill			
a. Buying Price	5,700	5,800	5,800
b. Marketing Margin	4,300	3,700	4,500
Marketing Cost	2,500	2,500	2,500
Profit Margins	1,800	1,200	2,000
c. Selling Price (Rice)	10,000	9,500	10,300
4. Wholesalers			
a. Buying Price	10,000	9,500	-
b. Marketing Margin	500	500	-

Marketing Cost	150	150	-
Profit Margins	350	350	-
c. Selling Price (Rice)	10,500	10,000	-
5. Small Merchant			
a. Buying Price	10,500	10,000	10,300
b. Marketing Margin	500	300	400
Marketing Cost	100	100	100
Profit Margins	400	200	300
c. Selling Price (Rice)	12,000	10,300	10,700

Source: Primary Data, 2022

In the table above it can be seen that the selling price of grain by farmers in the second and third channels is higher than that of the first marketing chain because grain is purchased from farmers around the mills (village paddy mills) so there is no need to incur high transportation costs and grain quality is generally better. The price of milled rice is only Rp 5,700/kg lower than the price of factory rice. The difference is because the quality of milled rice is generally lower than that of factory products, especially in terms of the less white colour and the high percentage of bran and broken rice content. The quality of factory rice is better because factory traders have better grain/rice processing facilities compared to village mills.

Balau et al. (2019) stated that the amount of marketing margins on different marketing channels can vary depending on the length of the marketing channel and the activities carried out, as well as the expected profit from the marketing agencies involved in marketing. In addition, according to Yusri et al., (2021) distribution patterns and product flows between marketer’s form marketing costs in accordance with the marketing functions carried out by each marketing agency.

Farmer Share

Farmer's share or the share received by farmers is the percentage comparison of prices at the farm level with prices at the consumer level. The share received by both small and large farmers shows whether or not the distribution of profits by collectors, wholesalers, and retailers to farmers is equitable. The share received by farmers will be smaller if there are too many parties involved in rice marketing. there are 3 paddy Marketing Chains in Aceh province, namely: farmers - collectors - rice mills - wholesale - retail; farmers - rice mills - wholesale – retail; farmers - rice mills - retail. The amount of share received by farmers, millers, retailers and wholesalers of rice involved in each Marketing Chain can be seen in the table below

Table 4. Farmer Share for Each Paddy Marketing Chain in Aceh Province

Number	Marketing Chain	Farmer Share (%)
1	I	42
2	II	48
3	II	42

Based on the specified farmer share decision rules, it can be said that the most efficient farmer share is channel I and II. In other words, channel I and III paddy marketing are more efficient than

rice marketing in channel II. Wijaya & Tanjung (2022) argue that too long a marketing channel to traverse causes the marketing channel to become less efficient. This is because it will cause the farmer share to get bigger and the part received by the farmers will get smaller. However, farmers generally depend on middlemen in marketing their products. This dependence is caused by the existence of social relations that are solidarity and symbiotic so that farmers cannot get out of this bond. In addition, middlemen also play a big role in forming networks with various parties, from farmers to traders. This dependency is also characterized by the lack of information known to farmers, making it difficult to access high selling prices.

Marketing Efficiency

Marketing efficiency is the ultimate goal to be achieved by all actors in the marketing system, in order to be able to produce satisfaction for producers, intermediaries and end consumers. People who are involved in the marketing of certain commodities must know whether the marketing system they are implementing is efficient or not, because producers get the goal of a business with a certain marketing system if they get higher profits and a relatively small price difference between the levels of producers and final consumers (Bahri et al., 2021).

Every marketing organization has a goal of getting a large profit so that the marketing organization determines a fairly large margin. On the other hand, the end consumer will be satisfied if the goods purchased are of high quality, but at a low price. With the existence of a Marketing Chain implemented in Aceh Province with marketing actors namely farmers as rice grain producers, collectors, millers, wholesalers and retailers as marketing institutions to distribute rice products to consumers, they always expect satisfaction from the marketing activities carried out.

Table 5. Marketing Efficiency of Each Marketing Chain in Aceh Province

Marketing Chain	Marketing Cost (Rp)	Product Value (Rp)	Marketing Efficiency (%)
I	2,950	12,000	24
II	2,750	10,300	26
II	2,600	10,700	24

From calculations using marketing efficiency analysis, it can be seen that all Marketing Chains are marketing efficient because the value of marketing efficiency for each Marketing Chain according to marketing rules is the E_p value $\leq 50\%$, the more efficient the use of marketing channels in the research area and if the E_p value $\geq 50\%$, the marketing in the research area has not reached an efficient level.

CONCLUSION AND SUGGESTION

Based on the results of the study, several conclusions can be drawn as follows there are 3 paddy Marketing Chains in Aceh province, namely: farmers - collectors - rice mills - wholesale - retail; farmers - rice mills - wholesale – retail; farmers - rice mills - retail. all Marketing Chains are already marketing efficient because the value of marketing efficiency for each Marketing Chain according to efficiency rules is less than 40%. Based on facts in the field, farmers sell directly to rice

collectors or mills to make rice. After that, mills can sell to retailers or wholesalers. The price of rice marketed is determined by the traders themselves in accordance with the amount of costs required in the marketing process by each marketing agency. Then that rice consumers are not controlled by any party. So, consumers are free to buy rice from any party they want.

The suggestion that can be given is to provide access to capital for farmers so that farmers are able to buy certified seeds which can later increase the quantity and quality of production. In addition, the attachment of farmers to intermediary traders or rice milling can be reduced. Provide counseling about marketing to farmers so as to increase farmers' knowledge about the marketing of the products they produce.

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