

## **ANALYSIS OF THE EFFICIENCY OF BROWN RICE COMMERCE IN BATANG ANAI DISTRICT, PADANG PARIAMAN REGENCY, WEST SUMATRA PROVINCE**

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### **ABSTRACT**

In the sale of produce, it is often found that farmers get a low proportion of profits and intermediary traders get a high proportion of profits. This study aims to analyze the profit efficiency of its commercial institutions. This study used a survey method by sampling brown rice farmers as many as 7 farmers by census and a sample of intermediary traders based on the involvement of commerce with farmers. This study used a proportional analysis of the profits of commercial institutions that participated in the brown rice business. From the results of the study, 2 kinds of brown rice business channels were obtained, namely 1). Consumer Merchant/Reseller Farmer, 2) Farmer Collecting merchant/Consumer Reseller. From the analysis, it is obtained that on business channel 1 the profit received is equal to the proportional profit because it is a direct business channel. In the tataniaga channel 2, the profits of the commercial institutions are disproportionate where the farmer gets the profit received lower than the proportional profit and the collector/retailer gets the profit received higher than the proportional profit, so the tataniaga channel 2 is inefficient. It is recommended to hold agricultural business analysis counseling to farmers about calculating the cost of farming, awareness to farmers that selling products is a business problem, and provide market information to farmers. →→→

**Keywords:** *brown rice, the profit received, proportional profit*

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## **INTRODUCTION**

Brown rice is a natural grain that contains anthocyanins which are a source of red color (Zhu, 2018). The advantages of brown rice compared to white rice are its nutritional content such as fiber content, essential fatty acids, and rich in complex B vitamins, especially folic acid. The high content of folic acid in synergy with fiber and essential fats causes brown rice to have an advantage over white rice (Michaelsen et al., 2009). The nutritional content of brown rice per 100 g, consists of protein 7.5 g, fat 0.9 g, carbohydrates 77.6 g, calcium 16 mg, phosphorus 163 mg, iron 0.3 g, vitamin B1 0.21 mg, and anthocyanins (Indriyani & Suyanto, 2014).

Governance is the implementation of activities and businesses that aim to flow goods and services from the point of production to the point of consumption. Agricultural commerce is an exchange process that includes a series of activities aimed at moving goods or services from farmers to consumers (Hamid, 1994).

Mubyarto (1989) said that the efficiency of the business system is to be able to hold a fair share of the overall price paid by the end consumer to all those who participate in the production and trading activities of the goods. What is meant by fair is the provision of recompense from the functions of production and commerce in accordance with their respective donations.

Agricultural commodities consumed by consumers are produced and marketed by partnerships between farmers as producers and intermediary traders as marketers (Jahroh & Meliala, 2021). Producer farmers and intermediary traders embed each of their inputs or

sacrifices to produce and market products to consumers (Batt & Cadilhon, 2007). For example, the business channel of an agricultural commodity is: farmers collecting consumer retailers. In the business channel, farmers invest 50% of inputs, 30% in collecting merchants, and 20% of retailers, so ideally each partner will also get a share of profits proportional to the inputs they each instill, namely farmers get a profit of 50% of the total profit in the commerce channel, collecting merchants get 30% and retailers 20%. A proportional profit is a profit that corresponds to the portion of input sacrificed (Lee et al., 2002). In reality on the ground is the profit that farmers and intermediary traders receive equal to their proportional profits? If it's the same, that's what's called a proportional advantage or a fair advantage. The profit received by farmers and intermediary traders is the profit they receive during the trading system of the commodities they trade → → → (Usman Yusri, 2018).

The improvement of commerce is closely related to the improvement of the efficiency of commerce systems (Chandrasekar Subramaniam, 2002). The efficiency of commerce is very necessary so that the institutions involved get the share they receive according to what they have spent in the business process so as to reduce the profit gap.

Batang Anai Subdistrict is an area in Padang Pariaman Regency that implements a brown rice farming system. This brown rice was first introduced by Mr. Marsilan who is the Chairman of the West Sumatra Farmers Association in 2010. Batang Anai Subdistrict has the potential to develop brown rice farming businesses. However, there are still few farmers who implement brown rice farming because farmers work more on white rice because white rice has a larger market and consumers than brown rice. The farmers who cultivate brown rice are still individually and alternately between each member of the farmer group (Arunrat et al., 2021).

Based on interviews with the chairman of Farmer Groups Indah Sakato and Kelompok Tani Hidayah at the time of the preliminary survey, it is suspected that there are 2 patterns of brown rice trading channels in Batang Anai District, namely (1) Farmers – consumers, (2) Farmers – collecting traders – RMU administrators – consumers. RMU (Rice Milling Unit) is a rice mill in Batang Anai District. RMU is the only rice mill in Padang Pariaman Regency that produces brown rice that already has a label. To be able to buy brown rice, consumers can directly come to the RMU (*Rice Milling Unit*) or can contact farmers. The consumers who buy brown rice mostly come from outside Nagari Kasang, from outside West Sumatra to outside Sumatra Island.

Brown rice farmers usually sell their crops in the form of grain. These brown rice farmers generally sell their grain to the RMU in the Batang Anai District area at a price set by the RMU. The price of brown rice grains sold by farmers is Rp. 6,100 / kg, or Rp. 8,700 / kg of rice while the selling price of brown rice to consumers is Rp. 20,000 / kg. From the information above, there is a very large business margin, which is IDR 11.300/Kg. From this price margin figure which is greater than the farmer's price, it can be presumed that there is a disproportionate distribution of profits obtained by farmers with traders, where farmers get a small profit while their contribution to the procurement of production and commerce is so large, namely from donations in the production process to sales, while traders make a large profit compared to donations that he sacrificed. The purpose of this study is to describe the brown rice business channels and business functions carried out by each commercial institution involved in brown rice business from Batang Anai District, Padang Pariaman Regency, and to analyze the proportionality of profits of commercial institutions that participate in the distribution of brown

rice. The benefit of this research is a consideration for farmers in marketing brown rice production and input for the government to take policies so as to improve the welfare of farmers (Reijntjes et al., 1992).

## **METHOD**

The method used in this study is the survey method. According to Nazir (2017), the survey method is a method used to investigate, dissect and evaluate the situation to obtain facts from existing symptoms and seek factual information about the social, economic, and political institutions of a group or regional scatter. The purpose of the survey method is to get an overview that represents the research area.

In this study, an investigation and observation of brown rice commercial institutions were carried out. The survey method is carried out in chains by observing the pattern of brown rice business channels, and the business functions carried out by each commercial institution involved in brown rice trading ranging from the level of sample farmers as producers to retailers.

### **Sampling Methods**

From the survey, it is known that in the area there are 2 farmer groups that work on brown rice, namely Farmer Groups Indah Sakato 5 farmers and Kelompok Tani Pelita Gunung 2 farmers. For this reason, farmers who grow brown rice are taken as a whole as respondent farmers on a census basis. For the sample of intermediate traders, the sample was taken based on his involvement in the brown rice trade with the sample farmers.

### **Data Collection Methods**

The data collected in this study are primary data and secondary data. Using a list of questionnaires and interviews on the part of farmers and respondent traders. The data period taken is brown rice farming data for the growing season of November 2019-February 2020. The primary data collected are:

1. The primary data from farmers are the identity of farmers, the cost of farming and the cost of governance, the production of production prices, and information on the management of brown rice. Data from sample traders include the identity of traders, price buy and price of brown rice, cost tataniaga as well as brown rice business information
2. Secondary is data obtained from literature derived from relevant institutions or agencies.

### **Observed variables**

The variables observed to achieve the objectives of this study are:

- a. Agricultural costs: farm costs, commercial costs, amount of production, selling price, receipts, and profits of the farming business
- b. Intermediary traders, commercial fees, purchase price and selling price, receipts and profits of commerce.
- c. Overview of brown rice trading channels

**Data Analysis**

To answer the first question, namely describing the brown rice tataniga channel in Batang Anai District, Padang Pariaman Regency, a descriptive analysis was carried out. From the primary data, a business channel will be obtained starting from the farmer level to other commercial institutions involved,

To answer the second question, namely analyzing the efficiency of commerce using an analysis of the proportionality of profits of commercial institutions. A proportional profit is an efficient profit in commerce.

1). Profit received by Farmers = Revenue – (Total Cost of Farming + Cost of Farming)

2). Profit received by Traders = Merchant acceptance – Total cost of trading

3). Proportionality of Advantages:

a). Proportionality of Farmers' Profits  $\equiv$  Profits received by farmers =  
Farmers' Proportional Profits

b). Proportionality of Trader's Profit  $\equiv$  Profit received by Trader =  
Traders' Proportional Profits

Or:

a). % Profits received by Farmers = % Costs Sacrificed by Farmers

b). % Profit received by the Trader = % Fees that the Trader Sacrifices

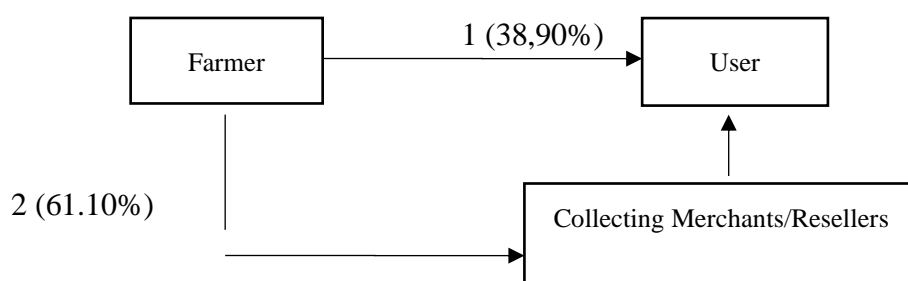
**RESULTS AND DISCUSSION**

**Brown Rice Tataniaga Channel**

To see the brown rice business channel in Batang Anai District, Padang Pariaman Regency, is carried out by tracing the business activities carried out from the farmer level to the consumer. From the results of the observations made, there are 2 patterns of brown rice business channels, namely:

Channel 1: Farmers/merchants of Consumer  $\rightarrow$ retailers

Channel 2: Farmer Collecting Merchants/Consumer Retailers  $\rightarrow \rightarrow$



**Figure 1.** Brown Rice Business Channel Scheme in Batang Anai District1

**Proportionality Analysis of Profits of Tataniaga Institutions**

**Tataniaga Channel 1.**

Tataniaga channel 1 brown rice is a direct business channel where farmers double as the sword of retailers who distribute brown rice directly to consumers. For that the profit received is also a proportional profit.

**Tataniaga Channel 2.**

In this tataniaga channel 2, 2 commercial institutions are involved, namely farmers and collectors/retailers who deliver brown rice to consumers.

In Table 1 of the ta tataniaga 2 channel, it can be seen that the profit received by farmers of Rp. 4,514.98/kg of rice and the trade collectors/retailers of Rp. 8,345.95/kg of rice is not equal to the proportional profit, namely for farmers Rp. 5,791.28 /kg of rice, pe collector/retailer trade Rp 7,069.65/kg. It can be seen that the farmer gets profit he receives is less than the proportional profit he should have received and the collecting merchant/retailer gets the profit he receives is greater than the proportional profit he should have received a. Also the percentage of profit received by farmers (35.11%) is smaller than the percentage of costs incurred by farmers, which is 45.03%.

The percentage of profit that the collecting merchant/retailer receives (64.89%) is greater than the percentage of costs it incurs (54.97%). It can be said that the profits that farmers receive are disproportionate and the profits that collectors/retailers receive are also disproportionate. Based on the percentage of profit received from proportional profit, it can be seen that the farmer receives 77.96% of the proportional profit he should have received and the collecting merchant/retailer gets the profit he received 118.05% of the proportional profit he should have received. It also shows that farmers get profits they receive below 100% and collectors/retailers get profits they receive above 100%. Some of the farmers' profits that farmers have to receive turn to the benefits that collectors/retailers receive. It can be concluded that business channel 2 does not provide proportional benefits to each of the existing commercial institutions of this channel, so this business channel based on profit sharing is an inefficient channel. From the results of this analysis, it can be seen that farmers are weak in determining the selling price of their brown rice with collectors/retailers.

**Table 1.** Proportionality of Profits of Farmers and Intermediary Traders in the Rice Trade System  
Red from Batang Anai District, Padang Pariaman Regency

No		Tataniaga Channel 1	Tataniaga Channel 2		Sum
		Farmer/Pdgng Reseller	Farmer	Pdgng Collector/Reseller	
1	Cost (Rp/kg)	2.952.09	1.939,76	2.368.35	4.308,11
2.	Cost Percentage (%)	100,00	45,03	54,97	100,00
3.	Profit Received (Rp/kg)	16.241.70	4.514,98	8.345.95	12.860,93
4.	Profit share received (%)	100,00	35,11	64,89	100,00
5.	Proportional Profit (Rp/kg)	16.241.70	5.791,28	7.069,65	12.860,93

6.	Profit share received from proportional profit (%)	100,00	77,96	118,05
7.	Profit Proportionality	-	Dispropor tionate	Disproportionate

Similar results were also previously obtained by Iriyani (2010) in his research entitled Analytical of Patchouli Oil Business from Mara Village, South Sipora District, Mentawai Islands Regency, West Sumatra Province. In this patchouli oil trading system, 2 tataniaga channels are found, namely in the tataniaga channel 1: Inter-Regional Merchant Farmers (PAD) Exporters and tataniaga channels 2: Regional Collecting Merchant Farmers (PPD) Inter-Regional Traders (PAD) Exporters. From these two tataniaga channels, farmers in business channel 1 get 96.11% of their proportional profit, while inter-regional traders get 121.52% profit and exporters 108.04% of their proportional profit. In business channel 2, farmers get 94.95% of profit from their proportional profit Regional Collecting Traders get 114.99% of profit, Inter-Regional Traders 121.64%, and Exoprtir 108.16% of their respective proportional profits. It can be seen that the farmer gets a profit below the proportional profit he should receive and PPD and PAD get a profit above the proportional profit he should receive. For this reason, it can be said that the tataniaga channel 2 of brown rice is inefficient. →→→→→

Shalahuddin & Hafidh M (2018), in their research Analysis of Cucumber Trading Efficiency from Kuranji District, Padang City, West Sumatera Province also found disproportionate profits in farmers, and instead, farmers lost and collecting traders and retailers got profits above their proportional profits. Of the 2 business channels found in commerce channel 1: Consumer Retailer Merchant Farmers, the farmer gets a profit received -23.69% of his proportional profit, and the Retailer Merchant gets a profit of 224.04% of his proportional profit. In business channel 2: Farmer Merchant Collectors Consumer Retailers, farmers get a profit of -6.08% of their proportional profits, Collecting Merchants get 101.17% profit and Retailers 155.82% of each of their proportional profits. →→→→→

Farmers' weakness in transacting the selling price of red rice can be caused by:

1. Farmers do not know market information about the price of brown rice so farmers entrust the decision of the selling price to collectors/retailers.

2) The collecting trader/retailer is a respected person of the farmer because the collecting trader/retailer is a) the administrator of the farmer group of which the farmer is a member, b) the administrator of the RMU the only rice mill in this area where the farmer grinds his red rice, and c) the collector/retailer merchant often provides farming assistance to the farmer in his farming business.

3) Farmers don't know how to calculate farm profits. Farmers often feel that they have made a profit in selling their products if the price of their products is already in excess of the costs they pay. Generally, farmers only calculate the costs paid, without calculating the costs that are taken into account.

## CONCLUSION

There are 2 kinds of brown rice business channels from Batang Anmai District, Padang Pariaman Regency, namely: 1. Consumer Producer Farmers, 2. Farmers Producers Collecting Merchants./→→Consumer Retailers.→ The amount of brown rice that passes through the Tataniaga I channel is as much as 3 8.90% tataniaga channel 2, amounting to 61.10%.

Commerce channel 1 is a direct business channel that only involves 1 commercial institution, namely farmers who also function as retailers where the profit they receive is equal to the proportional profit. In tataniaga channel 2, there are two commercial institutions involved, namely farmers and collectors/retailers. The farmer gets the profit he receives higher than his proportional profit and the collector/retailer also gets the profit he receives lower than his proportional profit. The profits received by farmers and collectors/retailers on tataniaga channel 2 are disproportionate making commerce inefficient.

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