

# Income Analysis of Rice Milling Business in Rantau Panjang Village (A Case Study of Mr. M. Nahar) Tanah Grogot District, Paser Regency

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**Abstract:** This study aims to analyze the income of the rice mill business in Rantau Panjang Village, Tanah Grogot District, Paser Regency, and to determine the Total Cost, Income and Revenue of the Rice Milling Business in Rantau Panjang Village, Tanah Grogot District, Paser Regency. This research was conducted since March 2021, starting from the initial observations, interviews, documentation, and questionnaires until April 2021 in Rantau Panjang Village, Tanah Grogot District, Paser Regency. The results of the study showed that the average total cost spent by rice milling business in Rantau Panjang Village, Tanah Grogot District, Paser Regency per day was IDR 41,217, -. The average revenue received by the rice milling business in Rantau Panjang Village, Tanah Grogot District, Paser Regency for 2 (two) weeks production was IDR 1,780,000. The average income received by the rice milling business in Rantau Panjang Village, Tanah Grogot District, Paser Regency for 2 (two) weeks of production was IDR 766,628.05.

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## I. Introduction

Indonesia is an agricultural country whose main livelihood comes from agricultural land. This condition is associated with the geographical location of Indonesia which lies on the equator, so that weather, soil and other resources in all areas in Indonesia have high potential to be developed in the agricultural sector, especially rice.

Rice is the main food crop in Indonesia because most of the people consumes rice as a source of carbohydrates. Until now, the food needs for rice have not been fulfilled, the main reason is low production of rice in Indonesia and accompanied with the low post-harvest rice. As a result, the loss of crop yields is still quite high and the quality is still low. These conditions need to be corrected immediately with the correct post-harvest. Tanah Grogot is one of the districts in Paser Regency which produces basic needs (rice) as a superior product with the largest land area in 2016 was 1,643 Ha, a productivity of 44.25 Kw and a production of 6,826 tons. Details can be seen in table 1.1 below:

**Table.1.1** Data of Productivity and Production 2015-2019 in Tanah Grogot District

No	Year	Land area (Ha)	Productivity (Kw/Ha)	Productivity (ton)
1	2015	1.033	43.90	4.535
2	2016	1.643	44.25	6.826
3	2017	1.418	46.44	6.584
4	2018	1.009	39.85	4.378
5	2019	1.156	40.81	4.148

Sumber : Dinas Pertanian Kab. paser 2019 Source: Department of Agriculture Paser Regency. 2019

According to PP No. 65 of 1971 concerning the Huller rice mill and rice milling company, Rice milling is a set of devices that is driven by engine power to grind grain into rice. The development of science and technology play a role in producing variant types of rice mills. The rice milling unit is the gathering center between production, postharvest, processing and marketing of grain or rice. Thus, it is an important link in the national rice supply which is required to contribute to the supply of rice, both in terms of quantity and quality to support national resilience, rice mill has an important role in the rice agribusiness system in Indonesia, which is

reflected in the large number of rice mills with evenly distribute in all rice production centers in Indonesia (Hardjosentono, M. 2000).

Nowadays, the number of rice mills in rural areas is sufficient, especially in the Paser Regency area. This can be proved from the number of existing rice mills compared to the level of rice production in this area. In the development of knowledge and technology, we are familiar with various kinds of machines, both in the rice milling machine, grain cleaning, rice husk breaker, polisher, and rice siever (grader). In this case, these machines contribute in the production process and increase the yield.

Rice milling also determines the availability of food (rice), the quality of food or rice consumed by the community, price levels, farmers' incomes and consumer price levels and also the employment in rural areas. Moreover, it can be an embryo for agricultural industrialization in rural areas. Rice mills are collected in one site so that they can play a full role in increasing rice supply either in regional and national scope. Rice milling facilitates coordination and development as well as cooperation between stakeholders and the government.

Rice cultivation in Paser Regency is spread over several sub-districts, namely Paser Belengkong District, Kuaro District, Tanah Grogot District, Longikis District and Longkali District. Each area has different planted area, harvested area and production yield. Rice is more profitable to be sold than grain, but due to limited facilities and infrastructure, finally some farmers took the initiative to build a rice mill in Rantau Panjang village.

## **II. Material And Methods**

### **2.1 Research Time and Location**

This research was conducted from March to April 2021. Starting from the site survey, interviews, data collection at the rice mill owned by Mr. M. Nahar in Rantau Panjang Village, Tanah Grogot District, Paser Regency (Case Study of Mr. M. Nahar). The research was conducted in the rice mill owned by Mr. M. Nahar's which was still operated.

### **2.2. Data Types and Sources**

Types of data used in this study include:

- a. Primary data which was obtained from direct observation and interviews with Mr. M. Nahar, the owner of a rice milling business. Data was collected by using a list of questions (questionnaires) that had been provided.
- b. Secondary data, which was obtained indirectly, from internet and related institute, such as the Agriculture Service, and the Rantau Panjang Village office.

### **2.3 . Data collection technique**

Data was collected by following method:

- a. Observation, namely by conducting direct observation, in which researcher directly reviewed the research location.
- b. Interview, namely by conducting direct interviews with the research object
- c. Documentation, namely researcher was documenting photos regarding research activities.
- d. Questionnaire, namely a list of questions provided to respondents to obtain research data.

### **2.4. Research location**

The research was conducted in Rantau Panjang Village, Tanah Grogot District, specifically in the rice milling business owned by Mr. M. Nahar because the rice milling business that has survived until now only belongs to Mr. M. Nahar. In addition, there is no other active rice mill in Rantau Panjang Tanah Grogot Village, Paser Regency.

### **2.5. Data analysis technique**

#### **2.5.1. Qualitative Descriptive Analysis**

This analysis aims to provide a general description regarding the object, such as education level, gender, name, occupation, religion, number of family dependents, age, village origin, telephone number, and land area.

#### **2.5.2. Quantitative Analysis**

Quantitative analysis is the calculation of numbers obtained from the research and then processed and analyzed with following calculations:

Cost Analysis

To calculate the cost incurred in an activity. First, calculate each component of fixed costs and variable costs. Then, sum the fixed costs and variable costs as the cost of the activity. These costs can be expressed in terms of total costs or basic costs.

a. Fixed Costs

Fixed costs, are business expenses that are not dependent on the level of goods or services produced by the business. These expenses are time related, such as salaries or rent that are paid monthly, and also known as additional expenses.

$$\text{AFC} = \text{TFC}/\text{Q}$$

Where:

Q = Production unit

AFC = Average Fixed

TFC = Total Fixed Cost

b. Total cost

Total cost is the actual cost incurred by a business to produce a certain level of output.

$$\text{TC} = \text{FC} + \text{VC}$$

Where:

TC = Total Cost

FC = Fixed Cost)

VC = Variabel Cost

c. Variable costs

Variable costs are costs which change in proportion to the quantity of production volume or sales. The quantity of product increases by the change in quantity multiplied with the variable cost per unit.

$$\text{AVC} = \text{TVC}/\text{Q}$$

Where :

Q = Production Unit

AVC = Average Variabel Cost

TVC = Total Variabel Cost

d. Business revenue

Business revenue is the total income received by producers or farmers from production activities that have gained profit and have not been deducted by costs incurred during production.

$$\text{TR} = \text{Y} \cdot \text{PY}$$

Where:

TR = Total Revinue

Y = Earned production (Kg)

PY = Selling price (Rp)

e. Business Income

Business income is income derived from the main activities carried out by the company.

$$\text{PD} = \text{TR} - \text{TC}$$

Where:

PD = Business revenue

TR = Total Revenue

TC = Total Cost

f. Depreciation

Depreciation is the allocation of an amount of assets that can be depreciated over its estimated useful life.

$$\text{Depreciation} = \text{HP} - \text{NS} / \text{N}$$

Where :

HP = Acquisition cost

NS = Residual value

N = Estimated Useful Life

### III. Result

The financing of Rice Milling Business owned by Mr. M. Nahar includes Fixed Costs and Variable Costs which play an important role in the activities of rice milling business process from beginning to end. Fixed costs, are amount of costs which are unchanged when the quantity of output changes. Variable costs could affect the quality of production. Variable costs are amount of costs which change in proportion to the quantity of production

#### 3.1. Fixed Cost

Fixed costs are costs used in the rice milling process that do not affect the amount of rice milling production. Fixed costs in rice milling business owned by Mr. M. Nahar in Rantau Panjang Village include depreciation costs for production equipment or supplies. Tools or equipment used in running their business were Dongfeng Machines, waste Oil, Rolls, Sieves, Klender Belts, Rubber Klenders, Polisher, Hullers, Scales, Drums, Shovels, Fans, Labor, water pumps, and electricity.

Depreciation is the allocation of an amount of assets that can be depreciated over its estimated useful life. The depreciation cost of these tools and equipment was calculated using the straight-line method, in which the cost was calculated from the purchase value subtract with residual value (salvage) then divided by the technical age. The details regarding the depreciation of tools/equipment used by Mr. M. Nahar during one production period, is shown in Table 3.1.

Table 3.1 Average Depreciation Cost of Equipment/Equipment and Labor

No	Description	Depreciation value (IDR)
1	Balance	502,28
2	Drum	680,14
3	Shovel	79,45
4	Electricity	3.333,33
5	Dongfeng machine	2.602,74
6	Water pump	698,63
7	Roll	739,73
8	Huller	4.219,18
9	Sieve	1.550,00
10	Klender Belt	2.000,00
11	Clender Rubber	410,96
12	Polisher	753,42
13	Fan	519,13
14	Waste oil	166,67
15	Labor	600.000,00
<b>Total Fixed Cost</b>		<b>618.256</b>
<b>Average</b>		<b>41.217</b>

*Source: Primary Data Processed(2021)*

Table 3.1 shows that fixed cost of rice milling owned by Mr. M. Nahar in the 2 (two) week production process comes from the depreciation costs of tools or equipment and electricity was IDR 618. 256, - with an average of IDR 41,217,-

#### 3.2. Variabel Cost

Variable costs in the Rice Milling business in Rantau Panjang Village owned by Mr. M. Nahar, were production engine fuel and sacks.

Table 3.2 Average Rice Milling Variable Costs within 2 weeks in Rice Mill Production Owned by Mr. M. Nahar

No	Description	Total (IDR)
1	Diesel fuel	255.000
2	Sacks	181.333
<b>Total</b>		<b>436.333</b>

*Source: Primary Data Processed(2021))*

Based on Table 3.2, the total variable cost of Mr. M. Nahar's rice milling business in Rantau Panjang Village is IDR 436,333, within 2 (two) weeks of production.

### 3.3. Total Cost

Biaya total dalam biaya usaha penggilingan padi merupakan hasil penjumlahan total biaya tetap dan total biaya variabel yang dikeluarkan oleh pengusaha penggilingan padi. Berikut ini merupakan total biaya yang dikeluarkan oleh usaha penggilingan padi dapat dilihat pada Tabel 3.3.

The total cost of rice milling business is the sum of total fixed costs and total variable costs incurred by the rice milling owner. Table 3.3 describes the total cost incurred by the rice milling business.

Table 3.3. The Average Total Cost of Mr. M. Nahar's Rice Milling Business in Two Weeks of Production in Rantau Panjang Village, Tanah Grogot District, Paser Regency

No	Description	Total (IDR)
1	Total Fixed costs (TFC)	577.038,61
2	Total Variable Costs (TVC)	436.333,33
<b>Total Costs (TF + TVC)</b>		<b>1.013.371,94</b>

Source: Primary Data Processed(2021))

Based on Table 4.5.3, it can be seen that the rice milling business incurred a fixed cost of IDR 577,038.61 and variable costs IDR 436,333.33 within 2 (two) weeks of production. This shows that the largest cost allocation is in total costs. which is IDR 1,013,371.94.

### 3.4. Revenue Analysis

Total Revenue (Total Return) in rice milling business is the multiplication between the amount of production and the price prevailing at that time. This analysis was used to determine the total revenue from rice milling business owned by Mr. M. Nahar in Rantau Panjang Village.

Table 4.5.4 Total Revenue of Rice Milling Business in 2 (two) weeks owned by Mr. M. Nahar in Rantau Panjang Village.

Total Revenue (TR)		
Rice (kg)	Price Perkg (Rp)	Total (Rp)
178	10.000	1.780.000
<b>Total Revenue</b>		<b>1.780.000</b>

Source: Primary Data Processed(2021))

Based on table 4.5.4., the production of rice milling business obtained by the entrepreneur within 2 (two) weeks of production was 178 kg, the prevailing price for each kg of milled rice when this study was conducted was IDR 10,000.00, and the total revenue from the milling business rice was IDR 1,780,000,-

### 3.5. Income analysis

Researcher used income analysis to find out the amount of income which was received by rice mill owner. Income is the difference between the revenue received by the entrepreneur and the total costs incurred. Based on this analysis, the entrepreneur can find out how much income he gets while running his business. The income value can be seen in the following table:

Table 4.5.5 Average Rice Milling Business Income within 2 (Two) Weeks from Rice Mill owned by Mr. M. Nahar in Rantau Panjang Village, Tanah Grogot District, Paser Regency.

No	Description	Total (Rp)
1	Total Revenue (TR)	1.780.000,-
2	Total Costs (TC)	1.013.371,94
<b>Total Income (TR-TC)</b>		<b>766.628,05</b>

Source: Primary Data Processed(2021))

Based on table 4.5.5. the owner obtained income from the rice milling business during 2 (two) weeks was IDR 766,628.05.

#### **IV. Discussion**

##### **The Total Cost in Rice Milling Business Owned by Mr. M. Nahar, Rantau Panjang Village, Tanah Grogot District, Paser Regency**

The income analysis in Rice Milling Business owned by Mr. M. Nahar aims to determine the value obtained from production activities. The income analysis can be determined by identifying the revenue and expenses components of Mr. M. Nahar's rice milling business in Rantau Panjang Village, Tanah Grogot District, Paser Regency.

In this study fixed costs are defined as costs used in the rice milling process that did not affect the quantity of rice milling. Fixed costs in the rice milling business in Rantau Panjang Village include depreciation costs for production equipment or supplies.

The depreciation cost of these tools and equipment was calculated using the straight-line method based on subtraction of purchase value with residual value (salvage) then divided by the technical life. The detail depreciation of tools/equipment in one production period were analyzed in this study. The fixed cost of the rice mill owned by Mr. M. Nahar in the 2 (two) week production process comes from the depreciation of tools or equipment and electricity, which was IDR 618.256,- with an average of IDR 41,217,-

The variable costs in Rice Milling business owned by Mr. M. Nahar in Rantau Panjang Village, include the production facilities for engine fuel (diesel) and sacks with a total variable cost of IDR 436,333, within 2 (two) weeks of production.

The total cost in this Rice Milling Business was IDR 1,013,371.94, which was obtained from the sum of total fixed costs of IDR 577,038,61 and the total variable cost of IDR 436,333 issued by rice mill entrepreneurs for 2 (two) weeks of production.

##### **Revenue from Rice Milling Business owned by Mr. M. Nahar, Rantau Panjang Village, Tanah Grogot District, Paser Regency**

Rice Mill owned by Mr. M Nahar's is familiar in Rantau Panjang Village, this mill is located in Rantau Panjang Village, part of Rt 03, on the side of the highway in Rantau Panjang Village. Location is important factor when set up a business, especially to determine the rice milling business.

The high revenue of Mr. M. Nahar's rice milling business, was determined by the length of a business which has been run around 17 years.

Obtaining long experience in agriculture and providing excellent services which always prioritize friendliness and courtesy to its customers. Moreover, Mr. M. Nahar also provided motivations for young people who grind rice in their place to encourage them not to be ashamed as farmers.

According to Priyandika Nurseta, (2015), the duration of a business can rise business experience, which can affect someone behavior and productivity (professional abilities or expertise). Someone who engages in the small and medium business field for a longer time, will improve his tastes or preferences. The longer time someone running the small and medium business sector, then he will have more experiences to understand consumer tastes or behavior which can develop production, price and quantity produced.

Based on the results of this study about a case study of Rice Milling Business owned by Mr. M. Nahar in Rantau Panjang Village, Tanah Grogot District, Paser Regency in 2 (two) weeks, the production of the rice milling business obtained an average production of 178 kg, the price for each Kilo Gram (Kg) of milled rice at the time of this study was IDR 10,000, then the average income from rice milling business was Rp. 1,780,000, - in 2 (two) weeks.

##### **The total income from the rice milling business belonging to Mr. M. Nahar, Rantau Panjang Village, Tanah Grogot District, Paser Regency**

The analysis is used to find out how much income was received by rice mill entrepreneurs. Income is the difference between the revenue received by entrepreneur and the total costs incurred. Based on this analysis, the entrepreneur will find out his profit income while running his business.

Based on the investigation results of Rice Milling Business owned by Mr. M. Nahar, one of the factors that affect the profits was a strategic place which can be found easily by people which is on the road side and is well known to the people of Rantau Panjang Village. Thus, it becomes an advantage for the owner of rice milling business, that is managed by Mr. M. Nahar.

As time goes by now many people build rice mills. Almost every village has a rice mill, some villages have 2 or even 3 rice mills, so the customers who used to grind rice at Mr. M. Nahar's place becomes decrease. But, this challenge didn't dampen his enthusiasm to keep running his business.

The profit income obtained by Mr. M. Nahar in rice milling business was calculated from the difference between revenues and the total costs. The number of incomes obtained by Mr. M. Nahar in his rice milling business for 2 (two) weeks is also influenced by the number of milled grains per day. The analysis results of rice milling business owned by Mr. M. Nahar in Rantau Panjang Village, Tanah Grogot District, Paser

Regency, show that in a month the revenue was IDR 1,780,000, -, total cost was IDR 1,013,371.94 and profit income was IDR 766,628.05.

## V. Conclusion and Recommendation

### Conclusion

The following conclusions can be drawn from the income results of rice mills in Rantau Panjang Village, Tanah Grogot District, Paser Regency,:

1. The average total cost used per day by the rice milling business in Rantau Panjang Village, Tanah Grogot District, Paser Regency was IDR 41,217,-
2. The total revenue received for 2 (two) weeks by the rice milling business in Rantau Panjang Village, Tanah Grogot District, Paser Regency was IDR 1,780,000
3. The average income received for 2 (two) weeks by the rice milling business in Rantau Panjang Village, Tanah Grogot District, Paser Regency was IDR 766,628.05.

### Recommendation

These findings suggest several courses of action:

1. To attract customers to grind their grain in the rice mill owned by Mr. M. Nahar located in Rantau Panjang Village, Tanah Grogot District, Paser Regency.
2. Repairing the milling facilities and improve service to consumers.
3. For operational effectiveness, there should be a dedicated workforce for the rice milling business in Rantau Panjang Village, Tanah Grogot District, Paser Regency.

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