

INCOME ANALYSIS AND BUSINESS CONSTRAINTS IN THE KELILING RICE REFINERY IN GAMPONG MEUNASAH BARO MUARA BATU DISTRICT NORTH ACEH DISTRICT (Case Study: The Efforts of Mr. Saiful Mahdi)

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Abstract

The presence of mobile rice milling machine really helps the society in grinding their grains. However, the income earned on the mobile rice milling business is erratic, often many times slightly. This research aims to find out the income earned and the obstacles in the mobile rice milling business of Mr. Saiful Mahdi in Meunasah Baro Village, Muara Batu Sub-district, Aceh Utara Regency. This research uses descriptive quantitative data analysis methods to look at the income that is received, and descriptive qualitative to see business constraints. The results showed that the total cost is IDR 127,785,000/year, gross revenue is IDR 768,055,500/year, and net income is IDR 307,392,750/year. The value of R/C Ratio amounted to 6.01 and B/C Ratio are 2.41 shows that Mr. Saiful Mahdi's mobile rice milling business deserves to be kept. A common constraint encountered there is 4.

Keywords: *Mobile Rice Milling, Business Revenues, Business Constraints.*

1. INTRODUCTION

Rice (*Oryza Sativa L.*) is a plant that has a very important role in human life in the world. Rice plants have been around for thousands of years, and have become a staple food for the community, including in Indonesia. Rice is the main source of carbohydrates for the world's population so that additional production is needed to meet the higher food needs (Suparyono, 1997). Post-harvesting of rice is the stage of activities which include harvesting (harvesting) threshing, drying, packaging, storage and processing into rice to be marketed. Postharvest handling aims to reduce yield losses, reduce damage levels, and increase the shelf life and usability of commodities to obtain added value (Setyono, 2010). The presence of mobile rice milling machines is very helpful for the community in grinding their rice. Mobile rice mill is a postharvest processing technology for rice. This rice mill is a modified car equipped with a rice milling machine (Susiloningsih, 2012). Muara Batu District is one of the districts that has rice production. This supports the presence of mobile rice milling businesses to facilitate the community's rice milling process. In Gampong Meunasah Baro there are 7 owners of mobile rice mill machines. Some have only one machine that is operated by themselves and some even have up to five mobile rice milling machines that are operated by workers.

Machine presence mobile rice mills are increasingly developing and varied. However, the rice harvest period that does not occur throughout the year will affect the income received. Income earned during the main harvest season will certainly be different from income during the non-harvest season. Weather also greatly affects the income earned. Income earned when the weather is sunny will be different from income during the rainy season or overcast conditions. Even so, the owners of this mobile rice mill business have survived to this day. This is also felt by Mr. Saiful Mahdi, who has been running a mobile rice mill business for a long time in Gampong Meunasah Baro, Muara Batu District, North Aceh Regency. This study aims to analyze income and business

constraints at Mr. Saiful Mahdi's mobile rice mill in Gampong Meunasah Baro, Muara Batu District, North Aceh District.

2. IMPLEMENTATION METHOD

This research was conducted in Gampong Meunasah Baro, Muara Batu District North Aceh District. The research area is determined sequentially purposive (intentional) based on the consideration that the research location is one of the areas where there are many mobile rice milling machines. The data collected in this study consisted of primary data and secondary data. Primary data was collected by direct observation (observation) and direct interviews with Mr Saiful Mahdi using a questionnaire. While secondary data were obtained from relevant literature, such as related offices and agencies such as the Central Statistics Agency, Agriculture Service, Agricultural Extension Agency, research journals, books, the internet, and other literature related to this research. The method used is a method of quantitative analysis and descriptive qualitative. Quantitative analysis used to calculate gross income (revenue) used the formula (Arsyad, 2000):

$$TR = P \times Q$$

Information :

TR = Total Revenue

P = Selling Price

Q = Total Products

To calculate net income (profit) use the formula:

$$\pi = TR - TC$$

Information :

π = Profit (Total Profit)

TR = Total Revenue (Total Revenue)

TC = Cost of Production (Total Cost)

To determine the level of income using the following formula:

$$R/C = \frac{\text{total gross income (Rp)}}{\text{total cost (Rp)}}$$

With the following decision criteria:

1. If $R/C > 1$ the business is feasible.
2. If $R/C = 1$ business return on investment
3. If $R/C < 1$ the business is not feasible.

B/C ratio is a measure of comparison between profits and total costs. Mathematically it can be formulated as follows:

$$B/C = \frac{\text{total net income (Rp)}}{\text{total cost (Rp)}}$$

With the following decision criteria:

1. If $B/C > 0$ the business is profitable.
2. If $B/C = 0$ business return on investment
3. If $B/C < 0$ the business is not profitable.

3. RESULTS AND DISCUSSION

Table 1. Details of Depreciation Costs

Description	Vol	Unit	Unit price	Amount (IDR)	Economic Age (Years)	Equipment Depreciation (Rp / Year)
rice mill	5	units	15,000,000	75,000,000	10	7,500,000

machine							
cost of assembling a mobile rice mill	5	units	8,000,000	40,000,000	10	4,000,000	
Scales	5	units	200,000	1,000,000	5	200,000	
Drum	20	Fruit	20,000	400,000	1	400,000	
Pan	5	Fruit	10,000	50,000	1	50,000	
Bag	15	Sheet	2,000	30,000	0.5	60,000	
Tarpaulin	5	Sheet	35,000	175,000	1	175,000	
Filter	5	Sheet	200,000	1,000,000	0.5	2,000,000	
Amount				117,655,000	29	14,385,000	
average				14,706,875	3,6	1,798,125	
Min				30,000	0.5	50,000	
Max				75,000,000	10	7,500,000	

Source: Primary Data (processed), 2018

Table 2. Details of Daily Variable Costs

Description	Physical amount per year	Unit	IDR / Unit	Total (Rp) per year
Solar	11,550	Liter	6,000	69,300,000
Consumption	1,650	Day	20,000	33,000,000
Amount				102,300,000

Source: Primary Data (processed), 2018

Table 3. Details of Monthly Variable Costs

Description	Physical amount per year	Unit	IDR / unit	Total (Rp) per year
Oil	300	Liter	30,000	9,000,000
Fan belt	60	Sheet	35,000	2,100,000
Amount				11,100,000

Source: Primary Data (processed), 2018

Table 4. Total Cost Details

Details	Amount (IDR)
Fixed cost	<u>14,385,000</u>
Monthly variable costs	11,100,000
Daily variable costs	102,300,000
Amount	127,785,000

Source: Primary Data (processed), 2018

Table 5. Gross income of mobile rice mill business

The month-	Total Acceptance of Rice (Kg)	Price of Rice / Kg (IDR)	Gross Income (Rp)
1	7,320	8,500	<u>62,220,000</u>
2	7,200	9,000	<u>64,800,000</u>
3	7,244	9,500	<u>68,818,000</u>
4	7,305	9,500	<u>69,397,500</u>
5	7,429	9,000	<u>66,861,000</u>
6	7,647	8,500	<u>64,999,500</u>
7	7,631	8,500	<u>64,863,500</u>
8	7,413	8,500	<u>63,010,500</u>
9	7,449	8,500	<u>63,316,500</u>
10	7,407	8,000	<u>59,256,000</u>
11	7,149	8,500	<u>60,766,500</u>
12	7,029	8,500	<u>59,746,500</u>
Amount	88,223	104,500	768,055,500
Average	7,352	8,708	64,004,625
Min	7,029	8,000	59,256,000
Max	7,647	9,500	69,397,500

Source: Primary Data (processed), 2018

Table 6. Net income in mobile rice mill business

Details	Income Dirty	Daily Variable Cost	Profit Sharing (50:50)	B. Fixed & B. Monthly Variable	Total number
Net income	<u>768,055,500</u>	102,300,000	332,877,750	25,485,000	307,392,750

Source: Primary Data (processed), 2018

Table 1 shows that the fixed costs incurred in this business consist of the highest costs, namely the cost of a rice mill machine of IDR 7,500,000/year and the cost of assembling a mobile rice mill of IDR 4,000,000/year. . The total fixed costs in this business amount to IDR 117,655,000 with a total depreciation expense per year of IDR 14,385,000. Based on table 2 it can be seen that the average costsolarissued inm satu year for 5 machines that is Rp69,300,000with an average diesel fuel consumption per day of 7 liters per mobile rice mill machine.Average cost kconsumptionissued inm satu year for 5 machines that is Rp33,000,000with averageconsumption costsper daynamely Rp. 20,000 for one mobile rice mill with 2 workerson every satumachine.Total daily variable costs incurredinm satu yearsis IDR 102,300,000.

Based on table 3 it can be seen that the average cost of oil spent inm satu year for 5 machines in the amount of IDR 9,000,000 with the average oil used inm satu month ie 5 liters per mobile rice mill machine.In each mobile rice mill machine, 3 fan belts are used to run the machine. This rope breaks easily, so it is replaced one piece per month. The price for this fan rope is IDR 35,000 per sheet. with the average cost of the fan belt incurred inm satu year for 5 machines that is IDR 2,100,000.Total variable costsmonthlywhich are issuedinm satu yearsis as bigIDR 11,100,000. Based on table 4, the total costs incurred in this mobile rice mill business amounted to Rp127,785,000. Bcosts incurred every day is Rp102,300,000, and the costs incurred each month are Rp11,100,000, and the fixed costs are Rp14,385,000.

Based on table 5 it can be seen that the total rice receipts in Mr. Saiful Mahdi's mobile rice mill business for one year amounted to 88,223 Kg with an average monthly rice receipt of 7,352 Kg. This rice is then sold at an average price of IDR 8,708/Kg. The total income from the sale of this rice is Rp768,055,500. Based on table 8 it can be seen that the net income received by Mr. Saiful Mahdi was obtained from the reduction between gross income and daily variable costs (768,055,500-102,300,000=665,755,500) then divided by 2, one part for Mr. Saiful Mahdi and one part for workers (665,755,500 : 2 = 332,877,750) after which it is reduced again by fixed costs and monthly variable costs (332,877,750 -25,485,000 =307,392,750). So, the net income received from Mr. Saiful Mahdi's mobile rice mill business is Rp307,392,750/year. The R/C Ratio value is 6.01. The R/C Ratio value which is greater than one (6.01> 1) indicates that the mobile rice mill business is feasible with a gross income of 6.01 times the costs incurred or in other words, for every Rp. 1 spent, a gross income of Rp. 6.01 will be obtained. The B/C Ratio value is 2.41. A B/C Ratio value that is greater than zero (2.1 > 0) indicates that a mobile rice mill business is feasible to operate with a net income of 2.41 times the costs incurred or in other words, for every 1 Rp. issued will obtain a net income of IDR 2.41.

3.1 Mobile Rice Factory Business Constraints

In general, there are 4 obstacles faced in this mobile rice mill business.

1. Weather

If the weather is sunny, it is likely that the income received will be high because many people are drying the rice, so many need the services of mobile rice mills. However, if the weather is cloudy and it is the rainy season, it will be difficult for mobile rice mills to operate and it will be difficult to get customers who want to grind the grain because there is little to dry the rice and little dry grain that can be milled. During the rainy season, these mobile rice mills cannot operate every day, they only operate when the weather is sunny, so their chances of being able to operate and earn income during the rainy season are minimal.

During the rainy season, the number of working days for this mobile rice mill will be limited because it cannot operate during rains. The operating schedule is also uncertain, depending on weather conditions. However, the income earned when the weather is sunny in the rainy season will be more because the people dry their rice in large quantities at once to anticipate rain so that their rice supply remains sufficient. If during the dry season, this business operates regularly every day from 2 pm to evening and the income earned is relatively normal.

2. Number of Competitions / Competitors

The number of mobile rice mills operating will determine the size of the mobile rice mill business income. If there are not many mobile rice mills operating, there is a great opportunity to get a lot of customers. But if many are operating, then of course there will be a lot of competition in acquiring customers so that the income earned will be small. So, the workers must be very clever in finding regular customers and winning the hearts of customers so that customers do not grind their grain at other mobile rice mills. If in the past there were not many mills operating, people would wait and queue to grind their grain. Now, people no longer want to wait and will immediately switch to other mills. So that Mr. Saiful Mahdi's business arranges a schedule for the mobile rice mill operating area and provides phone numbers to customers who want to use his mobile rice mill services. In addition, workers also give discounts to customers who grind grain in large quantities and the wages collected are not too burdensome for customers. For example, if the milled rice is 20.4 kg, they will only take 2 kg of wages. The workers operate in shifts according to their operating routes and schedules so that their regular customers can continue to use their mobile rice mill services. The workers operate in areas with great opportunities to get customers, namely areas with high rice production such as Sawang, Nisam, Kuta Makmur and Lhoksukon.

3. Machine Damage

The mobile rice mill cannot operate when the machine is broken, so it does not earn income while the machine is being repaired. If the damage is light then it doesn't take long to fix it. However, if the damage is severe, the repair period will be long and require a lot of money, so that the rice mill cannot operate for a long time and does not earn any income during the repair period. Mr. Saiful Mahdi always maintains and maintains his rice milling machine so that it is always in good condition so that no serious damage occurs which can disrupt his business.

The damage that often occurs in this mobile rice mill business is the breaking of the fan belt and damage to the filter. Both of these components must always be considered condition. The fan belt used consists of 3 fan belts, and once a month one fan belt is replaced. The condition of the filter must also be considered. If the filter has holes and is torn, it must be replaced immediately. Usually this filter is replaced every 6 months so that the resulting rice grains are not scattered and collected together with the groats under the filter.

4. There are no safety standards and business permits

Mobile rice mills that operate do not have safety standards in operation. The workers in this business do not have any safety equipment. They did not wear seat belts, helmets or other safety equipment. They also don't have a driver's license. Anyone can become a driver as long as they can drive, even minors can become drivers. This business also does not have a business license and is also not registered at the police office. There is no license plate number and no vehicle registration certificate (STNK). Anyone can become the owner of this business and anyone can easily operate it. Everyone who wants to start this mobile rice mill business only has to have enough money to buy a mobile rice mill machine.

To maintain security, Mr. Saiful Mahdi employs a workforce of adults who are experienced in driving his mobile rice mills.

4. CONCLUSION

1. The total cost incurred in one year is Rp127,785,000 consisting of costs borne solely by the business owner and costs shared by the business owner and the workers.
2. Pgross income received in one year is Rp768,055,500, sput it outnet income received in one year is Rp307,392,750/year.
3. R/C Ratio value of 6.01 (R/C Ratio > 1) and B/C Ratio value of 2.41 (B/C Ratio > 0) show that business Saiful Mahdi's mobile rice mill is feasible to work on.
4. There are 4 obstacles faced in the mobile rice milling business, namely weather, quantity rivalry / competitors, engine failure, and there are no safety standards and business licenses.

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