

Analysis Of Added Value And Income Of Robusta Coffee Bean Processing Business Into Coffee Powder In Tanjung Menang Village, Jarai District, Lahat Regency, South Sumatera Province

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Abstract

This study aims to determine the selling price of robusta coffee beans before being processed into robusta coffee powder, the amount of added value obtained by coffee producers from processing robusta coffee powder, and the amount of income of robusta coffee producers. This study was conducted in Tanjung Menang Village, Jarai District, Lahat Regency, South Sumatra Province. This study was conducted from December 2024 to January 2025. The Hayami method, which applies the calculation of output units and is studied in depth (Indepth Study) in the case of Kopi Petani Kite is the added value analysis used in this study. Based on the analysis that has been carried out on Kopi Petani Kite in one month of production, an added value of IDR 78,400 per kilogram has been obtained while the income obtained was IDR 4,179,500 at the time the study was conducted.

Keywords: Added Value, Robusta Coffee Beans, Coffee Powder

INTRODUCTION

Coffee is a fairly important plantation commodity in international trade. Coffee is one of the trade items that has an important meaning for the Indonesian nation with an export value of 6-10% of a number of agricultural product values. This result supports the economy as the largest source of foreign exchange after rubber. One of the operational policies taken in plantation development is to develop agribusiness by increasing available commodities through increasing production, productivity and developing processed products (Pudji Raharjo, 2013).

Robusta coffee is one of the leading commodities in Jarai District, which is known for its quality and distinctive taste. According to the Central Statistics Agency (2022), Jarai District has a significant agricultural land area for coffee plants, making it one of the coffee producing areas in South Sumatra. Despite the high potential for coffee production, many farmers still sell coffee beans in raw form without further processing, resulting in low added value and suboptimal income.

The process of processing coffee beans into coffee powder involves several stages, including picking, drying, grinding, and packaging. Each of these steps contributes to the quality and selling value of the final product. Previous studies have shown that good processing can increase the selling price of coffee by up to 30% compared to selling raw coffee beans (Prabowo & Sari, 2020). However, many farmers in Jarai District still use traditional methods that are inefficient, reducing their potential income.

The added value of coffee beans refers to the increase in value obtained from processing raw coffee beans into final products, such as ground coffee. This process involves various stages that not only improve product quality but also provide economic benefits to producers. Added value is the difference between the value of the final product and the cost of raw materials and other costs involved in the production process. In the context of coffee beans, added value is calculated as the difference between the selling price of ground coffee and the costs incurred to process raw coffee beans (green beans) into final products (Astuti, 2019)

The added value in processing coffee beans into ground coffee is greatly influenced by the production process, the quality of raw materials, and the efficiency of resource management. By

implementing the Hayami method, producers can effectively calculate and analyze added value to increase the profitability of their business in the coffee industry (Septiani Manica, 2018)

By understanding the added value and coffee processing process, farmers in Jarai District can be more motivated to adopt better and more sustainable practices. The results of this study are expected to be a reference for policy makers, academics, and other stakeholders in supporting the development of the coffee agribusiness sector in the area. Thus, this study is not only beneficial for farmers, but also for the local economy as a whole.

RESEARCH METHODS

This research is located in Tanjung Menang Village, Jarai District, Lahat Regency, South Sumatra Province. The implementation of research and data collection in the field was carried out in late December 2024 to early January 2025.

The method used is the In-Depth Study method or in-depth interviews. The In-Depth Study research method or in-depth interviews is a data collection technique in qualitative research that aims to explore topics in depth through direct interaction between researchers and respondents. This method is often used to dig up information that cannot be obtained through conventional quantitative survey methods.

In this case, the researcher took one respondent who had the highest coffee production in the area. The informants and data that are expected to be obtained from this study are coffee processing business actors who have in-depth data on the MSMEs starting from coffee plant cultivation, the process of processing coffee beans into coffee powder to the sale of coffee beans and coffee powder.

The data used in this study consists of secondary and primary data. Primary data is obtained through direct observation and interviews with coffee processing business actors in Tanjung Menang who can provide information using a list of questions (Questionnaire) that has been prepared in advance. Secondary data was obtained from related institutions such as the Central Statistics Agency (BPS), and other agencies.

To analyze the problem, the first method used was the Hayami method, namely to find out how much added value the coffee business in Jarai obtained from processing ground coffee.

Table 1. Value Added using the Hayami method

| Variable Description | Hayami method added value analysis | Sub variables |
|-------------------------|------------------------------------|----------------------|
| | No | |
| Output, Input and Price | 1 Output (Kg) | (1) |
| | 2 Raw Material Input (Kg) | (2) |
| | 3 Labor Input (Jko) | (3) |
| | 4 Conversion Factor | (4)=(1):(2) |
| | 5 Labor Coefficient (Jko) | (5)=(3):(2) |
| | 6 Output Price (Rp) | (6) |
| | 7 Labor Wages (Jko) | (7) |
| Revenue and Profit | 8 Raw Material Input Price (Rp/Kg) | (8) |
| | 9 Other Input Contribution (Rp/Kg) | (9) (10)=(4x6) |
| | 10 Output Value (Rp/Kg) | (11a)=(10)-(8)-(9) |
| | 11 a. Added Value (Rp/Kg) | (11b)=(11a)/(10)x100 |
| | b. Added Value Ratio (%) | (12a)=(5)x(7) |
| | 12 a. Labor Income (Rp/hour) | (12b)=(12a)(11a)x100 |
| | b. Labor Income (Rp/hour) | (13a)=(11a)-(12a) |
| | 13 a. Profit (Rp/Kg) | (13b)=(13a)/(10)x100 |

| b. Profit Level (%) | | |
|---|-----------------------------|----------------------|
| Remuneration for owners of production factors | 14 Margin (Rp/Kg) | (14)=(10)-(8) |
| | a. Labor Income | (14a)=(12a)/(14)x100 |
| | b. Other Input Contribution | (14b)=(9)/(14)x100 |
| | c. Company Profit | (14c)=(13a)/(14)x100 |

Source: Mumpuningsih, 2008

The data analysis used to analyze the second problem is the analysis of producer income. Mathematically, the equation can be written as follows:

$$\pi = TR - TC$$

Information :

π = Income

TR = Total Revenue

TC = Total Cost

RESULT AND DISCUSSION

a. Value Added Analysis

Table. 2 Results of the analysis of the added value of robusta coffee beans into coffee powder at the Kite Farmer Coffee Shop, Tanjung Menang Village, Jarai District, Lahat Regency.

| No | Variable | Mark |
|--|----------------------------------|---------|
| Output, Input Dan Harga | | |
| 1. | Output (Kg) | 55 |
| 2. | Raw Material Input (Kg) | 60 |
| 3. | Labor Input (HOK) | 2 |
| 4. | Conversion Factor | 0,91 |
| 5. | Labor Coefficient | 0,33 |
| 6. | Output Price (Rp) | 170.000 |
| 7. | Labor Wages (Rp/HOK) | 70.000 |
| Revenue and Profit | | |
| 8. | Raw Material Input Price (Rp/Kg) | 75.000 |
| 9. | Other Input Contribution (Rp/Kg) | 1.300 |
| 10. | Output Value (Rp/Kg) | 154.700 |
| 11. | a. Added Value (Rp/Kg) | 78.400 |
| | b. Added Value Ratio (%) | 50,6 |
| 12. | a. Labor Income (Rp/hour) | 23.100 |
| | b. Labor Share (%) | 29,4 |
| 13. | a. Profit (Rp/Kg) | 55.400 |
| | b. Profit Level (%) | 35,8 |
| Reward for owners of production factors | | |
| 14. | Margin (Rp/Kg) | 79.700 |
| | a. Labor Income | 28,9 |
| | b. Other Input Contributions | 1,63 |
| | c. Company Profit | 69,4 |

It can be seen that the input of raw materials in the form of robusta coffee beans used in one month of the production process is 60 kg which produces an output of 55 kg and the labor required is 2 (HOK).

The conversion factor is a comparison between the results obtained and the amount of raw materials used. To find out the conversion factor, it can be seen from the calculation of the coffee powder produced as much as 55 kg divided by the raw material of coffee beans as much as 60 kg so that it produces 0.91. The conversion factor of 0.91 shows that every one kg of raw material of coffee beans will produce 0.91 kg of coffee powder.

The labor coefficient value of 0.33 hok / kg shows that every one direct labor absorbed to process one kg of coffee beans is 0.33 hok / kg. The labor coefficient value comes from the labor input of 2 HOK divided by the input of raw materials of coffee beans as much as 60 kg. The output price is the selling value of the processed product of robusta coffee beans, namely coffee powder. This means that the selling price or selling value of processed coffee beans in the form of coffee powder is IDR. 170,000 per kilogram with an input price or robusta coffee bean price of Rp. 75,000 per kilogram.

Other input contributions of Rp. 1,300, show the costs obtained from the cost of supporting materials divided by the output produced. These supporting materials consist of packing paper needed as much as 55 pcs in one production at a price of Rp. 43,000 and Labels needed as much as 55 pcs at a price of Rp. 25,000. So the total supporting materials issued are Rp. 68,000. So the contribution of other inputs per kilogram of raw materials is Rp. 1,300.

The value of the robusta coffee powder product is Rp. 154,700 per kilogram. This output value itself comes from the multiplication of the conversion factor and the output price, resulting in a product value of Rp. Rp. 154,700. Added value of Rp. 78,400, shows the amount of added value from processing robusta coffee beans into coffee powder is Rp. 78,400 obtained from the reduction of output value of Rp. 154,700 minus the price of raw materials of Rp. 75,000 and other input contributions of Rp. 1,300.

The ratio of added value to product value is 50.6%, indicating that for every Rp. 100 of coffee powder product value, an added value of Rp. 50.6 will be obtained. This ratio is obtained from the added value of Rp. 78,400 divided by the output value of Rp. 154,700 multiplied by 100, resulting in 50.6%. Labor income of Rp. 23,100 is the income of labor obtained from each kg of processed coffee bean raw material. This calculation is obtained from the multiplication of the labor coefficient of 0.33 and the labor wage of Rp. 70,000.

The portion of labor obtained is 29.4%, indicating the level of income obtained by labor from each kg of processed coffee bean raw material. This labor share value is obtained from labor income of Rp. 23,100 divided by the added value of Rp. 78,400 multiplied by 100 to produce 29.4%. Profit of Rp. 55,400, meaning the profit obtained for each kg of raw materials processed is Rp. 55,400. This profit is obtained from the reduction of added value of Rp. 78,400 and labor income of Rp. 23,100. With a profit level of 35.8%, obtained from the profit of Rp. 55,400 divided by the output value of Rp. 154,700 multiplied by 100. The margin of Rp. 79,700 is the difference between the product value and the price of raw materials. This calculation is obtained by subtracting the output value of Rp. 154,700 and the input price of raw materials of Rp. 75,000. Where the compensation for production factors to labor is 28.9%, for other input contributions of 1.63%, and a profit of 69.4%. Shows that the level of profit obtained by Kite Farmer Coffee is 69.4%.

b. Business analysis

The price of raw materials for robusta coffee beans at the time of the study was Rp. 75,000 per kilogram. The total cost incurred for raw materials for robusta coffee beans was Rp. 4,500,000, this amount was obtained by multiplying the raw materials for robusta coffee beans as much as 60 kilograms by the price of raw materials for coffee beans of Rp. 75,000. The equipment used for processing robusta coffee beans at Kopi Petani Kite, Tanjung Menang

Village already uses modern equipment. The equipment used is grading, roasting, grinder, press machine, coffee spoon, jar, winnowing, burlap, basket, tarpaulin and scales. The cost of equipment and depreciation of equipment are as follows:

Table 3. Total depreciation costs of equipment

| No | Name of Equipment | Price (Rp) | Residual Value (Rp) | Economic Life (Years) | Depreciation Cost (Rp) |
|-------|-------------------|------------|---------------------|-----------------------|------------------------|
| 1. | Grading | 25.000.000 | 2.500.000 | 10 | 187.500 |
| 2. | Roasting | 20.000.000 | 2.000.000 | 10 | 150.000 |
| 3. | Grinder | 12.000.000 | 1.200.000 | 10 | 90.000 |
| 4. | Press Machine | 3.000.000 | 300.000 | 10 | 22.500 |
| 5. | Coffee Spoon | 24.000 | | 2 | 1.000 |
| 6. | Jars | 60.000 | | 2 | 2.500 |
| 7. | Tarpaulin | 108.000 | | | 51.800 |
| 8. | | 400.000 | | | 56.700 |
| Total | | | | | 462.500 |

Auxiliary materials are materials used as complements in the production process to produce products that function perfectly according to the expected product parameters.

Table 4. Cost of auxiliary materials

| No | Auxiliary Materials | Amount | Cost (Rp) |
|-------|---------------------|--------|-----------|
| 1. | Packing Paper | 55 pcs | 43.000 |
| 2. | Label | 55 pcs | 25.000 |
| Total | | | 68.000 |

The income obtained from 55 kg of robusta coffee powder multiplied by the price of coffee powder of Rp. 170,000 per kilogram, then the income obtained in one month of the production process of processing robusta coffee beans into coffee powder at Kopi Petani Kite is Rp. 9,350,000.

Table 5. Total cost of coffee production

| No. | Description | Amount (Rp) |
|---------------|------------------------|-------------|
| Variable Cost | | |
| 1. | Raw Materials | 4.500.000 |
| 2. | Auxiliary Materials | 68.000 |
| 3. | Labor Wages | 140.000 |
| Fixed Costs | | |
| 4. | Equipment Depreciation | 462.500 |
| Total | | 5.170.500 |

It can be seen that the total cost incurred by Kopi Petani Kite in one month of production is Rp. 5,170,500 which consists of variable costs and fixed costs.

Table 6. Income

| No. | Description | Amount (Rp) |
|-------|-------------|-------------|
| 1. | Receipts | 9.350.000 |
| 2. | Total Costs | 5.170.500 |
| Total | | 4.179.500 |

It can be seen that the amount of income obtained by Kite Farmer Coffee in Tanjung Menang Village is Rp. 4,179,500

CONCLUSION

Based on the results of the research and data analysis conducted, it can be concluded as follows:

1. The price of robusta coffee beans sold before processing by Kopi Petani Kite, Tanjung Menang Village, Jarai District, Lahat Regency, South Sumatra Province is IDR 75,000 per kilogram.
2. The added value generated from the processing of robusta coffee beans into robusta coffee powder by Kopi Petani Kite, Tanjung Menang Village, Jarai District, Lahat Regency, South Sumatra Province is IDR 78,400 for every kilogram of robusta coffee bean raw material used.
3. The income received by Kopi Petani Kite, Tanjung Menang Village, Jarai District, Lahat Regency, South Sumatra Province in one month of production is IDR 4,179,500.

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