



Analysis of Value Added and Income of Processed Tomi-Tomi (Flacourtia Inermis Roxb) Products (A Case Study of the Wayasel MSMEs In Negeri Rutong, Leitimur Selatan District)

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ABSTRACT

Micro, Small, and Medium Enterprises (MSMEs) play a strategic role in driving local economic growth by increasing the value added of products based on local resources. One of the potential commodities in Maluku is the tomi-tomi fruit (*Flacourtia inermis* Roxb), which is processed into jam, juice, and wine by the Wayasel MSMEs in Negeri Rutong, Leitimur Selatan District. This study aims to analyze the value added and business revenue from the processing of tomi-tomi fruit. The analytical methods used are value-added analysis using the Hayami Method and revenue analysis. The results of the study indicate that: (1). Processing tomi-tomi fruit into jam, juice, and wine has proven capable of creating economic added value for Wayasel MSMEs. The analysis results show that wine generates the highest added value at IDR 374,701 per kilogram of raw material, with an added value ratio of 75.06%, followed by juice at IDR 224,235 per kilogram with a ratio of 62.29%, and jam at IDR 41,468 per kilogram with a ratio of 34.56%. The high value added in wine products indicates that processing tomi-tomi fruit into wine is the most profitable utilization alternative. Meanwhile, the juice product exhibits a fairly high value-added with a relatively simpler and faster production process, whereas the jam product yields the lowest value-added, necessitating improvements in production efficiency and product innovation. (2). The tomi-tomi fruit processing business at the Wayasel generates positive revenue and is worth developing. In a single production cycle, total revenue amounts to IDR 2,800,000 with total production costs of IDR 1,166,720, resulting in a profit of IDR 1,633,280. Of the three products produced, wine contributes the largest share of revenue compared to juice and jam due to its higher selling price. Juice also contributes a fairly good share of revenue, as it is supported by relatively lower production costs and a more efficient production process. Thus, the development of wine and juice products holds promise.

INTRODUCTION

MSMEs play a vital role in supporting Indonesia's economy. In addition to creating jobs, MSMEs also contribute to economic equality and improved community well-being (Lubis, 2024:92). Ananda (2024:219) emphasizes that MSMEs play a strategic role in the national economy through their ability to create jobs, foster innovation based on local potential, and improve community well-being.

Data from the Ministry of Cooperatives and SMEs for 2023 shows that the number of MSMEs in Indonesia reached 66 million business units, capable of employing 117 million workers—or about 97% of the total national labor force. Furthermore, MSMEs make a significant contribution to the national Gross Domestic Product (GDP) (Kurniawan et al., 2024:2). This situation underscores that the development of MSMEs is essential for sustaining economic stability and growth.

Table 1. Contribution of MSMEs to Gross Domestic Product, 2018-2022.

Contribution of MSMEs to GDP in 2018-2022		
Year	contribution	Growth in contribution
2018	57,8%	0,7%
2019	60,3%	2,5%
2020	37,3%	-23%
2021	61,9%	24,6%
2022	60,3%	-1,6%

Source: Ministry of Cooperatives and SMEs (2023) in Hidayat (2023).

Based on Table 1, the contribution of MSMEs to the national GDP has shown a fluctuating trend. In 2018, the contribution of MSMEs was 57.8% and increased to 60.3% in 2019. However, in 2020, there was a sharp decline to 37.3% due to the COVID-19 pandemic. Although it rebounded to 61.9% in 2021, this contribution fell again to 60.3% in 2022. This situation indicates that MSMEs play a significant role in the national economy but remain vulnerable to changes in economic conditions.

In Maluku Province, MSMEs also serve as a driver of local economic growth, particularly in the creative economy, culinary, and handicrafts subsectors. However, the number of business entities declined from 71,205 in 2017 to 51,326 in 2020 (Ferdinandus and Muspida, 2023:478). This situation indicates that the sustainability and development of MSMEs in the region still face various challenges.

In the context of agribusiness, MSMEs have significant opportunities to increase value added by processing agricultural products into higher-value goods. However, the utilization of agricultural products remains suboptimal, as evidenced by the fact that fruit consumption among Indonesians is only 37.2 kg per capita per year—lower than the FAO's recommendation of 65 kg per capita per year (BPN, 2024). This situation highlights the need for innovation in the processing of agricultural products.

One local crop with development potential is the tomi-tomi fruit (*Flacourtia inermis* Roxb). This fruit contains anthocyanins and antioxidants that offer health

benefits, such as helping to lower blood sugar levels, maintain blood pressure, and neutralize free radicals (Fitriyani et al., 2018:137–138). In Ambon City, particularly in Negeri Rutong, the tomi-tomi plant grows naturally, and its existence is safeguarded through programs run by the church and the local government as part of efforts to preserve local plants. This potential is being harnessed by the Wayasel MSME in Negeri Rutong, which has been processing tomi-tomi fruit into jam, juice, and wine since 2017. However, this business still faces limitations in production scale, so the value added and income generated have not yet reached their full potential.

Several previous studies have analyzed the value added and revenue generated by various fruit agro-industrial products, such as the processing of salak, mangoes, and nutmeg, showing that processing activities can increase the economic value of products compared to selling raw materials directly. However, research on the value added and revenue from processed tomi-tomi fruit (*Flacourtia inermis* Roxb) – particularly at the Wayasel MSME in Negeri Rutong, which produces multiple product types simultaneously, such as jam, juice, and wine – remains very limited. Furthermore, no study has yet compared the magnitude of value added and revenue from these three products within the same business unit.

Given these conditions, further analysis is needed regarding the value added and income generated from the processing of tomi-tomi fruit. Therefore, a study titled “Analysis of Value Added and Income from Processed Tomi-Tomi (*Flacourtia inermis* Roxb) Products (A Case Study of the Wayasel MSME in Negeri Rutong, South Leitimur District)” needs to be conducted. The results of this study are expected to provide useful information for the development of MSMEs, particularly in increasing product value-added and revenue, as well as supporting the local economy in Negeri Rutong and the Province of Maluku in general.

Based on the background above, the research questions to be examined are as follows:

1. How much added value is generated from the processing of tomi-tomi fruit at the Wayasel MSME in Negeri Rutong, South Leitimur District?
2. How much revenue is generated from the processing of tomi-tomi fruit at the Wayasel MSME in Negeri Rutong, South Leitimur District?

Based in the problem identification, the objectives of this study are as follows:

1. To analyze the amount of value added generated from the processing of tomi-tomi fruit at the Wayasel MSME in Negeri Rutong, South Leitimur District.
2. To analyze the revenue generated from the processing of tomi-tomi fruit at the Wayasel MSME in Negeri Rutong, South Leitimur District.

LITERATURE REVIEW

Tomi-tomi (*Flacourtia inermis* Roxb) is a species native to the tropical regions of Indonesia that contains anthocyanins, as evidenced by the puIDRlish-

red color of its fruit. Tomi-tomi (*Flacourtia inermis* Roxb) is commonly found in the forests of Maluku and several other regions of Indonesia. The fruit has a sour yet slightly sweet taste, so it is often used in dishes such as rujak, jam, pickles, candied fruit, or syrup (Fitriyani et al., 2018:137–144).

Micro, Small, and Medium EntelDRises (MSMEs) are an economic sector that plays a vital role in promoting economic equality among the population while also providing employment opportunities for people from various backgrounds (Hastuti, 2020, in Ismail et al., 2024: 1037–1044).

Value added is the increase in the value of a commodity that arises as a result of processing, transportation, and storage in production activities through the use of functional inputs. Value added is influenced by both technical and non-technical aspects. From the results of the value-added analysis, information can be obtained regarding the magnitude of value added, ratios, margins, and the wages received by the owners of production factors (Talumesang et al., 2020:77)

Income is the profit earned by a business owner after deducting sales revenue from all costs incurred during the production process. Income analysis is conducted to determine the amount of income generated from a business activity. Income analysis can serve to measure the business owner's success in the business activities they undertake. Income also refers to total receipts whether in the form of money or goods, whether from third parties or from one's own production, valued at the prevailing market price at that time (Sukardi, 2007 in Rezky HSB, S.B., 2019:14).

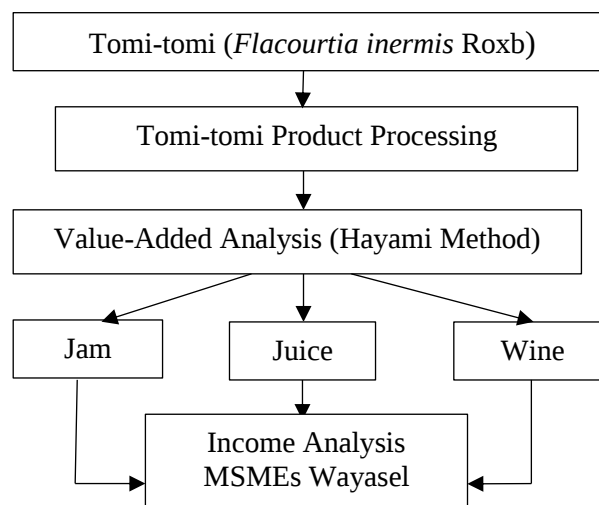


Figure 1. Framework for thinking about analysis of value added and income of processed tomi-tomi (*Flacourtia Inermis* Roxb) products(a case study of the Wayasel MSMEs in Negeri Rutong, Leitimur Selatan District)

Previous research has shown that processing agricultural produce into value-added products can increase the value added and income of MSMEs. Aponno and Siahaya (2023) found that processing salak into chips generated an added value of IDR 2,700/kg with a ratio of 32%, while Nadia et al. (2025) demonstrated that processing pineapples into various processed products can significantly increase added value and business profits. These results indicate

that diversifying processed products is an effective strategy for increasing the economic value of local commodities.

METHODS

This study was conducted at the Wayasel MMSME in Negeri Rutong. The population for this study consisted of all MSMEs located in Negeri Rutong, South Leitimur Subdistrict, totaling 3 MSMEs. The sample was selected using puIDRosive sampling, a technique based on specific criteria (Sugiyono, 2022). The selected sample was the Wayasel MMSME because it is the only MMSME that processes tomi-tomi fruit (*Flacourtia inermis* Roxb) into several processed products – namely, jam, juice, and wine – in line with the study’s focus on value-added analysis and income.

There were six research respondents, all of whom were members of the Wayasel MSME involved in production activities. However, each production cycle involved only three workers, while the other three members worked in shifts during the next production cycle. Data collection was conducted over the course of one production cycle, which lasted one day for jam and juice products and 22 days for wine products, covering the processing and fermentation stages until the products were ready for market.

This study was conducted at the Wayasel MMSME in Negeri Rutong.. The data used in this study consisted of primary and secondary data. Data was collected through observation, interviews, and documentation. Data was collected through observation, interviews, and documentation. This data typically comes from reputable institutions, journals, and books. The first research problem used a quantitative approach to determine the value added of this study using the Hayami Method.

Table 2.Procedure for Calculating Value Added Using the Hayami Method in Aponno and Siahaya, 2023

NO	VARIABLE	VALUE
I	Output, input dan price	
1.	Production output (kg/production process)	(1)
2.	Raw materials (kg/production process)	(2)
3.	Average labor hours (HOK/production process)	(3)
4.	Conversion factor	(4) = (1) / (2)
5.	Labor coefficient (HOK)	(5) = (3) / (2)
6.	Product price (IDR/Kg/L)	(6)
7.	Direct labor wages (IDR/HOK)	(7)
II	Revenue and Profit	
8.	Raw material price (IDR/Kg)	(8)
9.	Other input costs (IDR/Kg)	(9)
10.	Product value (IDR / Kg)	(10) = (4) x (6)
11.	A. Value added (IDR/Kg)	(11 A) = (10) - (9) - (8)
	B. Value-added ratio (%)	(11 B) = (11A / 10) x 100%
12.	A. Labor compensation (IDR/Kg)	(12 A) = (5) x (7)
	B. Labor share (%)	(12 B) = (12 A / 11 A) x 100%
13.	A. Profit (IDR/Kg)	(13 A) = (11 A) - (12 A)

NO	VARIABLE	VALUE
	B. Manager's profit margin (%)	(13 B) = (13 A / 11 A) x 100%
III	Compensation for owners of factors of production	
14.	Margin (IDR/Kg)	(14) = (10) - (8)
	A. Labor income (%)	(14 A) = (12 A / 14) x 100%
	B. Contribution of other inputs (%)	(14 B) = (9 / 14) x 100%
	C. Entrepreneur's profit (%)	(14 C) = (13 A / 14) x 100%

In line with the second research objective, the data was analyzed using a quantitative approach. The research problem was analyzed using revenue analysis. To determine the income of Wayasel MSMEs, the following formula was used (Herawati, 2017):

$$\pi = TR - TC \dots\dots\dots (1)$$

Notes:

π = Income

TR = Total Revenue

TC = Total Cost

To determine total revenue (TR), the following formula is used:

$$TR = P \times Q \dots\dots\dots (2)$$

Notes:

TR = Total Revenue

Q = Quantity of products produced

P = Product Price

Total cost is the total amount of production costs incurred, which is the sum of fixed costs and variable costs using the following formula:

$$TC = TFC + TVC \dots\dots\dots (3)$$

Notes:

TC = Total Cost

TFC = Total Fixed Cost

TVC = Total Variable Cost

RESULTS AND DISCUSSION

Production System for Tomi-Tomi Product Processing

Raw Material Procurement

The primary raw material used in the processing of tomi-tomi fruit at the Wayasel MSMEs is fresh tomi-tomi fruit, priced at IDR 20,000/kg. However, in practice, the raw materials are obtained for free because they come from plants that are assets of the Rutong region. Tomi-tomi fruit is a seasonal fruit, so the Wayasel MSMEs stores it in freezers during the harvest season to maintain the availability and quality of the raw materials. Tomi-tomi fruit processing is carried out once a month depending on the number of orders. The raw material requirements for tomi-tomi per production run are 5 kg for jam, 2 kg for juice, and 3 kg for wine. The use of raw materials in jam is greater than in juice and wine because its texture is thicker and denser, resulting in greater shrinkage.

Auxiliary Ingredients

The auxiliary ingredients used in processing tomi-tomi fruit into jam, juice, and wine include granulated sugar, cinnamon, salt, vanilla, sopi, water, cloves, and kerosene. The use of auxiliary ingredients varies for each product according to the requirements of the processing method and the characteristics of the resulting product. In jam production, granulated sugar, cinnamon, salt, vanilla, water, and kerosene are used. Juice production uses granulated sugar, salt, water, and kerosene. Meanwhile, wine production uses granulated sugar, cinnamon, salt, vanilla, cloves, sopi, water, and kerosene. The differences in the use of these auxiliary ingredients are intended to support the production process and produce the desired flavor and quality of the product.

Workforce

Production activities at the Wayasel MSMEs involve three workers, each of whom is responsible for processing jam, juice, and wine. All workers are women, comprising eight members of the MSMEs who take turns participating in production activities. Processing time varies by product: approximately 2 hours for jam, 1 hour for juice, and up to 22 days for wine due to the fermentation process. Wages for workers per product amount to IDR 50,000 per production run. The labor cost ratio (HOK) for each product is 0.25 for jam, 0.125 for juice, and 1.375 for wine, indicating that wine production requires the greatest amount of labor compared to the other products.

Analysis of the Value Added from the Processing of Tomi-Tomi Products at Wayasel MSMEs

This study measures the value added generated from the processing of tomi-tomi fruit into jam, juice, and wine. These products are processed by Wayasel MSMEs, which are the subject of this study, with production volume and selling price for each product factored into the value-added calculation. The products in this study are calculated based on the use of 1 kg of tomi-tomi fruit for each product. Further details can be found in Table 2:

Table 3. Analysis of the Value Added Using the Hayami Method at Wayasel					
VARIABLE		Formula	Jam	Juice	Wine
I	Output, input dan price				
1.	Production output (kg/production process)	1	0,8 kg	4,5 liter	4,16 liter
2.	Raw materials (kg/production process)	2	1 kg	1 kg	1 kg
3.	Average labor hours (HOK/production process)	3	0,25	0,125	1,375
4.	Conversion factor	$4 = 1/2$	0,8	4,5	4,16
5.	Labor coefficient (HOK)	$5 = 3/2$	0,25	0,125	1,375
6.	Product price (IDR/kg/1	6	IDR 150.000	IDR 80.000	IDR 120.000

	VARIABLE	Formula	Jam	Juice	Wine
7.	Direct labor wages (IDR /HOK)	7	IDR 10.000	IDR 25.000	IDR 16.667
II	Revenue and Profit				
8.	Raw material price (IDR /Kg)	8	IDR 20.000	IDR 20.000	IDR 20.000
9.	Other input costs (IDR /Kg)	9	IDR 58.532	IDR 115.765	IDR 104.499
10.	Product value (IDR/Kg)	10 = 4 x 6	IDR 120.000	IDR 360.000	IDR 499.200
11.	A. Value added (IDR /Kg)	11A = 10-9-8	IDR 41.468	IDR 224.235	IDR 374.701
	B. Value-added ratio (%)	11B=11A /10x100 %	34,56%	62,29%	75,06%
12.	A. Labor compensation (IDR /Kg)	12A = 5 x 7	IDR 2.500	IDR 3.125	IDR 22.917
	B. Labor share (%)	12B=12A /11Ax100 %	6,03%	1,39%	6,12%
13.	A. Profit (IDR /Kg)	13 A = 11A - 12A	IDR 38.968	IDR 221.110	IDR 351.783
	B. Manager's profit margin (%)	13B=13A /11Ax100 %	93,97%	98,61%	93,88%
II	Compensation for owners of factors of production				
I					
14.	Margin (IDR /Kg)	14 = 10-8	IDR 100.000	IDR 340.000	IDR 479.200
	A. Labor income (%)	14A = 12A/14 x 100%	2,50%	0,92%	4,78%
	B. Contribution of other inputs (%)	14B = 9/14x100%	58,53%	34,05%	21,81%
	C. Entrepreneur's profit (%)	14C = 13A /14x100 %	38,97%	65,03%	73,41%

Source: Primary Data After Processing 2026

Output, Input, dan Price

The output produced from processing 1 kg of tomi-tomi fruit varies for each product. Jam production yields 0.8 kg with a selling price of IDR 15,000 per 100 grams, juice yields 4.5 liters with a selling price of IDR 20,000 per 250 ml, and wine yields 4.16 liters with a selling price of IDR 30,000 per 250 ml. With the same amount of raw materials, juice and wine produce a larger output compared to jam, making them more efficient in utilizing raw materials. The labor used

includes all workers involved in the process of processing tomi-tomi into jam, juice, and wine. The HOK values are 0.25 for jam, 0.125 for juice, and 1.375 for wine. Although each product requires one worker, wine processing demands a greater labor input because the production process is more complex and takes up to 22 days.

The conversion factor indicates the ratio between output and the amount of raw materials used (Herawati, 2017). The conversion factor values are 0.8 for jam, 4.5 for juice, and 4.16 for wine, meaning that every 1 kg of raw material produces 0.8 kg of jam, 4.5 liters of juice, and 4.16 liters of wine. Meanwhile, the labor coefficients are 0.25 for jam, 0.125 for juice, and 1.375 for wine, indicating that wine production requires the most labor-intensive process compared to the other products. The product output value is IDR 150,000/kg for jam, IDR 80,000/liter for juice, and IDR 120,000/liter for wine. The high output value of wine is influenced by its higher selling price compared to other products. The labor cost used in this study is IDR 50,000 per man-hour and has been converted based on 1 kg of raw material.

Revenue and Profit

The raw material used in the production of jam, juice, and wine is tomi-tomi fruit, priced at IDR 20,000/kg. Other input costs per 1 kg of raw material are IDR 58,532 for jam, IDR 115,765 for juice, and IDR 104,499 for wine. These values are obtained by summing all indirect costs excluding raw material and labor costs, then dividing by the total raw material used (Sarina, 2022). Product value is obtained by multiplying the conversion factor by the product price, amounting to IDR 120,000 for jam, IDR 360,000 for juice, and IDR 499,200 for wine. The highest product value is found in wine due to the conversion factor and the high selling price. The value added generated is IDR 41,468/kg for jam, IDR 224,235/kg for juice, and IDR 374,701/kg for wine. These results indicate that processing tomi-tomi into wine yields the greatest economic value increase, followed by juice and jam.

The value-added ratios were 34.56% for jam, 62.29% for juice, and 75.06% for wine. Based on Herawati's (2017) criteria, the value-added ratios for juice and wine fall into the high category, while jam falls into the moderate category. This indicates that juice and wine are capable of generating a higher economic value from raw materials compared to other products. Labor compensation amounts to IDR 2,500/kg for jam, IDR 3,125/kg for juice, and IDR 22,917/kg for wine. The labor share of value added reaches 6.03% for jam, 1.39% for juice, and 6.12% for wine. The high labor compensation and share in wine are due to the lengthy processing time and the significant amount of labor input required. The profit earned was IDR 38,968/kg for jam, IDR 221,110/kg for juice, and IDR 351,783/kg for wine, with profit margins of 93.97%, 98.61%, and 93.88%, respectively. These results indicate that juice is the most profitable product compared to the others.

Remuneration for Owners of Factors of Production

The results of the value-added analysis also illustrate the size of the margins generated from processing tomi-tomi fruit into jam, juice, and wine, as well as the allocation of those margins to labor, supporting input costs, and the profits earned by the business. The margin is calculated as the difference between the value of the product and the price of raw materials, amounting to IDR 100,000 for jam, IDR 340,000 for juice, and IDR 479,200 for wine. The highest margin value is found in wine, indicating that this product provides the largest contribution to the owners of the factors of production. However, the distribution of the margin in wine is dominated by labor (4.78%), followed by other inputs (21.81%), and business profit (73.41%). For jam, the majority of the margin is allocated to other inputs (58.53%), while for juice, the majority goes to business profit (65.03%), making the juice product more profitable because the proportion of labor costs is relatively low.

Based on Herawati's (2017) criteria, the value-added ratio for jam is 34.56%, which falls into the moderate category, while that for juice is 62.29% and for wine 75.06%, both of which fall into the high category. The high value-added ratios for juice and wine indicate that these two products are able to increase the economic value of raw materials more effectively than jam. The high value-added ratio for juice also reflects labor efficiency, with a labor share of only 1.39%, whereas for wine, although the value-added ratio is the highest, the majority of the value-added is allocated to labor. Calculations using the Hayami Method show that the highest value added is achieved in wine at IDR 374,701/kg of raw material, followed by juice at IDR 224,235/kg and jam at IDR 41,468/kg. The high value added in wine is supported by conversion factors and high selling prices. However, juice products yield greater profits due to relatively low labor costs. Thus, although wine generates the highest value added, juice products can be considered a more efficient alternative for development, while jam products still require improvements in the production process to increase the value added generated.

Income Analysis

The income of Wayasel MSMEs is calculated based on fixed costs, variable costs, total costs, and revenue. The revenue analysis in this study is based on a single production cycle. A more detailed description of each cost and revenue component is presented as follows:

Table 4. Wayasel MSMEs Income/Single Production Cycle

Uraian	FC	VC	Labor Cost	Total Cost	Revenue	Income MSMEs
Selai	17,620	392,664	12,500	422,784	600,000	177,216
Jus	11,870	272,732	6,250	288,186	700,000	411,814
Wine	12,704	374,796	68,750	455,750	1,500,000	1,044,250
Total	42,194	1,040,192	87,500	1,166,720	2,800,000	1,633,280

Source: Primary Data After Processing 2026

Fixed Costs

Wayasel's fixed costs consist of depreciation expenses for equipment used in the production process. The fixed cost per unit of production is IDR 17,620 for jam, IDR 11,870 for juice, and IDR 12,704 for wine, with total fixed costs amounting to IDR 42,194. The largest fixed cost for jam comes from the use of frying pans, while for juice and wine it comes from the use of pots and blenders, which have a higher depreciation value.

Variable Costs

Variable costs are costs that are consumed in each production process, including raw materials and auxiliary materials. Wayasel MSME's variable costs per production batch are IDR 392,664 for jam, IDR 272,732 for juice, and IDR 374,796 for wine, with total variable costs of IDR 1,040,192. The largest cost component in jam production comes from granulated sugar and tomi-tomi raw materials, while for juice and wine, costs are dominated by packaging expenses, as well as raw materials for wine production.

Labor Costs

Labor costs are one of the variable cost components incurred during the production process. Labor costs for jam amount to IDR 12,500, for juice IDR 6,250, and for wine IDR 68,750, calculated based on person-days (PD) and wages. A single production run involves 3 workers. Labor usage for each product varies depending on the stage and duration of the production process.

Total Costs

Total production costs are the sum of fixed costs, variable costs, and labor costs. In a single production run, the total costs incurred by Wayasel MSMEs is IDR 422,784 for jam, IDR 288,186 for juice, and IDR 455,750 for wine, with a total of IDR 1,166,720. The jam product has the highest total production cost, followed by wine and juice. The high production cost of jam is influenced by the large amount of raw materials and auxiliary materials used in the production process.

Revenue

Revenue for Wayasel MSMEs is derived from the product of the selling price and the quantity of products produced. In a single production run, revenue amounted to IDR 600,000 for jam, IDR 700,000 for juice, and IDR 1,500,000 for wine, bringing the total revenue to IDR 2,800,000. The highest revenue is generated from wine because it is supported by a higher selling price and a larger quantity of products produced compared to other products.

Income

Wayasel MSMEs income per production cycle is IDR 177,216 from jam, IDR 411,814 from juice, and IDR 1,044,250 from wine, bringing the total income to IDR 1,633,280. The highest income was generated from the wine product because it has a higher selling price compared to other products. This indicates that wine is the product that contributes the most to Wayasel MSME's revenue.

CONCLUSIONS AND RECOMMENDATIONS

Based on the results of a study analyzing the value added and revenue from tomi-tomi fruit processing at Wayasel MSMEs, the following conclusions can be drawn:

1. Processing tomi-tomi fruit into jam, juice, and wine has proven to generate economic added value for Wayasel's MSMEs. Analysis results show that wine generates the highest value added, amounting to IDR374,701 per kilogram of raw material with a value-added ratio of 75.06%, followed by juice at IDR224,235 per kilogram with a value-added ratio of 62.29%, and jam at IDR41,468 per kilogram with a value-added ratio of 34.56%. The high value-added of the wine product indicates that processing tomi-tomi fruit into wine is the most profitable utilization alternative because it significantly increases the economic value of the raw material. However, the production process takes longer than that of other products. Meanwhile, the juice product demonstrates a fairly high value-added with a relatively simpler and faster production process. Jam generates the lowest value-added, so efforts to improve production efficiency and product innovation are needed to increase the value-added generated.
2. The tomi-tomi fruit processing business at the Wayasel MSME generates a positive income and is worth developing. In a single production cycle, total revenue amounts to IDR2,800,000 with total production costs of IDR1,166,720, resulting in a profit of IDR1,633,280. Of the three products produced, wine contributes the most revenue compared to juice and jam. The high revenue from wine is driven by its high selling price, which boosts the business's total revenue. Juice also contributes significantly to revenue, supported by relatively lower production costs and a more efficient production process. Conversely, jam contributes the least to revenue because its value added and output are relatively smaller compared to juice and wine. Thus, developing wine and juice products offers better prospects for increasing revenue and ensuring the sustainability of the tomi-tomi fruit processing business at the Wayasel SME.

Recommendations

Wayasel MSMEs are advised to increase production and marketing of wine and juice products, as these offer higher added value and greater profits. In addition, product innovation, packaging improvements, and the use of social media are necessary to expand the market.

FURTHER STUDY

This study was conducted on only one MSME and covered only one production cycle; therefore, the findings cannot yet reflect the conditions of all tomi-tomi processing businesses in Maluku. Future research is recommended to involve more MSMEs and to examine aspects of business viability, marketing, and consumer preferences regarding processed tomi-tomi products.

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