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Analysis of Added Value of Milkfish Presto and Otak Agroindustry (Case Study of Mbak Lina's Agro-Industry in Kedungluk Village, Sidoarjo Regency

Noni Cornelasari[1*], Hamidah Hendrarini[2] and Nisa Hafi Idhoh Fitriana[3]
[1-3]Department of Agribusiness, Faculty of Agriculture, East Java "Veteran" National Development, University, Surabaya, Indonesia

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Corresponding Author*
Noni Cornelasari

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Abstract: This study aimed to 1) analyze the amount of profit and R/C ratio obtained from the presto milkfish agro-industry and Mbak Lina's brains in Kedungluk Village, Sidoarjo Regency and 2) analyze the amount of added value generated by the presto milkfish agro-industry and Ms. Lina in Kedungluk Village, Sidoarjo Regency. Location determination was chosen purposively (intentionally). Respondents were determined purposively (intentionally). Respondents in this study were agro-industry owners and 5 workers. The data used are primary data and secondary data. Data collection techniques using interview techniques, observation and documentation. Data analysis used in this research is profit analysis and R/C analysis as well as added value analysis using the Hayami method. The results of this study indicate that the profit earned by Mbak Lina's milkfish agroindustry is Rp. 1,767,863 every time during the production process. The R/C ratio for presto milkfish processing is 1.29 and for milkfish, otak-otak is 1.37. The results of the R/C showing a value > 1 indicate that Mbak Lina's milkfish agro-industry is profitable and feasible to develop. Added value through processing presto milkfish is Rp. 16,815 with an added value ratio of 25.86% and processing of milkfish otak-otak of Rp. 23,700 with an added value ratio of 31.60% Band of Rp. 7,820/kg with an added value ratio of 37.23% which indicates that the added value obtained by Ms. Lina's agro-industry is categorized as moderate added value.

Keywords: Value Added, Profit, R/C Ratio, Milkfish Agroindustry

INTRODUCTION

The development of the fishing industry is a process of change and improvement aimed at a better social form, especially in fishing communities. Fisheries play an important role in developing the quality and quantity of fishery products, producing industrial raw materials, producing animal protein to meet food and nutritional needs, increasing exports, expanding business activities and assisting regional development by taking into account sustainability and environmental functions [1].

Fish contains many organic and inorganic elements that are beneficial to humans, which must be properly processed to make them suitable for human consumption [2]. Food that has microbe growth in it may undergo physical or chemical changes that render it unsafe for ingestion. The goal of food preservation is to stop bacteria from growing inside of food. Microorganisms have an important role in converting raw materials into semi-finished products and finished products because they have enzymes [3].

East Java Province is a region that has a marine and fisheries industry that is deemed to have great potential, according to the Ministry of Marine Affairs and Fisheries. Sidoarjo Regency has the second-highest amount of fishing production in East Java, with 34,458,900 kg. Ponds and exceptional fisheries products, including milkfish, ang shrimp have a lot of promise in the Sidoarjo Regency. Pond cultivation is a source of superior commodity results in Sidoarjo Regency. Milkfish production in Sidoarjo Regency from 2019-2021 tends to increase.

Kedungluk Village is one of the villages that have extensive pond facilities in the Sidoarjo Temple area to exploit existing natural resources by controlling ponds around Kedungluk Village as a livelihood that cannot be separated from the role of the community in its management [4]. The advantages of pond cultivation are the conservation of natural resources, the preservation of local handicrafts by creating jobs and the raising income for pond processors or the environment around fish ponds.

The industry that has the potential to be raised at this time in Kedungluk Village is the milkfish processing industry because milkfish is a superior commodity. In this village there is some processing of fish, however, a lot of fresh fish are sold without processing so the utilization is not optimal and after being harvested without adequate packaging, the selling price is very low because it is not attractive. One agro-industry that is quite large and carries out a sustainable production process is Mbak Lina's agro-industry which processes milkfish presto and milkfish otak-otak. The processing of milkfish presto and milkfish otak-otak is easier and lasts longer and demands more.

There is an analysis of costs, revenues, profits and R/C ratio as well as an analysis of the added value of milkfish presto and milkfish otak-otak so that in this study it can determine the best decision in increasing value added and it can be known that the compensation for production factors is an important tool for price fixing. in Mbak Lina's agro-industry with the support of tourism in the village. The existence of this processing industry is a solution for the development of fishery products because it provides added value for fish and there is a large profit for the agricultural industry so that the income of pond farmers will increase and agro-industrial processing which in turn will improve the regional economy.

Based on this description, it encouraged researchers to analyze the added value of milkfish turning into derivative products, namely milkfish presto and milkfish otak-otak by compiling a study "Analysis of Added Value of Milkfish Presto and Otak-Otak Agro-industry (Case Study of Milkfish Agro-industry Ms. Lina in Kedungluk Village, Sidoarjo Regency)". This study aimed to analyze the amount of profit and R/C received and to analyze the amount of added value in Mbak Lina's milkfish agro-industry in Kedungluk Village, Sidoarjo Regency.

MATERIALS AND METHODS

The place in this study was Kedungluk Village, Sidoarjo Regency. The choice of research sites was carried out purposively or deliberately because most of the objects of community livelihoods are pond farmers and fish processing. The choice of milkfish presto and Mbak Lina's otak-otak agro-industry is because the agro-industry is still producing continuously, which has been operating for 15 years and running its business has regular customers.

The technique in this study was used to identify respondents purposively, namely the owner of the milkfish agro-industry and 5 workers. Business owners were chosen as respondents because they knew all the information regarding the business profile, milkfish production and other information regarding the cost of milkfish presto and milkfish otak-otak. Workers were chosen as respondents because they are permanent workers and based on the knowledge of workers about production process activities to process milkfish into presto milkfish and brain milkfish in Ms. Lina's agro-industry, the total number of respondents is 6 people

Primary data and secondary data are used in this study. Primary data is obtained by asking directly to respondents using media surveys. Secondary data obtained from village documentation, books on research library theories, marine and fisheries statistics, literature and other similar standards can support the research conducted by the author. Data collection techniques used in this study were interviews, observation and documentation as supporting objects. Interview conversation between two or more people, the interviewer is the questioner/giver and the interviewee responds to the question [5].

Observation is a process of finding information that is very accurate in research because researchers see directly the research object because we can observe objects around us with our own five senses [6]. Documentation is used by researchers to support the use of interview and observation methods in research.

The data analysis used in this study is a quantitative descriptive analysis. Descriptive analysis is used to describe the processing of milkfish into processed products, namely milkfish presto and milkfish otak-otak. To achieve the first and second objectives, quantitative analysis is carried out, namely, the amount of profit generated and the R/C ratio as well as the amount of added value obtained is analyzed. The method used in this research is quantitative analysis: Profit Analysis and R/C Analysis.

Cost Analysis

According to Mokalu *et al.* [7], cost analysis refers to all expenses incurred to produce factors of production used in the manufacture of capital goods. The total production cost of the milkfish processing industry can be calculated using the formula:

$$TC = TVC + TFC$$

Information

- TC: Total Cost (IDR)
- TFC: Fixed Costs (Rp)
- TVC: Changing Fee(Rp)

Acceptance Analysis

Receipt or total revenue (TR) is the total income from all the products that have been sold, or multiplying the quantity of the product produced (Q) by the selling price of the product (P) [8]. Calculation of revenue from agro-industry is calculated using the formula:

$$TR = P \times Q$$

Information

- TR: Total Revenue (IDR)
- Q: Quantity of goods produced (Kg)
- P: Price (IDR)

Profit Analysis

Profit or profit (π) is the reduction of the total revenue with the total expense sacrificed. The higher the revenue obtained from product sales, the higher the profit earned by the business [9]. Calculation of profits from agro-industry is calculated using the formula:

$$\pi = TR - TC$$

Table1: Analysis of Added Value of the Hayami Method

No	(Input, Output, Price)	Notation
1.	output(kg)	A
2.	Inputs(kg)	B
3.	Labor (HOK)	C
4.	Conversion Factor	D = A / B
5.	Labor Coefficient (HOK/kg)	E = C / B
6.	Output Price (Rp/kg)	F
7.	Labor Wages (Rp/HOK)	G
	Revenue and Profits	
8.	Raw Material Prices (Rp/kg)	H
9.	Contribution of Other Inputs	I
10.	(Rp/kg)	J = DXF
11.	Output Value (Rp/kg)	K = J – H - I
	a. Value Added (Rp/kg)	L=K / JX 100%
	b. Value Added Ratio (%)	M = EXG
12.	a. Labor Benefits (Rp/Kg)	N= M / KX 100%
	b. Labor Ratio (%)	O = K - M
13.	a. Profit (Rp/kg)	P = O / JX 100%
9.	b. Profit Rate (%)	
	Reply to Owners of Factors of Production	
14.	Profit Margin (Rp/Kg)	Q =J – H
	a. Labor Income (%)	R= (M/Q) x 100%
	b. Contribution of Other Inputs (%)	S=(I/Q)x 100%
	c. Entrepreneur Profit (%)	T = (O/Q) x 100%

Source: Hayami *et al*. in (Melani *et al*.)

Information

- π: Profit (Rp)
- TR: Total Revenue (IDR)
- TC: Total Cost (IDR)

R/C Analysis

According to Soekartawi in Maulana *et al*. [10], R/C ratio refers to the ratio of cost to revenue or known as the comparison or ratio between total revenue and total output expenses which is mathematically expressed by the formula:

$$R/C\ Ratio = TR/TC$$

Information

- R/C ratio: (Revenue/Cost Ratio) comparison between revenue and costs(IDR)
- TR: Total Revenue (IDR)
- TC: Total Cost (IDR)

Decision Criteria R/C Ratio of a business or business is declared feasible or not if (Rp):

- The business makes a profit and is feasible to be increased if the R/C Ratio >1
- The business suffers a loss or is not feasible to increase if the R/C Ratio <1
- A no-profit-no-loss business is at the breakeven point if the R/C Ratio = 1

Value Added Analysis

Added value is the added value created in a product because the product is further processed in production. Added value analysis in research the Hayami method analysis. The Hayami method measures added-value by identifying the main components such as the input used, the output produced, commodity prices, product selling prices, labor costs and other input prices [9]. The following is a table of added-value analysis using the Hayami method.

According to Kipdiyah in Ariyanti and Waluyati [11], the categories of value-added decision criteria are as follows (%):

- Value added ratio in a low category if <15%
- The value-added ratio is in the moderate category if it is 15-40%
- Value added ratio in the high category >40%

RESULTS

Sidoarjo Regency is one of the governments in East Java Province. The astronomical location of the Sidoarjo Regency area is between 112.5° - 112.9° East Longitude (BT) and 7.3° - 7.5° South Latitude (South Latitude). Sidoarjo is bordered by Surabaya City and Gresik Regency in the north, Pasuruan Regency in the south, Madura Strait in the east and Mojokerto Regency in the west.

The specific scope studied in this study is in Kedungluk Village, Candi District, Sidoarjo Regency. The total area of Candi District is 406.73 ha. Kedungluk Village has an area of 1209.67 ha and the eastern village is in Candi District, Sidoarjo Regency, whose people earn income from brackish fish and shrimp pond farmers. The natural situation in Kedungluk Village is surrounded by brackish water ponds which have an area of 1,200 hectares. The distance from the Village to the District is approximately 10 km which can be reached by motorbike at 45 km/hour. The northern and eastern boundaries of Kedungluk Village are Gebang Village, the southern part is Banjar Panji Village and the western part is Kalipecabean Village.

General Description of Milkfish Agroindustry Ms. Lina

Mbak Lina's milkfish agro-industry is an agro-industry that was started in 2007 by Mrs. Marlina who was assisted by her husband who worked as a pond farmer. The establishment of this business was based on the abundance of sources of raw materials, namely milkfish around Mrs. Marlina's residence and the processing site, namely in Kedungluk Village, so that in terms of the quality of the fresh fish to be processed the quality is also maintained and the price of the raw materials obtained is cheaper because Mrs. Lina's husband buys From her pond farmer friends, Mrs. Marlina chose to process milkfish into derivative products, namely milkfish presto and milkfish otak-otak because these products are durable.

The owner of this business is Marlina's mother, who is 49 years old. When starting her business, Marlina's mother was assisted by her husband to process fish into presto milkfish and then developed to process milkfish otak-otak. This agro-industry is an agro-industry that processes agricultural or fishery products into new products with a total of 5 workers.

Profit Analysis and R/C Analysis

Cost Analysis

Fixed Cost: Fixed costs or total fixed costs that are included in the category of fixed costs are the cost of depreciation of production equipment and land and building taxes. The

cost of depreciation of the means of production can be determined using the straight-line method. The fixed costs required by Mbak Lina's milkfish agroindustry in one production process are shown in the table 2.

The fixed costs incurred for processing presto milkfish consist of equipment depreciation costs and land and building taxes. Fixed costs incurred in processing presto milkfish, namely the cost of depreciation of equipment in the form of simple equipment and have an economic life of between 2 - 7 years amounting to Rp. 15,168, - in one production, while the land and building tax issued is Rp. 169, - in one production obtained from land and building tax Rp. 65,000, - per year divided for 12 months and divided again by each month of production 8 times than taken 25% of 100% of the total milkfish capacity processed for each production so that the total fixed costs obtained Rp. 15037, - while the fixed costs incurred for the processing of milkfish otak-otak consist of depreciation costs for equipment and land and building taxes. The fixed costs incurred in processing milkfish otak-otak, namely the cost of depreciating equipment in the form of simple equipment and having an economic life of between 2 - 5 years is Rp. 32,892, - in one production, while the cost of land and building taxes incurred is Rp. 508. - in one production, Rp. 65,000. per year divided by 12 months and divided again by 8 times each month of production and then taken 75% of 100% of the total milkfish capacity that is processed for each production so that the total fixed cost is IDR 33,400.-. The fixed costs incurred in processing milkfish otak-otak, namely the cost of depreciating equipment in the form of simple equipment and having an economic life of between 2 - 5 years is Rp. 32,892, - in one production, while the cost of land and building taxes incurred is Rp. 508. - in one production, Rp. 65,000. per year divided by 12 months and divided again by 8 times each month of production and then taken 75% of 100% of the total milkfish capacity that is processed for each production so that the total fixed cost is IDR 33,400.-. The fixed costs incurred in processing milkfish otak-otak, namely the cost of depreciating equipment in the form of simple equipment and having an economic life of between 2 - 5 years is Rp. 32,892, in one production, while the cost of land and building taxes incurred is Rp. 508. - in one production, Rp. 65,000. per year divided by 12 months and divided again by 8 times each month of production and then taken 75% of 100% of the total milkfish capacity that is processed for each production so that the total fixed cost is IDR 33,400.-. - in one production, Rp. 65,000. per year divided by 12 months and divided again by 8 times each month of production and then taken 75% of 100% of the total milkfish capacity that is processed for each production so that the total fixed cost is IDR 33,400. in one production, Rp. 65,000. per year divided by 12 months and divided again by 8 times each month of production and then taken 75% of 100% of the total milkfish capacity that is processed for each production so that the total fixed cost is IDR 33,400.

Variable Cost

Variable costs or commonly known as total variable costs (total variable costs, TVC) are production costs that change depending on how large or small the quantity is to be produced. The higher the variable costs, the higher the output of goods produced. Cost. The variables incurred in the processing of milkfish into presto milkfish and otak-otak consist of raw material costs for milkfish, costs for supporting materials for packaging, electricity and water costs, transportation costs and labor costs. The following are the variable costs incurred in processing presto milkfish and otak-otak milkfish.

The cost incurred by Mbak Lina to buy 100 kg of milkfish in one production process is Rp. 2,700,000. The highest variable cost to be incurred is the cost of the main raw material, namely milkfish. High raw material costs are directly proportional to the output price received, meaning that the higher the raw material costs incurred, the higher the output price produced.

Auxiliary materials for presto milkfish processing cost Rp. 409,600 in the form of (eggs, cooking oil, kaffir lime, galangal, bay leaves, lemongrass, tamarind, yellow seasoning, salt, chili, shallots, garlic, flavorings, 3 kg LPG) while milkfish otak-otak is Rp. 1,474,100 in the form of (eggs, cooking oil, complete seasoning, sugar, salt, flavorings, banana leaves and 3 kg LPG).

The cost of packaging used in presto milkfish processing is Rp. 75,000 and milkfish otak-otak is Rp. 255,000 with a price of Rp. 600/pcs, the total packaging required for processing milkfish presto and milkfish otak-otak is 500 pcs for each production. The owner of the agro-industry chooses the packaging of milkfish presto and otak-otak using plastic which is covered with cardboard for each fish, which is then given cardboard for the outer layer. The outer cardboard packaging for milkfish otak-otak provides information to consumers and attracts consumers.

Table 2: Fixed Costs of Milkfish Presto and Otak-Otak Agroindustry per One Production Process

No	Description	Milkfish Presto(Rp)	Milkfish Brain(Rp)
1.	Equipment depreciation costs	15.168	32,892
2.	Property tax	169	508
Total		15037	33,400

Source: Primary data processed, 2023

Table 3: Variable Cost of Milkfish Mbak Lina Agroindustry per One Production Process

Description	Presto milkfish variable cost (Rp)	The variable cost of milkfish otak-otak (Rp)
Cost of raw materials (milkfish)	675,000	2,025,000
Cost of auxiliary materials	409,600	1,474,100
Packaging costs	75,000	225,000
Electricity and water costs	10,000	30,000
Transportation costs	20,000	60,000
Labor wage costs	50,000	255,000
Total	1,229,600	4,069,100

Source: Primary data processed, 2023

Table 4: Total Cost of Mbak Lina's Milkfish Agroindustry per One Time Production process

Description	Total Fixed Costs (Rp)	Total Variable Cost (Rp)	Total Cost (Rp)
Milkfish presto	15037	1,239,600	1,254,637
Milkfish brains	33,400	4,069,100	4,102,500
Total	48,437	5,308,700	5,357,137

Source: Primary data processed, 2023

Table 5: Calculation of Acceptance of Milkfish Presto and Otak-Otak per One Production Process

Description	output(Q)	Output price/ kg (P)	Acceptance (TR)
Milkfish presto	25 kgs	Rp. 65.000, -	Rp. 1.625.000, -
Milkfish brains	75 kgs	Rp. 75.000,-	Rp. 5.625.000,-
Total	100 kgs	Rp. 140.000,-	Rp. 7.250.000,-

Source: Primary data processed, 2023

Table 6: Calculation of Total Costs, Revenues and Profits per One Time of Production

Description	Total Cost (TC)	Acceptance (TR)	Gain (π)
Milkfish presto	Rp. 1,254,637	Rp. 1,625,000	Rp. 370,363
Milkfish brains	Rp. 4,102,500	Rp. 5,625,000	Rp. 1,522,500
Total	IDR 5,357,137	Rp. 7,125,000	Rp. 1,892,863

Source: Primary data processed, 2023

Table 7: Calculation of R/C Ratio of Milkfish Presto and Brains per Production

Description	Milkfish presto	Milkfish brains	Total
Acceptance (TR)	Rp. 1,625,000	Rp. 5,625,000	Rp. 7,125,000
Total Cost (TC)	Rp. 1,254,637	Rp. 4,102,500	Rp. 5,357,137
Gain (π)	Rp. 370,363	Rp. 1,522,500	Rp. 1,767,863
R/C Ratio	1.29	1.37	1.33

Source: Primary data processed, 2023

Table 8: Added Value of Milkfish Presto Agroindustry and Brains per One Production Process

No	(Input, Output, Price)	Notation	Milkfish Presto	Milkfish brains
1.	output(kg)	A	25	75
2.	Inputs(kg)	B	25	75
3.	Labor (HOK)	C	2	9
4.	Conversion Factor	D = A / B	1	1
5.	Labor Coefficient (HOK/kg)	E = C / B	0.08	0.12
6.	Output Price (Rp/kg)	F	65,000	75,000
7.	Labor Wages (Rp/HOK)	G	25,000	85,000
	Revenue and Profits			
8.	Raw Material Prices (Rp/kg)	H	27,000	27,000
9.	Contribution of Other Inputs(Rp/kg)	I	21.185	24,300
10.	Output Value (Rp/kg)	J = DXF	65,000	75,000
11.	a. Value Added (Rp/kg)	K = J – H - I	16,815	23,700
	b. Value Added Ratio (%)	L = K / JX 100%	25.86%	31.60%
12.	a. Labor Benefits (Rp/Kg)	M = EXG	2,000	10,200
	b. Labor Ratio (%)	N= M / KX 100%	11.89%	43.03%
13.	a. Profit (Rp/kg)	O = K - M	14,815	13,500
	b. Profit Rate (%)	P = O / JX 100%	22.79%	18.00%
	Reply to Owners of Factors of Production			
14.	Profit Margin (Rp/Kg)	Q =J – H	38,000	48,000
	a. Labor Income (%)	R = (M/Q) x 100% S=(I/Q)x	5.26%	21.25%
	b. Contribution of Other Inputs (%)	100%	55.75%	50.62%
	c. Entrepreneur Profit (%)	T = (O/Q) x 100%	38.98%	28.12%

Source: Primary data processing, 2023

The total wage cost for processing milkfish presto and otak-otak in one production is Rp. 305,000 and each person gets a salary of Rp. 25,000 for presto milkfish processors and Rp. 85,000 for otak-otak milkfish processors. The total workforce in Mbak Lina's milkfish agro-industry is 5 people, the workforce needed in processing milkfish Presto is 2 people because each production processes 25 kg while the labor needed in processing milkfish otak-otak is 3 people, more labor because the processing takes longer. The workers who process milkfish come from outside and are family members who own the agro-industry. Family workers are family members of agro-industry owners and outside workers are neighbors of agro-industry owners.

The cost of electricity and water needed in this agro-industry changes because it adjusts the use of PDAM water in accordance with the Health Service regulations used in washing fish. The cost of electricity and water needed to process presto milkfish is Rp. 10,000 and otak-otak Rp. 40,000, the cost of electricity and water required for each production process requires Rp. 50,000.

Transportation costs are costs used to purchase supporting materials and distribute products to stores. The total cost of transportation in processing milkfish presto and milkfish otak-otak is Rp. 80,000 per production. The distribution of transportation costs uses a percentage of total production capacity, namely milkfish presto 25% and milkfish otak-otak 75%.

Total Cost

Total Cost or Total Cost (TC) is the total cost required by an agro-industry obtained from the sum of the total fixed costs or Total Fix Cost (TFC) and total variable costs or Total Variable Cost (TVC).

The total cost incurred in Ms. Lina's agro-industry is Rp. 5,357,137 in one production. The total cost of presto milkfish is Rp. 1,254,637 and milkfish otak-otak Rp. 4,102,500.

Acceptance Analysis

Total revenue (TR) is the result of multiplying the amount of presto milkfish production (Q) with the selling price (P) in rupiah units during one production process. The following is the acceptance of milkfish presto and milkfish otak-otak products.

Based on the calculations in the table above, the total processing revenue for presto milkfish is Rp. 1,625,000 for every production and processing of milkfish otak-otak, which is Rp. 5,625,000 for each production, so the total revenue for milkfish presto and milkfish otak-otak received by Ms. Lina's agro-industry is Rp. 7,250,000 in one production process.

Profit Analysis

Profit is the reduction between the total revenue obtained in one production process and the total cost. The total cost is the total cost incurred in processing milkfish presto and milkfish otak-otak. The following is a table of costs, receipts and profits in one production process.

R/C Analysis

R/C Ratio is the comparison or ratio between total revenue and production expenses. The R/C ratio is obtained from a comparison of the total acceptance and processing load of presto milkfish and otak-otak milkfish. The R/C ratio for milkfish presto, milkfish otak-otak and the total is in the table 7.

Based on these calculations, it can be explained from the calculations that the R/C ratio for presto milkfish is 1.29 and the R/C ratio for milkfish otak-otak is 1.37. According to Soekartawi in Maulana *et al*. [10], R/C > 1, then agro-industrial processing is profitable and feasible to be improved so that the processing of milkfish presto and milkfish otak-otak is profitable and worthy of improvement.

The risk in presto milkfish processing is that when the resto takes too long or is not on time it causes the fish to be too soft which causes the head to break easily, while the risk in the brain milkfish processing is damage to the milkfish skin when scraping the meat you have to be careful because at the time of insertion, the meat returned more difficult because the skin of the fish was torn and then from the selection of the two milkfish which are soft or secrete a lot of mucus, when frying the fish is not cooked golden yellow but black but in terms of taste there is no difference it is just not attractive for sale, with With this condition, Selling price of the product affects so that the agro-industry owner chooses to reduce prices and retain customers. The risk of agro-industrial milkfish processing occurs at every stage, starting from fish selection and fish processing.

Value Added Analysis

Analysis of added value in Mbak Lina's milkfish agro-industry business uses the Hayami method in this table, the calculation of added value per kilogram of raw material in one production process. The amount of added value generated is listed in Table 8.

Input, Output and Prices

The input used in processing milkfish derivative products is fresh milkfish. The amount of input used in processing presto milkfish is 25 kg of fresh milkfish which can produce an output of 25 kg while milkfish otak-otak is 75 kg of fresh milkfish which can produce an output of 75 kg in one production process. Every 1 kg of milkfish containing 5 milkfish can produce an output of 1 kg of presto milkfish, this is because, in the processing process, there is only the addition of spices which causes presto milkfish and otak-otak milkfish to have a higher selling price than selling fish that have no value. he added and this processing has a spicy taste, distinctive aroma and attractive packaging.

The workforce needed is 2 people from outside workers to process milkfish presto and 3 people from outside workers and family members to process milkfish otak-otak. The number of workdays (HOK) in presto milkfish processing is 2 HOK per production process, while in the processing of milkfish otak-otak, it is 9 HOK per production process. The conversion factor is received through the quotient between the number of outputs and the number of inputs. The conversion factor for milkfish presto is 1 and milkfish otak-otak is 1, meaning that every 1 kg of fresh milkfish can produce 1 kg of milkfish products or milkfish otak-otak.

The labor coefficient is the amount of labor (HOK) required to process 1 kg of processed products which is obtained from the quotient between the labor (HOK/one production) and the input (kg/one production) used in the production process. The labor coefficient for the presto milkfish processor obtained is 0.08, this implies processing 1 kg of fresh milkfish raw ingredients, requires 0.08 HOK workers. The labor coefficient for milkfish otak-otak obtained is 0.12, which means that processing 1 kg of fresh milkfish raw material requires a workforce of 0.12 HOK. The need for labor in processing depends on the size of the input produced because the processing is carried out in Most of this agro-industry still uses manual techniques that are carried out by human power, not machines.

The output price of presto milkfish is Rp. 65,000/ kg while the output price of milkfish otak-otak is Rp. 75,000/kg. This selling price adjusts to the agreed market price between regular customers, shop owners and agro-industry owners. The selling price between regular customers and direct consumers is the same because the location of the agro-industry is a little far from the city, so if consumers directly want to buy from the agro-industry it takes a little time to get to that location.

The wage for presto milkfish processing workers is Rp. 25,000/ HOK while milkfish otak-otak is Rp. 85,000/HOK. The wages for processing presto milkfish and otak-otak milkfish are differentiated because the production process for milkfish otak-otak is more difficult and longer than that of presto milkfish processing.

Revenue and Value Added

The price of raw materials sold from pond farmers to agro-industry owners is Rp. 27,000/ kg which has been agreed

upon between the two parties. This price is relative because it is purchased directly from pond farmers, when there is a big harvest of milkfish, the price of milkfish can be even cheaper, however, during a lean season, raw materials are relatively expensive and raw material prices can change due to seasonality and weather factors.

The total of all other input contributions yields further contributions supporting materials used in the production process, excluding raw and labor costs. Other input contributions consist of the sum of the costs of supporting materials, packaging costs, electricity and water costs, transportation costs and fixed costs which include equipment depreciation costs and land and building taxes that occur in one production process by dividing the total output produced once. production. Other input contributions needed in the presto milkfish processing are Rp. 21.185/kg. Other input contributions needed in the production process of processing milkfish otak-otak are Rp. 24,300/kg.

The output value is obtained from the product price multiplied by the conversion production factor of Rp. 65.000/kg where every 1 kg production of fresh milkfish can produce Rp. 65,000, - from the sale of presto milkfish. The output value in the processing of milkfish otak-otak is Rp. 75.000/kg where every 1 kg production of fresh milkfish can produce Rp. 75,000, - from the sale of milkfish otak-otak. The output value shows the value of milkfish products that production units of rupiah per kg. The output value is also the gross income received by the agro-industry owner.

The added value for presto milkfish processing is Rp. 16,815, -/ kg, while the added value received by milkfish otak-otak is Rp. 23,700. Added value is obtained from reducing product value, contributions from other inputs and raw material prices. This added value is added value without labor compensation. The added value ratio is the comparison between the added value and the output value. The added value ratio of presto milkfish obtained was 25.86% and the added value ratio of milkfish otak-otak was 31.60%. Based on the results of Hayami's analysis, there is an added value ratio of milkfish presto of 25.86% and milkfish otak-otak of 31.60%, which means that the added value received is in the medium category because it is > 15%.

The direct labor reward is the product of the labor coefficient and the fees paid to the labor force. Direct labor benefits are receipts received directly by workers from agro-industry owners for each processing of 1 kg of milkfish raw material. The compensation for labor received in presto milkfish processing is Rp. 2,000 with a ratio of 11.89% while the labor compensation received by milkfish otak-otak processors is Rp. 10,200 with a ratio of 43.03%

Profits in this case can be obtained from reducing added value in exchange for labor, so it can be classified as net profit because there is a difference with employee benefits. The profit obtained in processing presto milkfish is Rp. 14,815/kg with a profit rate ratio of 22.79% while the profit obtained in processing milkfish otak-otak is Rp. 13.500/kg with a profit ratio of 18.00%, which means that it shows the large percentage received by the agro-industry owner for processed milkfish presto and milkfish otak-otak.

Compensation for Factors of Production

The margin from processing milkfish into presto milkfish is smaller than the margin obtained from processing milkfish into otak-otak milkfish. The income for processing milkfish into presto milkfish is less than processing milkfish into otak-otak milkfish. The labor income for presto milkfish is 5.26% and for milkfish otak-otak 21.25%. The fee for the owner of a factor of production for Inclusion of other means in treatment milkfish into presto is 55.75% greater than the fee for the owner of Inclusion of other means in treatment into milkfish otak-otak 50.62%. The profit for agro-industry owners from processed presto is 38.98%, while the profit for agro-industry owners from processed milkfish otak-otak is 28.12%.

According to Kipdiyah in Ariyanti and Waluyati [11], the value-added ratio is in the medium category if the ratio value is 15-40%. Based on the calculation above, the value-added ratio of presto milkfish is 25.86% and the value-added ratio of milkfish otak-otak is 31.60% so it is included in the category of moderate value-added criteria so the best decision in increasing the value-added agroindustry of milkfish presto and milkfish otak-otak Ms. Lina, namely by maintaining and better increasing the scale of production but still maintaining product quality so that it can enter the high added value category and increase the income of agro-industry actors.

CONCLUSION

Based on research and data that has been analyzed on Mbak Lina's milkfish agroindustry, the following conclusions can be obtained:

- The total profit received by the milkfish agro-industry Ms. Lina, who processes milkfish into presto milkfish and otak-otak, is Rp. 1,767,863 per production. Based on the calculation results, it was found that the R/C ratio of milkfish presto was 1.29 and the R/C ratio of milkfish otak-otak was 1.37. This means that the milkfish presto and milkfish otak-otak agro-industry are included in the decision criteria for R/C Ratio > 1 where Mbak Lina's milkfish agro-industry is profitable and feasible to develop
- The added value of presto milkfish processing is Rp. 16,815. - per kg with an added-value ratio of 25.86% and the added-value of processing milkfish otak-otak is Rp. 23,700 per kg with an added value ratio of 31.60%. The two processed milkfish are said to have moderate added value because the added value ratio is between 15% -40%

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