

Analysis of Production Costs and Business Efficiency of Processed Agro-Industrial Products of Milkfish in Woha District, Bima Regency



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ABSTRACT: The purpose of this study is to analyze the production and production costs of the efficiency of agroindustry business processed by MSME milkfish in Woha district, Bima regency, West Nusa Tenggara Province -Indonesia. The research method used was descriptive qualitative and quantitative with respondents of the milkfish processed MSME business as many as 10 business units selected using the purposive sampling method.

The results of the research from data processing and data analysis showed that the business of processing milkfish into grilled fish food that is ready to be consumed has greater income when compared to farmers who cultivate milkfish who sell milkfish products directly without processing, besides that the average level of business efficiency is above one (>1), this means that from a business analyst perspective, the MSME business of processed milkfish agroindustry is economically profitable and feasible to work on means that the agro-industry of processing milkfish into grilled milkfish between the selling price of the product and the costs of the production process is said to be efficient.

To further improve the milkfish processing agro-industry business, milkfish cultivation farmers should be able to process themselves into ready-to-eat processed foods in the form of grilled milkfish, presto milkfish and so on that can provide added value to production.,

KEYWORDS: Production Cost, Business efficiency, Agroindustri Olahan UMKM.

1. INTRODUCTION

1.1. Background

Indonesia is an agricultural country and has abundant natural wealth or natural resources and most of the Indonesian population works in the agricultural sector or natural resource processing. Economic growth is also important for the State of Indonesia because it can measure the level of output in a country's economy and also determine the extent of a country's economic activity that is measured in a certain period and the most influential sector for economic growth in an agricultural country such as Indonesia is the agricultural sector.

Industrial development also not only focuses on large industries that produce a lot of goods and sophisticated used equipment or sophisticated technology, but the construction of industries that are small in scale needs to be developed such as household businesses or small micro and medium enterprises (MSMEs). This MSME sector can revive the people's economy and can increase people's income, this can be seen during the economic crisis, the government refocuses on improving the small and medium enterprises sector of the community by means of the government providing assistance through loans with low deferred interest and the government aims to reduce the negative impact of the economic crisis for low-income population groups and loans to banks this also aims for the public to be able to trust again to borrow money from banks.

Developments in the micro, small and medium enterprises (MSMEs) sector can also play an important role in the economic growth of the Indonesian state and the MSME sector is biased to increase the level of economic growth of the Indonesian state because in the MSME sector can affect the increase in people's income.

Bima Regency, West Nusa Tenggara, is part of Indonesia which has 3 dimensions, namely coastal areas, mountains, plains. One of the natural products related to coastal areas in the Bima Regency is milkfish in the processing of milkfish, there are many agroindustry entrepreneurs whose industrial scope is small or MSMEs who process milkfish or milkfish processing entrepreneurs.

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Milkfish farming is in great demand by many people in coastal areas because the advantages of milkfish processing are quite satisfactory and when the harvest season arrives there will be many milkfish stocks in the market.

Table 1. Number of milkfish entrepreneurs in Bima Regency

No.	Description	Total (Person)	Percentage (%)
1	Number of Responden	40	100
2	Age Range (years)		
	15 - 30	6	15
	31 - 46	14	35
	47- 62	20	50
	Average (Years)	46	100

Looking at the data on the number of milkfish MSME businesses in WoHa district, Bima Regency, Nusa Tenggara Province, it is necessary to conduct a study in a study whose purpose is to analyze agro-industrial products processing milkfish as one of the superior products for milkfish farmers in Bima Regency, West Nusa Tenggara. In Bima Regency, WoHa is a milkfish producing area. In the processing of milkfish, inputs are needed such as raw materials, namely fresh milkfish, supporting raw materials, the use of equipment, and labor that will produce output, namely grilled milkfish. From the proceeds from the sale of the output of grilled milkfish, receipts will be obtained. Revenue is derived from total receipts after deducting production costs.

1.2. Problem Formulation

1. How big is the production rate and production costs of UMKMikan bandeng in WoHaWoHa district?
2. How big is the income level of the milkfish business in WoHa district?
3. What is the level of production efficiency of milkfish MSME business in WoHa district, Bima Regency

1.3. Goals And Benefits

1.3.1. Purpose

1. To find out how big the production rate and whitefish in WoHa.
2. To analyze how big the level of production costs and income of milkfish business in WoHa district, Bima Regency.
3. To find out how big the level of efficiency of the milkfish business in WoHa district, Bima Regency

2. THEORETICAL FOUNDATIONS

2.1. Definition of MSMEs

MSMEs or Micro, Small and Medium Enterprises are productive businesses owned by individuals and business entities that have met the criteria as micro-enterprises. As well as the Presidential Decree of the Republic of Indonesia number 99 of 1998, the definition of Small Business is: "Small-scale economic activities of the people with business fields that are mostly small business activities. And it needs to be protected to prevent from unfair business competition."

2.1.1. Understanding MSMEs According to Experts

The following are some expert opinions that explain the definition of MSMEs, including:

1. Kwartono

According to Kwartono , it that the definition of MSMEs is the economic activity of the people who have a maximum net worth of Rp. 200,000,000, - where tana and business buildings are not taken into account. And or those who have an annual sales turnover of at most RP1, 000,000,000 and belong to Indonesian citizens.

According to Rudjito, it that the definition of MSMEs is a business that has an important role in the Indonesian economy, both in terms of the jobs created and in terms of the number of businesses.

Ina Primiana argues that the definition of MSMEs is the development of four main economic activities that are the driving force of development Indonesia, namely Manufacturing Industry, Agribusiness, Marine Business, Human Resources

In addition, Ina Primiana also said that MSMEs can be interpreted as the development of a mainstay area to accelerate economic recovery to accommodate priority programs and the development of various sectors and potentials. And while small businesses are an increase in various community empowerment efforts.

2.3. Criteria for MSMEs according to Law Number 20 of 2008

1. Micro Enterprises

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The definition of micro-enterprise is defined as a productive economic business owned by individuals and business entities in accordance with the criteria for micro-enterprises. And businesses that are included in the criteria for micro-enterprises are businesses that have a net worth of Rp. 50,000,000, - and do not include buildings and land for business premises. Have the proceeds of micro business sales every year at most Rp. 300,000,000

2. Small Business

The definition of small business is a productive economic business that is independent or independent whether owned by individuals or groups and not as a branch business entity of the main company that is controlled and owned and becomes part either directly or indirectly of medium enterprises. A business that is included in the criteria for a small business is a business that has a net worth of Rp. 50.000.000,- with the maximum required reaching Rp 500.000.000,-. Have business sales proceeds every year between Rp. 300,000,000 to a maximum of Rp. 2,5,000,000,000,-.

3. Medium Enterprises

The definition of a medium-sized enterprise is a business in a productive economy and is not a branch or subsidiary of a central company and becomes part directly or indirectly. For a small business or large business with a total net quality as regulated by laws and regulations. A medium-sized business is often categorized as a large business with the criteria for net worth owned by business owners reaching more than Rp. 500,000,000 to Rp. 10,000,000,000, - and does not include buildings and land for business premises. And the annual sales proceeds reached IDR 2.5.000.000,- billion to IDR 50.000.000.000,-. (azqira: 2021)

2.2. Production Theory

Production is the end result of economic processes or activities by allocating inputs. The technical relationship between input and output in the form of an equation is called a production function (Joesron, 2003:75). A production function is an equation that shows the maximum number of outputs produced by an input-input combination. According to Soekartawi (2011:204) the production function is the physical relationship between the described variables

(Y) which is the result of production and the variable that explains (X) which is the factor of production. In a simple mathematical form of the factor of production can be written as follows:

$$Y = (X_1, X_2, \dots, X_n). \quad (2.1)$$

Where:

Y = production output

X₁, X₂, . . . X_n = factors of production.

In economic theory there is one basic assumption regarding the nature of the production function, that is, the production function of all production in which all producers are considered subject to a law called: The Law Of Diminishing Returns. This law says that if the factor of production continues to be increased by one unit, at first the total production will increase more and more, but after reaching a certain level of production the addition will decrease further and eventually reach a negative value (Sukirno, 2008:196).

2.3. Acceptance of production

Revenue (Revenue) is the total income received by the producer in the form of money obtained from the sale of goods produced. Some concepts of acceptance. is as follows:

1. Total Revenue (TR)

TR is the complete receipt received by the manufacturer from the proceeds of sales. Systematically it can be formulated as follows:

$$TR = P \times Q$$

2. Average Revenue (AR) AR is the producer's receipt per unit of goods he sells. Systematically it can be formulated as follows:

$$AR = TR / Q$$

3. Marginal Revenue (MR)

MR is an increase in total receipts caused by additional sales of 1 unit. Systematically it can be formulated as follows:

$$ATR = MR / \Delta Q$$

2.4. Production Costs

The cost of production is all expenses of an enterprise to acquire a factor of production that will be used to produce goods of production by such an enterprise. For the analysis of production costs, it is necessary to pay attention to two timeframes, namely (1) long-term, that is, the period during which all production factors can undergo changes and (2) short-term, that is, the period of time during which some factors of production can change and some others are immutable. In this chapter only short-term production costs are discussed

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Production costs can be divided into two types, namely (1) Fixed costs and (2) Variable costs. In the analysis of production costs it is necessary to pay attention to (1) costs fixed costs and (2) Variable costs. In the analysis of production costs it is necessary to pay attention to (1) average production costs : which include average total production costs, average fixed production costs, and average variable costs ; and (2) marginal production costs, i.e. additional production costs that must be incurred to add one unit of production. So, in terms of the nature of costs in relation to the level of output, the costs of production can be divided into:

(1) Total Cost (Total Cost = TC) . The total cost is the overall cost incurred to produce production.

$$TC = TFC + TVC$$

Where TFC = total fixed cost; and TVC = total variable cost.

(2) Total Fixed Cost (total fixed cost = TFC). Total fixed costs are the overall costs incurred to obtain a production factor that is not subject to change in quantity. Example: the cost of purchasing machinery, building factories, building road infrastructure to the factory, and so on.

1. Total Variable Cost (total variable cost = TVC). Total variable costs are the overall costs incurred to obtain variable factors of production. Examples of variable costs: labor wages, the cost of purchasing raw materials, the purchase of engine fuel, and so on.

2. Average Fixed Cost (AFC).

Average fixed costs are total fixed costs divided by the amount of production.

$$AFC = TFC / Q$$

(where Q = output level)

3. Average Variable Cost = AVC). Average variable costs are total variable costs divided by the amount of production.

$$AVC = TVC/Q$$

4. Average Total Cost = AC). The average total cost is the total cost divided by the amount of production.

$$AC = TC/Q \quad ,,,, \quad \text{or } AC = AFC + AVC. Q$$

5. Marginal Cost (MC). Marginal costs are additional production costs that are used to increase production by one unit.

$$MC = \Delta TC / \Delta Q$$

2.5. Income Theory

According to the pioneers of classical economics, Adam Smith and David Ricardo, the income distribution is classified in three main social classes: workers, owners of capital and landlords. All three determine 3 factors of production, namely labor, capital and land. The income received by each factor is considered to be the income of each trained family against the national income. Their theory predicts that once society gets ahead, the landlords will be relatively better and the capitalists (owners of capital) will become relatively worse.

1. Definition of Income

According to Jhingan, income is income in the form of money over a certain period. Therefore, income can be interpreted as all income or causing an increase in a person's abilities, both used for consumption and for savings. With such income is used for the purposes of life and to achieve satisfaction.

According to Mankiw, it is stated that individual income (personallIncome) is income received by households and businesses that are not companies. Individual income also reduces corporate income tax and contributions to social benefits. In addition, individual income also calculates the interest income received by households derived from ownership of state debt and also income that households receive from government transfer programs as social benefits.

According to Soekartawi, the analysis of income is revenues reduced by all costs incurred in production. To calculate the income of the farm business can be used the following formula:

$$Pd = TR - TC \quad TR = Y \cdot Py$$

$$TC = FC + VC$$

Where:

PD : Farm income

TR : Total Receipts (total reventue) TC : Total cost (total cost)

FC : Fixed cost

VC : Variable cost

Y : Production obtained in a farm business (output) Py : Output price

Income in this case is the amount of money earned or received by the company from an activity, almost all from the proceeds of the sale of products or services.

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2.6. Business efficiency

Efficiency is the ratio of output and input, and the comparison between input and output.

According to Soekartawi (2006), farm efficiency can be measured by calculating technical efficiency, price efficiency and economy. The use of a factor of production is said to be technically efficient if the factor of production used produces maximum production. It is said to be price efficient if the value of the product is equal to the price of the production in question and it is said to be economically efficient if the farming business achieves technical efficiency as well as economic efficiency. To measure the ratio between receipts and costs is expressed using the formula R /C ratio (Return and Cost Ratio). This can be explained as follows:

1. If the results of the analysis provide R/C ratio > 1, then the farming or business carried out is declared efficient and profitable.
2. If the results of the analysis give R/C ratio = 1, then the farming business or business carried out is declared efficiently and profitable and also does not suffer losses.
3. If the results of the analysis provide an R/C ratio of < 1, then the farming business or business carried out is declared inefficient and unprofitable and or the business has suffered a loss.

For more details, mathematically the analysis of R / C ratio can be formulated as follows:

$$TR = P \times Q$$

$$TC = FC + VC$$

$$R/C \text{ ratio} = TR / TC$$

$$R/C \text{ ratio} = (P \times Q) / (FC + VC)$$

Information:

R/C ratio = Cost efficiency

TR = Total receipts (Rp)

TC = Total cost (Rp)

P = Output price (Rp)

Q = Number of outputs (kg)

FC = Fixed cost (Rp)

VC = Variable costs (Rp)

The simplest benchmark that can be used to determine the efficiency of a farming business is the R/C ratio (Revenue Cost Ratio). Although there is no specific measure for the R/C value of this ratio, it is generally stated that if the R/C value of the ratio ≤ 1 means that the farming activity is failing, if the R/C value ratio = 1, then the farming activity does not lose, if the R/C value of the ratio > 1, then the farming activity is successful or profitable. Factors that affecting the efficiency of farming are costs, receipts, and profits. Theoretically with R/C ratio = 1 means breakeven, but due to the presence of farming costs that are sometimes not calculated, the criteria can be changed according to the researcher's beliefs. For example, the R/C ratio of >1 of a new farming business can be said to be profitable if it reaches a minimum of 1.5 or even 2.0

3. RESEARCH METHODS

3.1. Research Approach

This research uses qualitative and quantitative methods, this method provides a comprehensive picture of an event or problem that develops in society in qualitative research procedures can produce descriptive data such as data with written words or behaviors observed in everyday life and orally, while quantitatively the data in the form of figures calculated from the results of this study and is expected to provide an overview of the development of MSME businesses in the processed agro-industrial products of milkfish in the Bima regency area.

3.2. Research Design

The writing of this research uses qualitative methods with a case study approach. In this approach to case studies better understand a case, a specific person or a situation in depth (Creswell, 2014). The reason for writing the research using this method is because by using this case study method, the research will get a clear picture of the development of the number of milkfish processed entrepreneurs in the Bima Regency area.

3.3. Data Collection

The purpose of data collection is to obtain clear information about problems or developments that occur related to the research carried out. In this study, the authors used data collection by:

1. Observation

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Observe directly with the five senses an event in the field or field observation. This method aims to provide information directly about events that occur in the premises research and provide an overview of the conditions of development that are taking place.

2. Interview method

Interviewing is a live or oral Q&A process in which two or more people meet face to face and listen directly to the information that will be obtained. The interview method used will use a structured interview, where the researcher has prepared what he wants to ask later or other words koesener.

3. Secondary data collection method (documentation method)

The documentation method is that the researcher gets data about the information studied is not directly, namely there are parties to both such as from books, notes or transkrip, and can be data from regional offices.

3.4. Location Determination

This research was conducted in the Woha kecamatan area, Bima regency in the coastal area in the Woha area of Bima regency, arguing that the residents of the coastal area mostly run anagroindustry business processing milkfish as a superior product in the city of Bima. Meanwhile, the time for the study to be carried out began in October 2021.

3.5. Data Collection Methods

In this study, researchers used the observation method, interviews and document studies or called observation is an activity of focusing attention on the object's body by using all five senses so in this observation is to make observations as a tool for collecting observed data and recording everything that occurs systematically. In this case, researchers in addition to making direct observations to the Woha kecamatan area, Bima regency are more whose place is in the coastal area or in other words, the researcher goes directly to the field to obtain valid data from respondents. In addition, researchers also use interview methods that have been structured, namely with the help of questionnaires to get the desired data.

3.6. Validity of Data

To avoid errors in the data analyzed, the validity of the data is very necessary so that the data in qualitative research can be accounted for the authenticity of the data. The research tests this data with a credibility test or a confidence test on the data from the research results carried out so that researchers do not hesitate in the data studied and credibility tests can be carried out by extending observations, increasing accuracy in the study, in research, and checking data from various sources so that the data is completely valid.

3.7. Data Analysis

The data analysis used in this study is qualitative and quantitative analysis. Qualitative analysis is used to get an overview of the condition of the agro-industrial business. Quantitative analysis used to see business analysis and some calculations carried out in this study. Quantitative analysis in the form of cost analysis, receipts, profits, profitability, business efficiency analysis and added value.

1. Acceptance analysis

Total Revenue (TR) is the entire receipt received by the manufacturer from the proceeds of sales. Systematically it can be formulated as follows:

$$TR = P \times Q$$

Where: TR = Total Revenue / receipts (Rp/month) P = Price (Rp)

Q = Quantity

2. Cost Analysis

Total costs are the sum between total fixed costs (TFC) and total variable costs (TVC). The formulation of the total cost is as follows:

$$TC = TFC + TVC$$

Information:

TC = Total cost of tofu agro-industry business (Rp/month)

TFC = Total fixed costs of tofu agro-industry business (IDR/month)

TVC = Total variable costs of tofu agro-industry business (IDR /month)

The depreciation cost of equipment is calculated by the straight-line method with the following formula:

$$HP - NS$$

Depreciation = $\frac{HP - NS}{n}$

Information:

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HP = Acquisition price (cost)

NS = Residual value (residual)

n = Estimated production results (units)

3. Profit / Income (Profit)

The profit of the business of the tofu entrepreneur is the final result of receipts reduced by the total cost of production. Mathematically the profit is written by the formula:

$$\pi = TR - TC$$

Information:

π = Profit (Rp/month)

TR = Total Receipts (Rp/month)

TC = Total Cost (Rp/month)

Furthermore, determine the profitability of the milkfish business. Profitability is a comparison between the profit from the sale of tofu and the total cost of tofu expressed in percentage terms. Mathematically it can be formulated as follows:

$$\text{Profitability} = \pi / TC \times 100 \%$$

Information:

π = agro-industry business profit (Rp/month)

TC = Total tofu agro-industry business cost (Rp/month)

Information:

π = Agro-industrial business profit (Rp/month)

TC = Total agro-industrial business costs (Rp/month)

According to Gasperz (1999) in Santi (2009) the criteria used in profitability assessment are:

- Profitability > 0 means agro-industry knows what tofu is being cultivated auspicious.
- Profitability = 0 means

Agro-industry know what's being worked on experienced a Break Even Point (BEP).

- Profitability < 0 means that agro-industry knows that the cultivated is unprofitable.

4. Business Efficiency Analysis

The calculation of business efficiency used is the Revenue Cost Ratio (R / C Ratio). R/C Ratio is a comparison between receipts and costs. Mathematically it can be written as follows:

Total Admission (TR)

R/C ratio

Total Cost (TC)

Where:

o If $R/C > 1$ then agro-industrial businesses know it is profitable to cultivate.

o If $R/C < 1$ then agro-industrial business knows that it is not profitable to be cultivated.

o If $R/C = 1$ then the agro-industrial business knows the breakeven, that is, the effort to provide an amount of receipts equal to the amount issued.

4. RESULTS AND DISCUSSION

4.1. Overview of research areas

Research on this superior processed product was carried out in Bima kecamatan Woha district. Bima Regency is a coastal area directly adjacent to the sea. Donggo Subdistrict located in O'o Village has an altitude of about 714.00 m above the surface Hal makes Donggo District a District with a location of altitude above sea level.

In Bima district, there are also 18 sub-districts. Sanggar Subdistrict and Tambora Subdistrict are the districts located furthest from the government center of Bima Regency, where the distance is about 360 km and 255 km, respectively. In addition, these two sub-districts are the largest sub-districts in Bima Regency with an area of 477.89 km and 672.82 km², respectively.

1. Woha's Kecamatan Profile

The area of Woha District with an area of 105.57 km² is divided into 15 villages, the largest village is Keli village and the smallest is Naru village. As the administrative center of Woha District, Tente village is located at a distance of 19.9 km from the capital of Bima Regency with an altitude of 17 meters above sea level. Among the 15 villages, Pandai village is the village with the farthest

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distance (± 10.8 km) from the sub-district capital. The area of Woha Subdistrict to the North is bordered by Bima Bay, the south is bordered by Monta District, the west is bordered by Bolo District and it is bordered by Belo and Palibelo Districts to the East.

a. Boundaries

☐ North Subdistrict: Bima Bay

☐ South of Monta District West: Bolo District

☐ East: Belo and Palibelo Districts

b. Large Area

Woha Subdistrict Area of 105.57 Km² and consists of 15 Villages

c. Altitude from Sea Level
The height of the capital of Woha District from sea level is about 17 meters

4.1.1. Production Prose

In this study using two superior processed products, namely milkfish from milkfish farming and grilled milkfish, how to process and buidaya milkfish can be seen as follows:

1. Processing Grilled Milkfish

a. andeng greased with fine marinade. Allow the marinade to infuse for at least 1 hour.

b. Puree the grilled spices except for sweet soy sauce and broth. Sauté until fragrant.

c. Add soy sauce and mushroom broth. Taste correction.

d. Apply to fish, bake with medium coals. Back and forth. Smear back on both sides. Wait for it to cook.

2. Milkfish Farming

a. Determining the Location of the Pond or Pond

The first step in carrying out milkfish farming is to determine the location of the pond or pond (according to the type of milkfish, fresh or brackish).

b. Preparing a Pond or Pond

c. . Add soy sauce and mushroom broth. Taste correction.

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2. Milkfish Farming

a. Determining the Location of the Pond or Pond

The first step in carrying out milkfish farming is to determine the location of the pond or pond (according to the type of milkfish, fresh or brackish).

b. Preparing a Pond or Pond

c. Preparing seeds

Not originally, the stocking of fry in the cultivation of whitefish, must also be in accordance with the following factors:

Stocking Density: Before stocking, at least you should take into account the one adjusted to the size of the consomsi by the method of enlargement of the fish. For the traditional enhanced method, the usual stocking density is 2-3 heads / m². For the duration of its maintenance is approximately 4 months.

Logging time:

The next stage in the cultivation of whitefish is to prepare the fry. The preparation of fry here is also not original, in order to be able to produce quality whitefish

d. Seed Stocking

Not originally, the stocking of fry in the cultivation of whitefish, must also be in accordance with the following factors:

Stocking Density: Before stocking, at least you should take into account the one adjusted to the size of the consomsi by the method of enlargement of the fish. For the traditional enhanced method, the usual stocking density is 2-3 heads / m². For the duration of its maintenance is approximately 4 months.

Logging time:

e. Feeding

Not only humans, but fish also need food. Feeding here is also one of the important steps in the cultivation of whitefish. In fact, feed will also affect the growth of fish, the cultural environment, to have physiological and economic impacts. However, excess feeding can also result in poor water quality, because it causes too much organic matter to settle.

f. Care and Maintenance

Not only providing feed, to produce quality milkfish farming, you also have to do care and maintenance. Care and maintenance of whitefish here, you can do it with pest control. The reason is, in a schistem, there are usually pests and diseases that can attack milkfish fry. These types of pests can be predatory fish, crabs, eels, water snakes, birds and much more.

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g. Harvest

Where after the milkfish reaches a consumptive size, the milkfish can be harvested. Usually, fish harvesting is carried out gradually (selectively), or it can be in total or all at once.

4.1.2. Product marketing

In this processed prodak, the producers of grilled milkfish market directly where they sell and are not delivered to figures or markets or other words the manufacturer sells its products directly. Milkfish farming prodak the producers market their products to the market or retail sellers and also these producers sell the prodak directly in the pond (milkfish farming place) when consumers come directly to the pond place and usually the producers sell their products below to the market.

4.2. Production Costs

Production costs are costs incurred by an effort to make a processed product. In this study, the processed milkfish program uses variable costs and fixed costs to find out how much production costs are incurred by milkfish entrepreneurs in Kabupaten Bima. For more details in knowing the variable costs and biaya a remains can be seen as follows:

Table 1, Price, and Business Income for processing grilled milkfish and Milkfish Farming

No	Nama Responden	(Q)	Price(P) (IDR)	Total Revenue TR = Q x P (IDR)	Total Cost (TC) (IDR)	Nett Income H = TR – TC (IDR)
1	Ainun Saliama	210	120,000	25,200,000	8,595,000	16,605,000
2	Isna	540	110,000	59,400,000	21,435,000	37,965,000
3	Suharti	300	110,000	33,000,000	10,663,000	22,337,000
4	Safiah	420	110,000	46,200,000	16,265,000	29,935,000
5	Jihan	240	120,000	28,800,000	10,017,000	18,783,000
6	Samsudin	500	26,000	13,000,000	6,405,000	6,595,000
7	Satria	450	27,000	12,150,000	6,040,000	6,110,000
8	Adi	800	25,000	20,000,000	7,890,000	12,110,000
9	Ahmadin	420	28,000	11,760,000	5,730,000	6,030,000
10	Agus Salim	550	25,000	13,750,000	5,450,000	8,300,000

Table 1 above is the result of calculating the calculation of production, production costs and business income of the Bandung fish processed agro-industry consisting of grilled milkfish processing and milkfish farming business. Respondents 1 to 5 are agro-industrial businesses processed from raw milkfish processed into grilled fish that can be consumed directly by consumers at different prices if the farmed milkfish is sold without processing. So in terms of production and income, milkfish farming farmers with farmers who directly process their products into grilled fish are quite large, the difference is quite large when viewed in terms of income. This is due to the difference in prices received by the two businesses, where the average price of processed milkfish into grilled fish consumed by consumers is IDR 110,000, up to IDR 120,000, while for farmers who work on milkfish farming if the product is sold on average at a price of IDR 27,000, - so the difference in the selling price of agro-industrial products that are processed directly is greater than if milkfish farmers sell them with milkfish products that are still raw.

4.2.1. Fixed Costs or Depreciation of Equipment

Fixed costs are costs that are relatively fixed in quantity and continue to be incurred even though the production obtained is many or few. So the magnitude of these fixed costs does not depend on the magnitude of the production obtained. In this study, fixed

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costs are the cost of equipment (the price of the equipment purchased) and fixed costs of the calculation of equipment depreciation

This calculated monthly from each respondent can be seen as follows:

Table 2. Fixed Costs and Average Depreciation Value Per Month Processed Grilled Milkfish and Milkfish Farming.

No	Name Respondent	Fixed Cost	Depreciation
1	Ainun Saliama	Rp 450,000	Rp 25,417
2	Isna	Rp 900,000	Rp 32,083
3	Suharti	Rp 703,000	Rp 21,778
4	Safiah	Rp 710,000	Rp 17,361
5	Jihan	Rp 522,000	Rp 17,875
6	Samsudin	Rp 4,405,000	Rp 71,250
7	Satria	Rp 4,360,000	Rp 113,056
8	Adi	Rp 4,165,000	Rp 97,604
9	Ahmadin	Rp 4,405,000	Rp 108,125
10	Agus Salim	Rp 3,155,000	Rp 85,451

Based on table 2 above, for the calculation of equipment depreciation calculated per month and 10 respondents in table 2 above, divided into two based on the processed products they produce, for respondents 1-5 processed products are grilled milkfish and respondents 6-10 have milkfish farming. From table 2 It can be known and explained as follows:

1. The first respondent on behalf of Ainun Saliama produced grilled milkfish by incurring a fixed fee of Rp. 450,000 to buy equipment with a monthly cost of shrinkage of Rp. 25,417
2. The second respondent on behalf of Isna produced grilled milkfish by incurring a fixed fee of Rp. 900,000 to buy equipment to buy equipment at a monthly shrinkage fee of Rp. 32,083
3. The third respondent on behalf of A. Nuraen produced grilled milkfish by incurring a fixed fee of Rp. 703,000 to buy equipment with a monthly feeding fee of Rp. 21,778
4. The fourth respondent on behalf of A. produced grilled milkfish by incurring a fixed fee of Rp. 710,000 to purchase equipment with a monthly feeding fee of Rp. 17,361
5. The fifth respondent on behalf of producing Grilled milkfish by incurring a fixed fee of Rp. 552,000 to purchase equipment with a monthly feeding fee of Rp. 17,875
6. The sixth respondent in the name of producing cultivation milkfish by spending a fixed fee of Rp. 4,405,000 to buy equipment with a monthly drainage fee of Rp. 71,250
7. The seventh respondent on behalf of producing milkfish farming by incurring a fixed fee of Rp. 4,360,000 to purchase equipment with a monthly feeding fee of Rp. 113,056
8. The eighth respondent on behalf of producing cultivation milkfish by spending a fixed fee of Rp. 4,165,000 to buy equipment with a monthly shipping fee of Rp. 97,604
9. The ninth respondent for producing milkfish farming by incurring a fixed fee of Rp. 4,405,000 to buy equipment with a monthly feeding fee of Rp. 108,125
10. The tenth respondent on behalf of producing milkfish farming by incurring fixed costs amounting to Rp. 3,155,000 to buy equipment with a monthly drainage fee of Rp. 85,451

4.2.2. Variable Costs

Variable costs in this study are costs whose magnitude is affected by the production obtained. This cost is arbitrary depending on the size of the desired production. What is included in the variable costs in this study is the cost of raw materials, supporting materials and labor. For respondents 1 -5 the who produce grilled milkfish in the calculation of variable costs per month and for variable costs of respondents 6-10 who process milkfish farming in the calculation of one production process or once harvest and

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the details of the total variable costs of each respondent can be seen as follows:

Table 3. Average Variable Cost of Processed Grilled Milkfish and Milkfish Farming

No	Name Respondent	Variable Cost (IDR)
1	Ainun Saliama	8,145,000
2	Isna	21,435,000
3	Suharti	9,960,000
4	Safiah	15,555,000
5	Jihan	9,495,000
6	Samsudin	2,000,000
7	Satria	1,680,000
8	Adi	3,725,000
9	Ahmadin	1,325,000
10	Agus Salim	2,295,000

Based on table 3. above can be explained by each respondent for its variable costs as follows:

1. The first respondent on behalf of Ainun Saliama incurred variable costs to purchase raw materials and supporting materials to make processed prodak per month amounting to Rp. 8,145,000
2. The second respondent on behalf of Isna used variable costs to purchase raw materials and supporting materials to make processed prodak per month amounting to Rp 21,435,000
3. The third respondent on behalf of Suharti incurred variable costs to purchase raw materials and supporting materials to make a monthly processed prodak of Rp. 9,960,000
4. The fourth respondent on behalf of Safiah used variable costs to purchase raw materials and supporting materials to make processed prodak per month amounting to Rp. 15,555,000
5. The second respondent on behalf of Jihan used variable costs to purchase raw materials and materials support for making processed prodak per month amounting to Rp. 9,495,000
6. The sixth respondent on behalf of Samsudin used variable costs to purchase raw materials, supporting materials and labor to process milkfish farming in the amount of Rp. 2,000,000 in one production,
7. The seventh respondent on behalf of Satria used variable costs to purchase raw materials, supporting materials and labor to process milkfish farming in the amount of Rp. 1,680,000 in one production
8. The eighth respondent on behalf of Adi used variable costs to purchase raw materials, supporting materials and labor to process milkfish farming in the amount of Rp. 3,725,000 in one production
9. The ninth respondent on behalf of Ahmadin used variable costs to purchase raw materials, supporting materials and labor to process milkfish farming in the amount of Rp. 1,325,000 in one production
10. The tenth respondent on behalf of Agus Salim used variable costs to purchase raw materials, supporting materials and labor to process milkfish farming in the amount of Rp. 2,295,000 in one production

4.3. Operating Income Analysis

Income is income derived from business results calculated from the total receipts (TR) with the total cost (TC) incurred in producing processed prodak. Revenue = (TR - TC), for respondent (1-5) the processed milkfish prodak details of the calculation of income from each respondent can be seen as follows:

Table 4. Average Business Income for processing grilled milkfish and Milkfish Buidaya.

No	Name Respondent	Revenue (IDR)
1	Ainun Saliama	16,605,000
2	Isna	37,965,000
3	Suharti	22,337,000
4	Safiah	29,935,000

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5	Jihan	18,783,000
6	Samsudin	6,595,000
7	Satria	6,110,000
8	Adi	12,110,000
9	Ahmadin	6,030,000
10	Agus Salim	8,300,000

Based on table 4 above for respondents (1-5) producing processed grilled milkfish in the calculation per month and for respondents (6-10) milkfish farming is calculated once the production process or once harvested. It can be seen from table 4 for respoen (1-5) producing processed grilled milkfish has a considerable income than respondents (6-10) who cultivate milkfish. The respondents whose income is the highest based on table 4, namely respondent 2 on behalf of isna amounting to IDR 12,110,000/month, the high income is influenced by how much product capacity we produce every once in production or every month and it is also influenced by how much price we set for the processed product and the lowest income from all these respondents, namely the 9th respondent on behalf of ahmain amounting to IDR 6,030,000 per production.

4.4. Business Efficiency Analysis

To measure the comparison between revenue and costs, it is expressed by using the formula R/C ratio (Return and Cost Ratio). This can be explained as follows:

- If the results of the analysis give an R/C ratio > 1 , then the business carried out is stated to be efficient and profitable.
- If the results of the analysis give an R/C ratio = 1, then the business carried out is stated to be efficient and profitable and also does not experience a loss.
- If the results of the analysis give an R/C ratio < 1 , then the business carried out is declared inefficient and unprofitable and the business suffers a loss.

Table 5. Business Efficiency of Grilled Milkfish Processing and Milkfish Cultivation.

No	Name Respondent	Revenue (IDR)	Total Cost (IDR)	Efficiency Effort
1	Ainun Saliama	16,605,000	8,595,000	1.93
2	Isna	37,965,000	21,435,000	1.77
3	Suharti	22,337,000	10,663,000	2.09
4	Safiah	29,935,000	16,265,000	1.84
5	Jihan	18,783,000	10,017,000	1.88
6	Samsudin	6,595,000	6,405,000	1.03
7	Satria	6,110,000	6,040,000	1.01
8	Adi	12,110,000	7,890,000	1.53
9	Ahmadin	6,030,000	5,730,000	1.05
10	Agus Salim	8,300,000	5,450,000	1.52

Based on the results of the calculation of business efficiency in table 5 above, namely the comparison between revenue divided by total costs, the results obtained from each respondent show that the efficiency calculation number is more than one meaning that each business run by the respondents above is efficient and profitable. Or in other words the R/C Ratio of each respondent > 1 , then the business carried out is profitable and efficient. Efficiency is maximizing the results of a job with few resources in the

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form of funds, money, or time. Looking at this understanding, in this case it means that the fewer resources or funds used in a business or process, the more efficient it will be.



Image. Grilled Milkfish Agroindustry Business Farmer in Woha District



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