



Feasibility Analysis of the Home-Based Tofu Industry in Bangunsari Village, Lasalepa District, Muna Regency (Case Study on Bina Mandiri Tofu Business)

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Abstract

This study aims to determine the feasibility of a household tofu industry business in Bangunsari Village, Lasalepa District, Muna Regency with a case study on the Bina Mandiri tofu business. This study was conducted in October 2024 - April 2025 and data collection was in March - April 2025. This study uses a case study method with a quantitative descriptive approach. Data analysis includes the calculation of fixed costs, variable costs, revenue, profit, and business feasibility indicators such as Return Cost Ratio (R/C), Return on Investment (ROI), and Break Even Point (BEP). The results of this study indicate that this business is profitable with a total profit of IDR 56,798,146/month, while the value of business feasibility is shown through the results of financial analysis with an R/C Ratio value of IDR 2.29, an ROI value of 12.9%, and a BEP value obtained by BEP units of 2.19 kg, BEP production of IDR 131,854. This shows that this tofu business is feasible to be developed.

Keywords: BEP, Business feasibility, Home industry, R/C ratio, ROI, Tofu

INTRODUCTION

Indonesia is an agrarian country with great potential in the agricultural sector, particularly in supporting national food security. Food security is an important indicator of successful national development because it is directly related to the fulfillment of food needs, community welfare, and economic growth (Asriani and Herdhiansyah, 2019). One of the





strategic agricultural commodities is soybeans, which play an important role as the main raw material for various food products, including tofu.

The tofu processing industry is part of the agroindustry that plays an important role in the national economy. In addition to providing an affordable source of vegetable protein, the tofu industry also absorbs labor, increases the added value of soybeans, and supports household income and the local economy (Samtono et al., 2024). However, the development of small-scale tofu industries still faces various challenges, such as dependence on raw materials, production cost efficiency, and sustainable business management.

National soybean production in 2024 reached 558.3 thousand tons with a harvest area of approximately 309,849 hectares (BPS, 2024). The high demand for soybeans has highlighted the importance of optimizing the use of this commodity through processing activities that add value. Southeast Sulawesi Province has great potential as a soybean development area, supported by the availability of sufficient land and suitable agroclimatic conditions (Southeast Sulawesi Provincial Agriculture Office, 2024).

The tofu agroindustry not only provides economic benefits but also has environmental implications that need to be considered, especially regarding production waste management. In addition, the sustainability of the tofu agroindustry is greatly influenced by the ability of business actors to manage production costs, capital, and profits efficiently (Saragih et al., 2019). Therefore, a business feasibility analysis is important to ensure that the business can run efficiently, profitably, and sustainably.

The Bina Mandiri Tofu Business in Bangunsari Village is one of the home industries that contributes to the local economy through job creation and the provision of food products with high demand. With stable production capacity and a large turnover, this business has the potential to continue to grow. However, without a systematic business feasibility evaluation, there is a risk of inefficient management and a decline in competitiveness amid increasingly fierce industry competition.

Previous studies have shown that household-scale tofu industries are generally feasible for development, in terms of market, technical, and financial aspects (Ningsih, 2018; Purnawati, 2022; Herdhiansyah, 2023). However, the characteristics and conditions of each business vary, so specific research is needed to assess the feasibility of the Tahu Bina Mandiri business in Bangunsari Village. Therefore, this research is important to analyze the overall feasibility of the business as a basis for decision-making on sustainable business development and increasing its contribution to the local economy.



METHOD

This research was conducted in Bangunsari Village, Lasalepa District, Muna Regency from March to April 2025 with purposive sampling, because the village is one of the centers of the tofu industry in Muna Regency, particularly the Bina Mandiri Home Industry Tofu. Data collection was carried out through observation to directly observe the research object, interviews with respondents to obtain relevant information, and questionnaires in the form of a list of questions addressed to tofu entrepreneurs to obtain data that supported the research objectives.

The analysis methods used in this study were the Descriptive Quantitative Analysis of the Financial Feasibility of Mr. Achmad Backri's Tofu Business (). To analyze the financial feasibility of the business based on conventional criteria, the costs, revenues, profits, *Revenue/Cost Ratio* (R/C Ratio), *Benefit Cost Ratio* (B/C Ratio), ROI, and *Break-Even Point* (BEP).

Total cost is obtained by adding *fixed cost* and *variable cost* (Soekartawi, 2016):

Formula:

Total Cost : $TC = TFC + TVC$

Variable Cost: $VC = \text{Total Cost (TC)} - \text{Fixed Cost (FC)}$

Fixed Costs : $FC = \text{Total Cost (TC)} - \text{Variable Cost per Unit (UVC)} \times \text{Quantity}$

Explanation:

TC = Total Cost (Rp/Month)

TFC = Total Fixed Cost (Rp/Month)

TVC = Total Variable Cost (Rp/Month)

Total Revenue is obtained from the multiplication of (*Price*) and (*Quantity*) of output (Setio, 2018), which is calculated using the following formula:

$TR = P \times Q$

Explanation:

TR = Total Revenue (Rp/Month)

P = Price (Rp/kg)

Q = Quantity (Kg/Month)

Profit is the difference between total revenue and total production costs (Setio, 2018), calculated using the following formula:

$\pi = TR - TC$

Explanation

Π = Profit (Rp/Month)

TR = Total Revenue (Rp/Month)

TC = Total Production Costs (*Total Cost*) (Rp/Month)



According to Suratiyah (2016), R/C is an abbreviation for Return Cost Ratio, which is known as the ratio between revenue and total cost per business. This can be written as follows:

$$R/C = \frac{TR}{TC}$$

Explanation:

R/C = Business Efficiency

TR = Total Revenue

TC = Total Costs

The criteria for assessing feasibility based on R/C are as follows:

- If $R/C > 1$, it means that the business undertaken by the industry or company is feasible.
- If $R/C = 1$, it means that the business undertaken by the industry or company is breaking even.
- If $R/C < 1$, it means that the business undertaken by the industry or company is not feasible.

ROI itself is a form of profitability ratio intended to measure a company's ability to generate profits with all funds invested in assets used for company operations.

The formula used to calculate ROI is as follows:

$$ROI = \frac{\text{profits (Rp)}}{\text{capitals (Rp)}} \times 100 \%$$

Break-even point (BEP) analysis is an analytical technique used to study the relationship between sales volume and profitability (Martini, 2022). It is calculated using the following formula:

$$BEP \text{ units} = \frac{FC}{P - VC} \text{ or } BEP \text{ rupiah} = \text{price} \times \text{unit}$$

Explanation:

FC = Fixed Costs (Rp/Month)

P = Selling price per unit (Rp/kg)

VC = Variable Cost per unit (Rp/kg)

The BEP production criteria are as follows:

1. If Production BEP < production volume, then the business is profitable.
2. If Production BEP = production quantity, then the business is at a break-even point or neither profitable nor loss-making.
3. If the production BEP > production quantity, then the business is in an unprofitable position.

The BEP criteria for price are as follows:

1. If the price BEP < selling price, then the business is in a profitable position.



2. If the BEP price = selling price, then the business is at a break-even point or neither profitable nor unprofitable.
3. If the BEP price > selling price, then the business is in an unfavorable position (Sulistiyowati, 2019).

RESULTS AND DISCUSSION

A business feasibility analysis was conducted to determine the extent to which the tofu production business run by Industri Tahu Bina Mandiri is feasible from a technical, market, and financial perspective.

Technical Aspects

If the market analysis indicates that a business is feasible to run, the next step is to answer the question of whether the business is technically feasible or not. Even if a business is feasible based on market aspects, if it is not technically feasible, the investment should be postponed. This is because businesses often fail because they are unable to deal with technical problems.

Table 1. Summary of Technical Aspects of the Bina Mandiri Tofu Industry

No	Technical Aspect	Brief Description
1	Location	Located in Bangunsari Village, Lasalepa District, Muna Regency. The location is quite strategic, far from densely populated areas so as not to disturb the environment, and has adequate parking space to support smooth operations and customer comfort.
2	Raw Materials	We use high-quality imported soybeans sourced from Tinanggea suppliers at a price of IDR 10,000/kg. The raw material requirement is approximately 100 kg/day or ± 3 tons/month to support daily production.
3	Production Scale	Household-scale production with an average capacity of 100 kg/day or approximately 1,200 pieces of 6 cm tofu per day, adjusted according to raw material availability and market demand.
4	Production Process	The production process is relatively simple and sequential, involving soaking, washing, grinding, boiling, filtering, coagulation, molding, and cutting the tofu into a single product size (6 cm).

5	Business Layout	The production area measures 9 m × 12 m, with the building separate from the residential area. The layout is systematically arranged following the production flow for work efficiency, with boiling conducted outside the building for safety and cleanliness.
6	Technology	Uses semi-traditional technology, such as a soybean grinding machine and a steam heating system from a wood-fired stove. Supporting equipment is obtained from local stores and made independently according to production needs.

Market Aspect

In this study, the market aspects analyzed include elements of the marketing mix. The marketing mix itself is a combination of several strategies that can be used by business actors to market their products effectively. This strategy consists of four main components, often referred to as the 4Ps: product, *price*, promotion, and place. These four components are interrelated and form the basis for designing marketing activities that can be adapted to market conditions. By adjusting these four variables appropriately, businesses can attract consumers, increase sales, and expand their market reach.

Table 2. Summary of Market Aspects of the Bina Mandiri Tofu Industry

No	Market Aspect	Brief Description
1	Product	The product is white tofu in the shape of a 6 cm square. This size is considered practical, efficient in production, and suitable for the needs of household consumers and fried food vendors.
2	Price	The selling price is set at IDR 70,000 per mold (bucket), with one mold producing around 25 pieces of tofu. In , around 60 molds or ±1,200 pieces of tofu are produced per day, adjusting to market demand and raw material availability.
3	Promotion	The promotion strategy remains traditional, relying on word-of-mouth promotion. The producer emphasizes maintaining product quality to ensure customer satisfaction and repeat purchases.
4	Distribution	Distribution is carried out daily to Raha City through two marketing channels, namely channel I (vegetable sellers and restaurants as regular customers) and channel II (sales through Laino Market). The

		main focus of marketing is channel I because demand is more stable and regular.
5	Product	The product produced is white tofu in the shape of a box with a uniform size of 6 cm. This size is considered practical, efficient in production, and suitable for the needs of household consumers and fried food vendors.

Financial Aspects

From a financial perspective, research in this field aims to determine the costs that will be incurred and their estimated amounts. Of all the evaluation factors in a company's feasibility study, financial factors have the greatest impact on financial decision-making because their value is known and cannot be taken lightly without careful consideration and calculation. Short-term and long-term effects can also arise from financial factors (Febryanti, 2023).

The financial aspect is also used to assess the company's overall finances. The financial aspect provides an overview of the company's profits, making it one of the most important aspects to examine for feasibility. Managing the finances of a business well is not only done by large businesses. Small and medium-sized businesses must also manage their finances properly and correctly. This is because the overall performance of a business is greatly influenced by the financial performance of the business concerned.

1. Cost

Cost is the amount of economic resources (cash or equivalents) sacrificed to carry out an activity that is expected to generate economic benefits (income) in the future. Assets presented as expenses are reported in the income statement. *Raw material* costs are costs incurred to purchase materials, which are used to make finished goods consisting of *direct materials* and *indirect materials* (Mukhzarudfa *et al.*, 2019). There are two types of costs in the Bina Mandiri Tofu Industry, namely *variable costs* and *fixed costs*.

Table 3. Average Variable and Fixed Costs of the Bina Mandiri Tofu Industry in Bangunsari Village, Lasalepa District, Muna Regency.

Cost Type	Item	Cost (Rp/Month)	Amount
Variable Costs	Soybeans	30,000,000	Rp. 43,870,000/month
	Water Vinegar	20	
	Young Coconut	450,000	
	Gasoline	700,000	

	Labor Costs	12,000,000	
	Electricity	200,000	
	Firewood	500,000	
Fixed Costs	Grinding Machine	25,000	Rp. 131,854/month
	Water Machine	1,993	
	Stove	25,000	
	Cart (Artco)	18,333	
	Aluminum drum	9,167	
	Molds	27,778	
	Filter Cloth	1,389	
	Knife	556	
	Basin	1,083	
	Bucket	10,556	
	Boots	8,333	
	Gloves	833	
	Lights	833	

Table 3 shows that the total production costs of the Bina Mandiri Tofu Industry in one month reached IDR 43,870,000, with the largest expenditures coming from the purchase of soybeans amounting to IDR 30,000,000 and labor costs amounting to IDR 12,000,000, which confirms that raw materials and labor wages are the main components in the production cost structure. Other costs such as vinegar, young coconut, gasoline, electricity, and charcoal only play a supporting role with a relatively small proportion, so they are included in the variable cost category () which increases as production volume increases. Meanwhile, the average fixed cost incurred is IDR 131,854 per month, with the largest depreciation coming from the grinding machine because it has the highest initial investment value and contribution to use in the production process.

Table 4. Average Total Costs Used in the Bina Mandiri Tofu Industry in Bangunsari Village, Lasalepa District, Muna Regency.

No	Cost Component	Amount (Rp/Month)
1	Variable Costs	43,870,000
2	Fixed Costs	131,854
3	Total Cost	44,001,854

Table 4. shows that the total production costs incurred by the Bina Mandiri Tofu Industry amounted to Rp44,001,854. This amount is the accumulation of variable and fixed costs incurred during the production process. Therefore, the total costs are greatly influenced by fluctuations in these two types of costs. If variable costs such as raw materials and wages increase, or if there is an addition of equipment that causes an increase in fixed costs, then the total cost will also increase. This shows the importance of efficient management of these two cost components to maintain stability in production expenses.

2. Revenue

Revenue plays a very important role in the continuity of a business, especially for producers, because the continuity of production activities is highly dependent on the amount of revenue obtained. In this study, revenue refers to the total value of production obtained by the Bina Mandiri tofu producer within a one-month production period. This revenue value is obtained from the multiplication of the number of products produced and the selling price in the market. Details of the revenue of the Bina Mandiri tofu business can be seen in Table 6

Table 6. Average revenue obtained by the Bina Mandiri Tofu Industry in Bangunsari Village, Lasalepa District, Muna Regency.

Quantity	Unit	Price/Unit	Revenue
		(Rp/kg)	(Rp/Month)
Day	48 Buckets (Large Mold)	70,000	3,360,000
	Total		3,360,000
Month	1440	70,000	100,800,000
	Total		100,800,000

Based on Table 6. , it can be seen that the tofu production business run by Bina Mandiri Tofu Industry produces 48 buckets containing one large mold measuring 6 cm per day. The total revenue of the Bina Mandiri tofu industry in one day is IDR 3,360,000 per day with a total of 100 kg of soybean raw materials. Meanwhile, in one month, the total production reaches 1440 kg, so that the business revenue for one month reaches IDR 100,800,000 per month. The production volume achieved by this industry is greatly influenced by several input factors, including the availability of primary raw materials such as soybeans, other supporting materials, as well as the efficiency and productivity of the workforce in the production process. With optimal input management, the level of business revenue can also be maximized.

4. Profit

Profit is the result of the difference between the revenue obtained from product sales and the total costs incurred during the production process. In this case, the Bina Mandiri Tofu Industry earns a profit from its production activities for one month based on the amount of tofu successfully sold to consumers. The amount of profit is largely determined by the level of revenue obtained and the efficiency in managing production costs.

Table 7. Average Profit of the Bina Mandiri Tofu Industry in Bangunsari Village, Lasalepa District, Muna Regency .

No	Description	Amount (Rp/Month)
1	Revenue (a)	100,800,000
2	Total Expenses (b)	44,001,854
3	Profit (c)	56,798,146

Based on Table 7. , it can be seen that the total revenue earned by the Bina Mandiri Tofu Industry in one month reached IDR 100,800,000. This revenue was the result of tofu sales during the production period in one month, which was recorded at IDR 44,001,854, covering all expenses such as raw materials, supporting materials, labor costs, and other operational costs.

The difference between the revenue and total costs shows that this business is able to generate a profit of IDR 56,798,146 per month. This profit value indicates that the production activities carried out by Bina Mandiri Tofu Industry are running efficiently and generating significant added value. Therefore, the business is considered viable for further development, as it can provide positive economic contributions and has good prospects for sustainability in the future.

5. Revenue Cost Ratio (R/C Ratio)

Purnawati *et al* (2022) *The Revenue Cost Ratio* is a feasibility analysis test that compares total revenue with total expenses incurred. The criteria used in this analysis are that if the R/C value is >1, the business is considered profitable and feasible, because the amount of revenue is greater than the expenses incurred, and vice versa. The calculation of the analysis results of revenue and total costs (Rp) can be seen as follows:

$$\begin{aligned}
 \text{Revenue Cost Ratio (R/C)} &= \frac{TR}{TC} \\
 &= \frac{Rp.100,800,000}{Rp.44.001.854} \\
 &= \text{IDR } 2.29
 \end{aligned}$$



The financial feasibility analysis of the Bina Mandiri tofu processing business shows that the Revenue Cost Ratio (R/C) value obtained is 2.29. This figure is obtained from a comparison between total revenue of IDR 100,800,000 and total costs of IDR 44,001,854. An R/C value greater than one indicates that this business is in a profitable position and is feasible to run. In other words, every expenditure of Rp100 can generate revenue of Rp229, which reflects fairly good cost efficiency in the business activities.

As a comparison, previous research conducted by Purnamawati (2022) on the Al Fatah tofu household industry in Wulanga Jaya Village, West Muna Regency, showed that the R/C value obtained was 4.1. This value is higher than that obtained by the Bina Mandiri business. In this study, the total business income was IDR 99,000,000 with total costs of IDR 24,166,920, resulting in a net profit of IDR 74,669,880 per year. An R/C value of 4.1 indicates that every Rp100 spent can generate Rp410 in revenue, signifying very high business efficiency and greater optimization compared to Bina Mandiri.

6. Return on Investment (ROI)

Return on Investment (ROI) is one of the indicators used to measure the efficiency and profitability of an investment or capital used in a business. ROI shows how much profit is obtained compared to the total capital spent during the production process. In this study, the ROI value is calculated using the following formula:

$$\begin{aligned}\text{Return on Investment (ROI)} &= \frac{\text{laba usaha (Rp)}}{\text{Modal usah (Rp)}} \times 100 \\ &= \frac{\text{Rp } 56.798.146}{\text{Rp } 44.001.854} \times 100 \\ &= 12.9\%\end{aligned}$$

Based on the available data, the business profit earned in one month was IDR 56,798,146, while the capital or total business costs during the same period were IDR 44,001,854. These calculations show that every Rp1 of capital spent generates a profit of Rp12.9. Thus, Bina Mandiri Tofu Industry is able to generate a return on investment of 12.9% in one month. This high ROI value indicates that the business is very profitable and has excellent capital efficiency.

When compared to the results of research on Al Fatah's tofu business in Wulanga Jaya Village by Purnamawati (2022), the ROI obtained was 30.9% per year. This means that for every Rp1 invested over one year, Al Fatah's business was able to generate a profit of Rp0.309. Although the annual ROI value for Al Fatah's business appears smaller than the monthly percentage for Bina Mandiri's business, both show that the businesses run have positive financial performance. The difference in the measurement period (monthly for Bina Mandiri and



annually for Al Fatah) needs to be noted when comparing the two directly. In general, both businesses show profitable ROI results, albeit on different scales of time and investment efficiency.

7. Break-Even Point (BEP)

The Break-Even Point (BEP) is an analysis to determine and find the number of goods or services that must be sold to consumers at a certain price to cover the costs incurred and obtain a profit (Purnamawati *et al.*, 2022). The BEP calculation can be seen in the following formula:

$$\begin{aligned} \text{Break-Even Point BEP units} &= \frac{\text{fixed costs}}{(\text{price per unit} - \text{variabel cost per unit})} \\ &= \frac{\text{Rp } 131.854}{\text{Rp } 70.000 - 10.000} \\ &= \frac{\text{Rp } 131.854}{\text{Rp } 60.000} \\ &= 2.19 \text{ kg} \end{aligned}$$

$$\begin{aligned} \text{Break-Even Point (BEP) in rupiah} &= \text{Price} \times \text{Units} \\ &= 70,000 \times 2.19 \\ &= \text{IDR } 153,300 \end{aligned}$$

The results of the Break-Even Point (BEP) analysis for the Bina Mandiri tofu processing business show that the unit BEP is 2.19 kg, which means that the business must produce and sell at least 2.19 kg in order to cover all fixed and variable costs. With a selling price per unit of IDR 70,000 and variable costs per unit of IDR 10,000, the BEP value in rupiah is IDR 153,300. This value is a reference point: if the production volume exceeds 2.19 kg, the business is profitable. Conversely, if production is below that figure, the business will incur a loss. Since the actual selling price is the same as the price at the time of the BEP calculation, the business is at break-even, but it is still considered profitable if the actual production volume exceeds the unit BEP value.

When compared with the results of research on Al Fatah's tofu processing business in Wulanga Jaya Village, the BEP production value is 3,222 kg per year and the BEP price is Rp183.31 per kilogram. Meanwhile, the actual selling price of Al Fatah tofu products is Rp7,500/kg. This means that both in terms of production volume and price, the Al Fatah tofu business has exceeded the BEP value, so that financially the business is declared to be profitable. This comparison shows that even though the scale and unit of production are different, both businesses are able to pass the break-even point, which is an important indicator of business

feasibility. In other words, both the Bina Mandiri and Al Fatah businesses are in a profitable financial position based on BEP analysis.

CONCLUSION

Based on the results of research conducted on the Bina Mandiri Tofu Business in Bangunsari Village, it shows that this business is profitable with a total profit of Rp56,798,146/month. Meanwhile, the feasibility of the business is demonstrated through financial analysis with an R/C Ratio of Rp2.29, an ROI of 12.9%, and a BEP value of 2.19 kg and a BEP production of Rp153,300. Therefore, it can be concluded that the Bina Mandiri tofu processing business in Bangunsari Village, Lasalepa District, Muna Regency is feasible to operate.

The recommendations in this study are as follows: the Bina Mandiri Tofu Industry is expected to continuously maintain and improve the quality of its tofu products in order to retain customer loyalty and attract new consumers; the government is expected to pay more serious attention to the development of small industries, particularly the tofu processing industry, through policy support and business facilitation; and future researchers are expected to complement this study by adding variables or using different research methods in order to obtain more comprehensive results.

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