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FEASIBILITY ANALYSIS ON TEMPE INDUSTRIAL HOME (CASE IN TEMPE YAYAN INDUSTRIAL HOME, LEBAKSIUH VILLAGE, CIAWI DISTRICT, KUNINGAN REGENCY)

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Abstract

This study aims to evaluate the financial viability of tempeh home industry businesses by analyzing how production costs affect profitability. The design used in this study is a quantitative descriptive method with a technical survey approach. The data collection techniques include observation, interviews, and questionnaires (questionnaires). The results of this study are as follows: (1) Total production BEP and BEP business price of Tempe Yayan's home industry business in Lebaksiuh Village, Ciawi District, Kuningan Regency, were analyzed. (2) The R/C ratio analysis was used to analyze the profit and loss of the home industry. (3) The total profit of this home industry was calculated as a function of production costs, BEP price, and total profit. (4) Based on the results of the research and discussion conducted regarding the Profit and Loss Analysis of the Tempe YaYan Home Industry Business, future research could focus on a comparative analysis of financial performance and profitability across different tempay home industry ventures in various regions. The research would provide a broader understanding of best practices and challenges faced by similar businesses, offering valuable insights for both entrepreneurs and policymakers. (5) The research could explore the impact of government support and interventions on the growth and success of home industry enterprises, particularly in terms of capital access, production efficiency, and marketing effectiveness.

Keywords: Home Tempeh Industry, Profit, Business Feasibility Analysis

INTRODUCTION

Soybeans are a multipurpose plant, because they can be used as food, feed, or industrial feed. Soybeans are a type of legume plant that is the basic ingredient of foods such as soy sauce, tofu, and tempeh (Suknia & Rahmani, 2020). Soybeans are the most important main food crop after rice and corn, in terms of price, soybeans are a cheap source of plant-based protein. Soybeans are a good source of nutrients for humans, whole soybeans contain 35% to 38% of the highest protein of other legumes. Most of the vegetable needs can be met from soybeans, one of the processed soybean products is tempeh (Adisarwanto, 2005). Indonesia is the largest tempeh producer in the world and the largest soybean market in Asia. As much as 50% of soybean consumption in Indonesia is in the form of tempeh. 40% in the form of tofu and 10% in the form of other products, such as tauco, tofu flowers, oncom, and soy sauce. The average annual consumption of tempeh in Indonesia is currently around 6.45 kg Purbaningsih et al. (2021).

Soybean products as processed food ingredients have the potential and play a role in growing and developing small and medium industries and even have the opportunity to be an export commodity. The development of the soybean food industry opens up job opportunities in the production system, ranging from cultivation, harvesting, processing, post-harvest, transportation, markets to the food processing industry (Bantacut, 2017). In order for the production of soybeans and processed products to be able to compete in the market, the quality needs to be improved. Therefore, coaching the development of production, processing, and marketing processes, especially the implementation of quality assurance plays an important role (Elmayanti et al., 2019).

The great benefits of tempeh for body health make tempeh one of the alternative foods to fulfill people's nutrition, because along with the increasing rate of population growth, it will certainly have an impact on increasing the demand for food needs coupled with an increase in food needs. The price of basic necessities due to inflation which causes people to still not be able to provide enough sources of animal protein so that tempeh can be one of the alternatives to food that has good nutritional value at an affordable price by the community (Dinar, 2013).

Home Industry (Home Industry) is a business that carries out its economic activities by producing goods and services carried out at home. The Central Statistics Agency defines industry as follows: Industry is a branch of the economy, a company or similar business entity where people work (Nasser et al., 2021). Ciawi District, Kuningan Regency has several home industries that produce tempeh. With the existence of this tempeh production business, it can be used as one of the alternative foods to meet the nutrition of the community, because with the increasing growth of staple foods, people are still unable to meet protein sources. With the establishment of this tempeh production business, it can be used as a substitute for food that has good nutritional value at an affordable price (Porajouw et al., 2019). While this business aims to get profits from the production business that is being run, but this production business experiences several obstacles.

Capital is the main factor needed to develop a business unit. Therefore, in general, small and medium enterprises are individual businesses or closed companies, which rely on capital from the owner which is very limited (Ma'ruf & Sulaeman, 2021). Limited human resources are also one of the obstacles faced by small and medium enterprises. Most small and medium businesses are downstream businesses carried out by families. The limitations of human resources both in terms of education, knowledge and skills are very influential in the management of business management, so it is difficult for the business to develop(Suryandani & Mahmudi, 2018). In addition, the price of the main ingredient for tempeh production is uncertain and also affects production (Titania & Ningrum, 2022).

The research aims to evaluate the financial viability of tempeh home industry businesses by analyzing how production costs affect profitability. It involves conducting a profit and loss analysis to determine whether these businesses are operating at a profit or a loss. The ultimate goal is to identify which tempeh home industry ventures are financially sustainable and worth pursuing, providing valuable insights into their economic feasibility.

RESEARCH METHOD

The research location is at the Tempe Yayan Industrial Home which is located in Lebaksiuh Village, Ciawi District, Kuningan Regency. The research was carried out in May - July 2024. The design used in this study is a quantitative descriptive method with a technical survey approach. The sampling technique used is saturated sampling, which uses all members of the population as samples (Sugiyono, 2019).

The sample in this study is the owner of a home industry tempeh business and 3 employees who work in Mr. Yayan's tempeh business. The data used in this study are primary and secondary data. The data collection techniques in this study include observation, interviews and questionnaires (questionnaires). The data analysis technique in this study is the analysis of the tempeh home industry business as follows:

Total Cost (TC)

Total Cost is the cost incurred by the producer in producing output. To find the total cost is to add Total Fixed Cost with Total Variable Cost (Ely & Darwanto, 2019).

TC = TFC + TVC

Information:

TC = Total Cost
TFC = Total Fixed Cost
TVC = Total Variable Cost

Total Revenue (TR)

Tota Revenue (Total Revenue) is the revenue obtained from the sale of products (Ely & Darwanto, 2019).

TR = Q.P
Information:
TR = Total Revenue
Q = Quantity
P = Price

Profit

Profit is the difference between Total Revenue and Total Cost (Ely & Darwanto, 2019).

Π = TR – TC
Information:
Π = Profit
TR = Total Revenue/Total Revenue
TC = Total Cost

Profit

Profit is the profit or excess income obtained by a company or individual from the initial capital spent. There are three types of profit, namely gross profit, operating profit and net profit.

As for the feasibility analysis of the tempe home industry business as follows:

1) Revenue / Cost Ratio (R/T ratio): The use of the R/C ratio aims to determine the extent of the results obtained from profitable businesses in a certain period (Sujarweni, 2018), with the following formula:

$$R/C = \frac{Total\ Revenue}{Total\ Production\ Cost}$$

The assessment criteria include (1) if the R/C ratio is < 1, then the fire opak business is not feasible to be implemented or developed; (2) if the R/C ratio is > 1, then the burning opak business is feasible to be carried out or developed; (3) if the R/C ratio value = 1, then the burnt opak business is not profitable or loss.

2) Break Event Point (BEP): Break-even analysis or Break Event Point (BEP) is an analytical technique used to study the relationship between costs, fixed costs, variable costs, revenues and production volumes (Supriadi & Nurulita, 2018). The BEP formula can be calculated as follows:
    a) BEP break-even point on production:

$$BEP = \frac{Total\ Cost}{Product\ Unit\ Price}\ Kg$$

Assessment criteria if (1) the production BEP < the products achieved by the opak bakar business, then there is a loss: (2) BEP production = products achieved by the opak bakar business means reaching the break-even point; (3) BEP production > products achieved by the opak bakar business then obtain profits.

b) Break-even point on prices

$$BEP = \frac{Total\ Cost}{Total\ Product}\ Rp$$

Assessment criteria if (1) BEP of the price < the product achieved by the opak bakar business, then it suffers a loss: (2) BEP price = product achieved by the opak bakar business means reaching the break-even point; (3) BEP > the price of products achieved by the opak bakar business then makes a profit.

RESULT AND DISCUSSION

Analysis of Yayan's Tempe Home Industry Business

Cost Analysis on Home Industry Tempe Yayan

The total cost used in one day of production is Rp. 11,237,398. consists of variable costs incurred of Rp. 10,986,999 (97.88%), of the total production cost of the tempeh business. The variable costs incurred consisted of the average cost of raw materials, namely the purchase of soybeans of Rp. 9,000,000 (81.00%), the cost of yeast Rp. 90,000 (0.80%), the cost of wax Rp. 9.00 (0.08%), the cost of plastic Rp. 432,000 (3.80%), the cost of workers' wages Rp. 900,000 (8.00%), the cost of electricity Rp. 39,999 (0.20%), the cost of transportation Rp. 120,000 (1.00%), and the cost of LPG gas Rp. 396,000 (3.00%). The calculation of production variable costs is in appendix 8. Meanwhile, the fixed cost incurred is Rp. 250,399 (2.12%) which consists of owner services of Rp. 220,000 (1.90%), building tax costs of Rp. 2,499 (0.02%) and depreciation costs of equipment of Rp. 27,900 (0.25%). The Tempe Production Cost for 1 Period (3 days) in the Yayan Tempe Industry Home Business in Lebaksiuh Village can be seen in Table 1.

Table 1. Tempe Production Costs 1 Period (3 days) in the Yayan Tempe Industry Home Business

Cost Type	Magnitude (RP)	Percentage (%)
Fixed Fees	***250.399***	***2,12***
Owner Services	220.000	1,90
Building Tax	2.499	0,02
Shrinkage Tool	27.900	0,20
Variable Costs	***10.986.999***	***97,88***
Soybean	9.000.000	81,0
Yeast	90.000	0,80
Candle	9.000	0,08
Plastic	432.000	3,80
Employee Wages	900.000	8,00
Electricity	39.999	0,20
Transportation	120.000	1,00
LPG Gas	396.000	3,00
Total Cost (A+B)	***11.237.398***	***100***

Source: Primary Data Processed (2024)

According to Muhammad Tuwo (2011), grouping production costs into three, namely fixed costs, non-fixed costs and total costs. This fixed cost consists of fixed costs that include building taxes and depreciation of tools. Meanwhile, non-fixed costs are such as soybeans,

yeast, candles, LPG gas, plastics, employee salaries, and transportation costs. While total costs are the sum of fixed costs and non-fixed costs.

Analysis of Receipts in the Home Industry of Tempe Yayan

The tempeh produced in this business is produced in the form of tempeh that has been wrapped in plastic. The number of tempeh produced in 1 period is 100 block/day with a selling price of Rp. 50,000/block. For more details about the amount of revenue in the tempeh business in the Yayan tempe home industry, please see Table 2.

Table 2. The Value of Revenue in the Tempe Business in the Home Industry Tempe Yayan

No	Description	Unit	Total
1.	Production Volume	Block	300
2.	Selling Price	Rp/Block	50.000
3.	Sold	Block	300
Total Admissions		Rp	15.000.000

Source: Primary Data Processed (2024)

Based on Table 2, it shows that Yayan's tempe home industry business produces as many as 300 block with a selling price of Rp. 50,000/block tempeh for 1 period (3 days), so the total revenue obtained in 1 production period is Rp. 15,000,000. According to Dini et al. (2020), the larger the number of products produced, the greater the total revenue received by producers/owners in the tempeh business. On the other hand, if the products produced are small and the price is low, the total revenue received by producers/owners in the tempeh business is smaller.

Business Advantages in the Home Industry of Tempe Yayan

The total production in Yayan's tempe home industry business in 1 production period is 300 block tempeh with a selling price of Rp. 50,000/block so that the receipt in 1 production period is Rp. 15,000,000. while the total cost incurred in 1 production period is Rp. 11,237,398. so that the average profit can be known, which is Rp. 3,762,608 (the result of the reduction between the total revenue of Rp. 15,000,000 and the total production cost of Rp. 11,237,398. The Profit Per 1 Period In The Home Industry Tempe Yayan Business can be seen in Table 3.

Table 3. Profit Per 1 Period in Yayan Tempe Industry Home Business

No	Description	Unit	Total
A.	Production Cost (TC)	Rp	11.237.398
B.	Admission (TR)	Rp	15.000.000
Total Profit (TR-TC)		Rp	3.762.608

Source: Primary Data Processed (2024)

Profit and Loss Analysis on Home Industry Tempe Yayan

The income statement also contains the amount of income earned and the amount of expenses incurred. In other words, an income statement is a report that shows the amount of income or income earned and expenses incurred and profit and loss in a certain period (Sujarweni, 2018). The analysis of profit and loss in Yayan's tempe home industry business can be seen in Table 4.

Table 4. Profit and Loss Statement for 1 Production Period in Tempe Yayan's Home Industry Business

Description	Amount (Rp)	Total (Rp)
Income		
300 Block x Rp. 50,000	15.000.000	
Total revenue		**15.000.000**
Production Cost :		
A. Raw Material Cost:		
Soybeans 900 kg x Rp. 10,000/kg	9.000.000	
Yeast	90.000	
B. Cost of Additional Materials:		
Plastic	432.000	
Candle	9.000	
LPG Gas	396.000	
Labor wage costs	900.000	
Transportation Costs	120.000	
Electricity cost	39.999	
Depreciation costs	27.000	
Building Tax	2.499	
Owner Services	220.000	
Total Production Cost (A+B)		**11.237.299**
Profit 1 Production period		**3.762.701**

Source: Primary Data Processed (2024)

Based on Table 4, Mr. Yayan produces as many as 300 tempeh block with a tempeh price of Rp. 50,000/piece. Mr. Yayan's total income in 1 production period is Rp. 15,000,000. The production costs incurred by Mr. Yayan in 1 production period include raw materials and additional materials. The cost of raw materials includes the cost of soybeans of Rp. 9,000,000 and yeast of Rp. 90,000. for the cost of additional materials including plastic plastic of Rp. 432,000, candles of Rp. 9,000, LPG gas of Rp. 396,000, while the cost of labor wages Mr. Yayan provides a salary of Rp. 100,000 days/person with a total of 3 employees and so that in 1 production period the total labor wage costs incurred by Mr. Yayan are Rp. 900,000, The transportation costs incurred by Mr. Yayan amounted to Rp. 120,000, then the depreciation cost of the equipment amounted to Rp. 27,900, the electricity cost amounted to Rp. 39,999, and the building tax cost amounted to Rp. 2,499,- and the owner's service fee amounted to Rp. 220,000. So the total cost incurred by Mr. Yayan for 1 period is Rp. 11,237,299. In 1 production period, Yayan's tempe home industry business earned a profit of Rp**.** 3,762,701

Business Feasibility Analysis in Home Industry Tempe Yayan

Revenue Cost Ratio (R/C Ratio) Tempe Industry

Based on the results of the analysis, in 1 production period, the value of the R/C Ratio (Revenue Cost Ratio) in the tempeh home industry business is 1.33. This means that for every Rp. 1 cost incurred in this tempeh home industry business, it will generate revenue of Rp. 1.33. The results of the analysis show that the R/C Ratio is medium 1.33 for every 1

rupiah spent. According to (Sujarweni, 2018) The R/C ratio value is more than one (R/C ratio > 1) is declared feasible and if the R/C Ratio is less than one (R/C Ratio < 1) is declared not feasible to be sought. The analysis of the R/C Ratio in the Tempe Yayan Home Industry Business can be seen in Table 5.

Table 5. R/C Ratio Analysis in Tempe Yayan Home Industry Business

Description	Unit	Total
A. Cost of Production (TC)	Rp	11.237.299
B. Admissions (TR)	Rp	15.000.000
R/C Ratio (TR:TC) Value		1,33

Source: Primary Data Processed (2024)

Break Even Point (BEP)

BEP value The production volume in 1 production period of Yayan's tempe home industry business is 225 block tempeh, meaning that the minimum production limit in Yayan's tempe home industry business is 225 pieces of tempeh for one period. From the results of the analysis of the table above, it can be seen that 1 period of tempeh production in the Yayan tempe home industry business in Lebaksiuh Village is more than (>) of 225 pieces, which is 300 block, so it can be seen that the Yayan tempe home industry business has a profit of 75 block. The Total Production BEP and BEP of the Home Business Price of the Tempe Yayan Industry can be seen in Table 6.

Table 6. Total Production BEP and BEP Business Price of Tempe Yayan Home Industry

Description	Unit	Total
A. Production Amount (Q)	Block	300
B. Production Price (P)	Rp	50.000
C. Production Cost (TC)	Rp	11.237.299
Production BEP (TC:P)	**Block**	225
BEP Pricing (TC:Q)	**Rp/Block**	37.457

Source: Primary Data Processed (2024)

The BEP value of tempeh production depends on the total production cost and selling price of tempeh in 1 period (3 days). Production costs are all expenses needed to produce a product, which is valued in money or in other words, production costs are the value of expenses (Puspitasari & Anoraga, 2020).

The BEP value of price volume in 1 production period of Yayan's tempeh home industry business in Lebaksiuh Village is Rp. 37,457/block tempe, meaning that the product price limit in this case tempeh minmum is Rp. 37,457/block tempe. From the results of the analysis of the table above, it can be seen that the selling price of tempeh in Yayan's tempeh home industry business in Lebaksiuh Village is Rp. 50,000/piece, so that Mr. Yayan has a profit of Rp. 12,543/block tempe. The business did not make a profit or experience losses.

CONCLUSION

The Profit and Loss Analysis of Tempe Yayan Home Industry Business in Lebaksiuh Village, Ciawi District, Kuningan Regency, shows a total production cost of Rp. 11,237,299 and a revenue of Rp. 15,000,000. The business has a R/C Ratio of 1.33 and a BEP of 225 blocks, with a selling price of Rp. 50,000/block. The study suggests that home industry business owners should monitor their finances and that the government should support entrepreneurs to increase capital, production, and marketing. Future research could analyze

financial performance and profitability across different Tempe home industry businesses, examine factors like production methods, cost management strategies, and market conditions, and explore the impact of government support on growth and success.

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