

## FINANCIAL FEASIBILITY ANALYSIS OF DODOL BUSINESS IN TANJUNG PURA DISTRICT, LANGKAT REGENCY

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### Abstract

This study aims to determine the feasibility of the dodol business in Tanjung Pura District, Langkat Regency. The sampling technique in this study used probability sampling, using equal opportunities for members of the population to become sample members. The data collected in this study were primary data and secondary data. The data analysis method used in this study was the financial analysis method, calculating income, and R/C Ratio. The subjects of this study as informants were entrepreneurs/owners of dodol in Paya Perupuk Village and Pematang Tengah Village, Tanjung Pura District. Based on the results of the financial feasibility analysis, the results of this study were that the dodol business in Tanjung Pura District earned income of Rp5,268,000,000/Year, production costs of Rp1,952,399,300/Year, annual income of Rp3,315,600,700/Year. The R/C Ratio value obtained is 2.70 so that it can be seen that the R/C value is  $>1$ , the BEP of Revenue is Rp17,086,705.74 and the Revenue generated exceeds the BEP of revenue which is Rp181,655,051.73, the BEP of production is 320.05 Kg and the production generated exceeds the BEP of production generated, which is 3,252.41 Kg. it can be concluded that the dodol business in Tanjung Pura District, Langkat Regency is feasible to be run further.

**Keywords:** *Financial Feasibility Analysis, Income, Dodol*

### INTRODUCTION

Indonesia is known as a country with a high cultural and traditional culinary wealth. One of the traditional foods that is still in demand is dodol, which is made from sticky rice, coconut milk, and sugar. This food not only has economic value but also cultural value because it is often served at traditional events and celebrations (Sinar et al., 2016). In North Sumatra Province, Tanjung Pura District in Langkat Regency is known as one of the main centers of dodol production. This area has a long history of dodol production that began in 1946 and is currently developing through MSME actors spread across Pematang Tengah Village, Serapuh Asli, and Perupuk (Afifah, 2024). The production process is still largely traditional, but several innovations have been implemented in terms of flavor variations and packaging. Data from Tanjung Pura District shows that the number of dodol MSMEs increased from 23 units in 2019 to 39 units in 2023, reflecting a significant increase in demand and economic potential (Tanjung Pura District, 2023). To ensure that this business runs efficiently and profitably, a financial feasibility analysis needs to be conducted. Rangkuti et al. (2020) stated that feasibility analysis is a tool to assess whether a business provides greater benefits than the costs incurred. One of the analysis methods used is the Revenue Cost Ratio (R/C Ratio), which measures the efficiency between costs and revenues; an R/C value  $> 1$  indicates that the business is feasible (Murti et al., 2020). In addition, the Break Even Point (BEP) analysis is important to determine at what point the total revenue equals the total cost, so that the business does not experience losses (Pulungan

et al., 2015). This study aims to analyze the financial feasibility of the dodol business in Tanjung Pura District as a strategic consideration in developing local MSMEs and efforts to improve community welfare.

## **LITERATURE REVIEW**

### **2.1 Micro, Small and Medium Enterprises (MSMEs)**

According to Law No. 20 of 2008, concerning Micro, Small and Medium Enterprises, Article 1, paragraphs 1, 2, and 3, namely: According to this law, micro businesses are defined as productive age owned by individual business entities and/or individuals who meet the criteria for businesses. Small Businesses are independent productive economic enterprises, carried out by individuals or business entities that are not subsidiaries or branches of companies, and which are owned, controlled, or become part of either directly or indirectly a Medium Business or Large Business that meets the criteria for Small Businesses. Meanwhile, Medium Businesses are defined as productive economic enterprises established by individuals or business entities that are not subsidiaries or branches of companies that are owned, controlled, or become part of either directly or indirectly a Small Business or Large Business with a net worth or annual sales results (Rifani, 2022).

### **2.2 Dodol**

Dodol Tanjung Pura is one of the typical foods and souvenirs from Tanjung Pura, a sub-district in Langkat Regency, North Sumatra. This food is known as a traditional snack made from simple ingredients, but rich in taste and cultural value. Dodol Tanjung Pura is generally made from sticky rice, sugar, and coconut milk. The manufacturing process requires patience, where sticky rice is cooked and mixed with coconut milk and sugar, then stirred continuously until it becomes a thick dough. This stirring process usually takes hours, so that the dodol has a chewy texture and a sweet taste (Budaraga et al., 2021).

### **2.3 Financial Feasibility Analysis of Business**

Feasibility analysis is the process of studying a business thoroughly to determine whether it is feasible or not (Rangkuti et al., 2020). In other words, this analysis determines whether the business provides greater benefits than the costs incurred. Feasibility analysis must be carried out by business actors before the business actually starts, during the planning stage, and is very important in making strategic decisions. This is done so that entrepreneurs can reduce risks and failures, achieve business goals, and obtain maximum profits.

## **RESEARCH METHODS**

This research was conducted in February 2025. The research area was located in Pematang Tengah and Perupuk Villages, Tanjung Pura District, Langkat Regency, North Sumatra Province. The location was determined by purposive sampling, namely the deliberate selection of a location or research object. The research method used in this study was the survey method. The survey method is a research method that aims to obtain data from a certain natural place (not artificial) where in collecting data the treatment is the use of questionnaires or interviews (Sugiyono 2018). The sampling technique in this study was Probability Sampling, namely a sampling technique that uses equal opportunities for members of the population to become sample members (Sugiyono, 2017). The sampling method in the study used saturated sampling, according to Sugiyono (2017) saturated sampling or census is a sampling technique when all members of the population are sampled. The number of samples in this study was 29 samples consisting of two villages, namely Paya Perupuk Village and Pematang Tengah Village. The data analysis methods used in this study were:

### Production cost

According to Mulyadi (2015) production costs are costs incurred to process raw materials into finished products ready for sale. Can be calculated by:

$$TC = TFC + TVC$$

Information:

TC (Total Cost) : Total Cost (Rp/Year)

TFC (Total Fixed Cost) : Total Fixed Cost (Rp/Year) TVC (Total Variable Cost) : Total Variable Cost (Rp/Year).

### Reception

Revenue is the total income obtained by producers from the sale of products produced (Zaenuddin Kabai 2015). It can be calculated using the formula:

$$TR = P \times Q$$

Information:

TR (Total Revenue) : Acceptance

P (Price) : Dodol Selling Price

Q (Quantity) : Amount of Dodol Production.

### Income

According to (Anisa et al., 2020) revenue is the cash flow of assets or disposals arising from the provision of services, provision of production of goods, or other business activities. It can be calculated using the formula:

$$I = TR - TC$$

Information:

I (Profit) : Income (Rp/Year)

TR (Total Revenue) : Revenue (Rp/Year)

TC (Total Cost) : Total Cost (Rp/Year).

### Revenue Cost Ratio (R/C Ratio)

According to Sajari (2017), the R/C Ratio is the comparison between revenue with total cost. To calculate the R/C Ratio is to use the following formula:

$$R/C \text{ Ratio} = \frac{\text{Penerimaan Total (TR)}}{\text{Biaya Total (TC)}}$$

Information:

R/C Ratio = Revenue Cost Ratio

Total Revenue = Total Revenue (TR)

Total Production Cost = Total Cost (TC).

### Break Even Point(BEP)

$$\text{Break Even Point(BEP) Revenue (Rp)} = \frac{\text{Total Biaya Tetap}}{1 - \frac{\text{Biaya Variabel}}{\text{Penerimaan}}}$$

$$\text{Break Even Point(BEP) Production} = \frac{\text{Total Biaya Tetap}}{(\text{Harga Jual (Kg)} - \text{Biaya Variabel Per Unit})}$$

Information:

1. A business is feasible if Production > BEP Production,

2. A business is feasible if Revenue > Revenue BEP.

## RESULTS AND DISCUSSION

### Respondent Characteristics

Respondent characteristics are used for the diversity of respondents observed in the study. Respondent characteristics in this study are described by the variables of respondent gender, respondent age, respondent family members, respondent education level, and respondent business duration. Respondents in this study were dodol business owners who were the researcher's samples in the study in Paya Perupuk Village and Pematang Tengah Village in Tanjung Pura District, Langkat Regency.

Table 1. Respondent Characteristics

No	Category	Number of people)	Percentage
1	Gender		
	a. Man	15	52
	b. Woman	14	48
2	Age		
	a. 35-40	4	14
	b. 41-45	8	28
	c. 46-50	2	7
	d. 51-55	10	34
	e. 56-60	2	7
	f. 61-65	3	10
3	Family members		
	a. 2	13	45
	b. 3	9	31
	c. 4	6	21
	d. 6	1	3
4	Education		
	a. SD	5	17
	b. JUNIOR HIGH SCHOOL	8	28
		13	45
	c. SENIOR HIGH SCHOOL	3	10
	d. S1		
5	Length of Business		
	a. 5-15	8	28
	b. 16-25	12	41
	c. 26-35	9	31

Based on the table above, the characteristics of respondents based on gender, the majority of respondents are male as many as 15 people (52%), while women are 14 people (48%). This shows that gender involvement in the dodol business is quite balanced, although still dominated by men. In terms of age group, the most respondents are in the 51-55 year age range as many as 10 people (34%), which reflects the dominance of business actors from the productive age group who are mature in terms of experience. The fewest number of respondents are in the 46-50 and 56-60 year age groups, each as many as 2 people (7%). In terms of the number of family dependents, the majority of respondents have 2 family members, with a total of 13 people (45%). Meanwhile, the respondent with the largest number of dependents, namely 6 people, only has 1 person (3%). This shows that most business actors run their businesses in small family units. The level of education of respondents also shows variation. As many as 13 people (45%) are high school graduates, making them the largest education group. Followed by junior high school graduates as many as 8 people (28%), elementary school graduates 5 people (17%), and bachelor's degree graduates as

many as 3 people (10%). These data show that most business actors have secondary level formal education. According to Marjan (2018), the higher a person's level of education, the better the knowledge they have, and vice versa. In terms of the length of time running the business, the majority of respondents have been running a dodol business for 16–25 years, which is 12 people (41%). Then, 9 respondents (31%) have been running their business for 26–35 years, while 8 people (28%) are in the 5–15 year category. This shows that most business actors have had quite a long experience in managing a dodol business sustainably.

### Production cost

Costs can be defined as the value of all inputs used in the production process, both consumable and non-consumable inputs (Widyantara, 2018).

Table 2. Average Production Costs of Dodol Entrepreneurs in Paya Perupuk Village and Pematang Village, Tanjung Tengah District, Pura District, 2024

No	Cost Description	Average (Rp/Year)	Amount (Rp/Year)
1	Average Fixed Cost:		
	a) Equipment Depreciation Cost	1,963,582.76	
	b) Building Rental	8,482,758.62	
	c) Electricity	1,423,793.10	
	<b>Average Total Fixed Cost</b>		<b>11,870,134.48</b>
2	Average Variable Cost		
	a) Raw Material Cost	33,076,048.28	
	b) Labor	22,377,931.03	
	<b>Average Total Variable Cost</b>		<b>55,453,979.31</b>
	<b>Total Average Cost of Production</b>		<b>67,324,113.79</b>
3	<b>Total Average Revenue</b>		<b>181,655,172.41</b>
4	<b>Total Average Income</b>		<b>114,331,058.62</b>

Based on the table above, it can be seen that after adding up the fixed costs and variable costs, then the total average production costs of the dodol business in Tanjung Pura District, Langkat Regency is IDR 67,324,113.79. The production of dodol in Paya Perupuk Village and Pematang Tengah Village, Tanjung Pura District is 94,320 kg/year with an average percentage of 3,252.41 kg/year. The total average income obtained by dodol entrepreneurs is Rp181,655,172.41/year, and the total average income obtained by dodol entrepreneurs in Paya Perupuk Village and Pematang Tengah Village, Tanjung Pura District is Rp114,331,058.62/Year.

### R/C Ratio

R/C Ratio is a value that shows the comparison between business income (Revenue = R) and Total Costs (Cost = C).

Table 3. R/C Ratio Cost of Dodol Sales in Paya Perupuk Village and Pematang Tengah Village, Tanjung Pura District 2024

No	Description	Amount (Rp)	Average Amount (Rp)/Year
1	Receipts (Rp)	5,268,000,000	181,655,172.41
2	Total Production Cost (Rp)	1,952,399,300	67,324,133.79
<b>R/C Ratio</b>		<b>2.70</b>	<b>2.70</b>

From the comparison between business income and total production costs above, it can be concluded that the dodol business in Tanjung Pura District, Langkat Regency is feasible/profitable because the R/C Ratio value is greater than 1 and/or R/C of  $2.70 > 1$ . The R/C Ratio value of 2.70 means that every expenditure of Rp1,000,000 will get an income of Rp2,700,000.

### Break Even Point

According to Wahyuni (2021), BEP analysis is used to see the break-even point of a business being carried out.

Table 4. Break Even Point Analysis of Dodol Sales Business in Tanjung Pura District in 2024

Description	Mark
1. Acceptance:	
a. Total Production (Kg)	3,252.41
b. Price (P)	54,137.93
c. Average Total Revenue	181,655,172.41
2. Cost:	
a. Total Variable Cost (VC)	55,453,979.31
b. Variable Cost Per Unit (AVC)	17,050.11
c. Total Fixed Cost (FC)	11,870,134.48
d. Total Cost (TC)	67,324,133.79
<b>BEP Revenue (Rp)</b>	<b>17,086,705.74</b>
<b>BEP Production (Kg)</b>	<b>320.05</b>

Based on table 4 above, it shows that the BEP income (Rp) for the dodol business in Tanjung Pura District, Langkat Regency is Rp. 17,086,705.74. The income from the dodol business is Rp.181,655,172.41 greater than the BEP value of the revenue obtained. And the table above shows that the BEP production results in the dodol business are 320.05 Kg. The average production of the dodol business is 3,252.41 Kg greater than the BEP value of production obtained. Judging from the results of the BEP revenue and BEP production above, it means that the dodol business is making a profit. In accordance with the opinion of Antowiyono (2017) who said that if a business has the same amount of sales as the costs incurred, then the business is said to be break-even, this is in accordance with the assessment criteria which



state that a business is feasible if  $\text{revenue} > \text{BEP Revenue}$  and if  $\text{production} > \text{BEP production}$  then the business is feasible to run.

## **CONCLUSION AND SUGGESTIONS**

### **Conclusion**

Based on the results of the study and discussion of this research, the following conclusions can be drawn:

1. Based on the financial feasibility analysis of the dodol business in Tanjung Pura District, Langkat Regency, the R/C Ratio value was 2.70, which is greater than 1, so it can be concluded that the dodol business in Tanjung Pura District, Langkat Regency is feasible to run and develop.
2. With revenue greater than BEP revenue and production higher than BEP production, the dodol business in Tanjung Pura District can be said to be feasible to run. This is in accordance with the assessment criteria which state that a business is feasible if  $\text{revenue} > \text{BEP Revenue}$  and if  $\text{production} > \text{BEP production}$ .

### **Suggestion**

Based on the research results and conclusions obtained, the suggestions that the author can provide for dodol entrepreneurs in Tanjung Pura District, Langkat Regency are:

1. In relation to the improvement and development of the dodol business in the future, business actors should consider increasing the scale of production to maximize profits, of course while still paying attention to production capacity and market demand.
2. To increase competitiveness and attract more consumers, business actors should start developing variations of dodol products, both in terms of taste, packaging, and shape innovations that suit market tastes.
3. It is hoped that there will be support from the local government or related institutions in the form of training, access to capital, and promotional facilities so that business actors can continue to develop and increase their contribution to the regional economy.

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