

Business Feasibility Analysis in the Dodol Pineapple Agroindustry in Jalancagak District, Subang Regency

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Abstract

Jalancagak District is the only district that produces the highest pineapple fruit in Subang Regency. The pineapple dodol agroindustry in Subang Regency in its marketing has problems, namely the lack of promotion and distribution of products by pineapple dodol entrepreneurs which causes marketing to be limited, sales tend to fluctuate so that the business is not developing well. Pineapple dodol is one of the processed pineapple fruit mixed with sticky rice flour, sugar, coconut milk, and other ingredients. This study has the following objectives: (1) To analyze the costs, revenues, and income of the pineapple dodol agroindustry in Jalancagak District, Subang Regency. (2) To determine the feasibility of the pineapple dodol agroindustry business in Jalancagak District, Subang Regency. The research method used is quantitative and qualitative descriptive research. In this study, the researcher determined 10 people as respondents using the Saturated Sampling method (census). The results of the study showed that: (1) The average variable cost is IDR 8,139,500/month. The average fixed cost is IDR 1,287,063/month. So the average total production cost is Rp. 9,426,563/month. The average total income is Rp. 16,775,000 with an average production quantity of 305 kg/month and an average selling price of Rp. 55,000/kg. The average pineapple dodol income is Rp. 7,348,437/month (2) The BEP value of pineapple dodol production is 43 kg/month. The BEP price is Rp. 430.907/kg. BEP income from sales is Rp. 2,337,844/month. (3) The results of the R/C Ratio calculation obtained a value of 1.78. This states that all pineapple dodol entrepreneurs > 1, meaning that the pineapple dodol agroindustry in Jalancagak District, Subang Regency is declared to be run and cultivated.

Keywords: Business Feasibility, Cost Analysis, Pineapple, Pineapple Dodol.

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INTRODUCTION

The agricultural sector in Indonesia is one of the sectors that plays an important role in the national economy in terms of economic development and supports the economic activities of the community in general. The agricultural sector is also a biological resource management activity to produce food, industrial materials, energy sources and efforts to preserve environmental resources (Putri, 2021). Agroindustry comes from two words, namely *agricultural* and *industry* which means an industry that uses agricultural products as its main raw materials. Pineapple is one of Indonesia's commodities that plays an important role in agriculture. Pineapples are a mainstay export commodity in the form of juice and canned (Rodliyaton *et al.* 2019). Pineapple production in Indonesia based on the Central Statistics Agency in 2020, West Java is in third place with a total production of 250,942.00 tons, after Central Java with a total production of 252,221.00 tons and Lampung with the first position of 662,588.00 tons. Pineapple production in West Java has increased significantly judging from the amount of production in 2019 which amounted to 228,601.00 tons and in 2020 there was an increase in production amounting to 22,341.00 tons.

Subang Regency is one of the highest pineapple production centers in West Java Province with the total production in 2019 of 177,357.60 tons of pineapples that can be produced (Subang Regency Central Statistics Agency, 2020). The high potential for pineapple production in Jalancagak District has a fairly good market opportunity, but there are several obstacles for marketing. These obstacles include limited marketing, especially during the harvest there is overproduction and many farmers and traders have difficulty marketing fresh pineapples. Fresh pineapples are easily damaged, not durable, resulting in low selling prices. The agroindustry processing fresh pineapples into dodol is a potential business to be developed. The problem that occurs in the pineapple dodol agroindustry is that it looks potential to be developed, but the marketing carried out by business actors is not optimal and the public's interest in running the business is very minimal, considering that Jalancagak District is the only sub-district that produces the highest pineapple in Subang Regency. The pineapple dodol agroindustry in Subang Regency in its marketing experiences problems, namely the lack of promotion and distribution of products by pineapple dodol entrepreneurs which causes marketing to be limited, sales that tend to fluctuate resulting in less developed business. Based on the description above, the researcher is interested in conducting a research entitled "Business Feasibility Analysis in the Pineapple Dodol Agroindustry in Jalancagak District, Subang Regency".

RESEARCH METHODS

The type of research to be conducted is quantitative and qualitative descriptive research. The research area is carried out *purposively* or deliberately based on certain considerations. This research was conducted in Jalancagak District, Subang Regency with the consideration that in this area there are many pineapple dodol producers. The sampling technique in this study is *Non Probability Sampling* using the *Purposive Sampling* method, which is a sampling technique using criteria that have been determined by the researcher in selecting samples. The population of this study is dodol household industry business owners located in Jalancagak District and spread over several villages totaling 10 respondents, who come from Tambakan, Tambak Mekar, and Kumpay Villages. The type of data in this study consists of primary data and secondary data. From primary data is data obtained directly from the pineapple dodol agroindustry which has been determined as respondents or from samples using questionnaire and interview instruments. Secondary data is complementary data obtained from related agencies and supports this research, including literature studies from various sources, journals, books, research results and limited publications of data archives from institutions or agencies, among others, sourced from the Central Statistics Agency.

RESULTS AND DISCUSSION

1. Cost Analysis

The cost of the pineapple agro-industry is the total cost incurred during the running of the business. The costs used in this study are divided into two, namely fixed costs and variable costs. Fixed costs are costs that are large or small not affected by production. Meanwhile, the variable cost of the cost is large or small influenced by production. The following in Table 6 is the average fixed costs incurred by pineapple dodol agroindustry entrepreneurs in Jalancagak District, Subang Regency.

Table 1. Analysis of Fixed Costs of Pineapple Dodol Processing in Jalancagak District, Subang Regency

Types of Fixed Fees	Average depreciation/month (Rp)
Pineapple grating machine	157.904
Mixer machine	237.000
Flour Machine	375.000
Coconut grating machine	296.000
Wok	140.667
Talam	20.800
Washbasin	33.000
Knife	12.542
Squirt	14.150
Total Fixed Cost (TFC)	1.287.063

Source: Primary data processed, 2025

In the table above, the average total fixed cost incurred by pineapple dodol agroindustry entrepreneurs in Jalancagak District, Subang Regency is IDR 1,287,063/month. The largest average fixed cost used in the pineapple dodol processing process is a flour machine with a value of IDR 375,000/month, this is because the flour machine is an equipment that has a high purchasing value but a relatively low economic life. Meanwhile, the smallest average fixed cost used in the pineapple dodol processing process is a knife with a value of Rp12,542/month, this is due to the low purchase value and high economic lifespan, which is around 6-12 months. In addition to fixed costs, there are also short-term expenses and needs can change, namely variable costs. The following is a variable biya of pineapple dodol processing in Jalancagak District, Subang Regency.

Table 2. Analysis of Variable Costs of Pineapple Dodol Processing in Jalancagak District, Subang Regency

Variable cost types	Average variable cost/month (Rp)
Pineapple Fruit	1.855.000
Mentega	139.100
Glutinous Rice Flour	1.290.600
Gula	51.000
Packaging	1.338.500
Plastic	1.464.800
Label	5.500
Workforce	1.870.000
Electricity	125.000
Sum	8.139.500

Source: Primary data processed, 2025

In the table above, the average total fixed cost incurred by pineapple dodol agroindustry entrepreneurs in Jalancagak District, Subang Regency is IDR 1,287,063/month. The largest average fixed cost used in the pineapple dodol processing process is a flour machine with a value of Rp375,000/month. Meanwhile, the smallest average fixed cost used in the pineapple dodol processing process is a knife with a value of Rp12,542/month. In addition to fixed costs, there are also short-term expenses and needs can change, namely variable costs. The following is a variable biya of pineapple dodol processing in Jalancagak District, Subang Regency.

Table 8. Analysis of Variable Costs of Pineapple Dodol Processing in Jalancagak District, Subang Regency

Types of Fixed Fees	Average depreciation/month (Rp)
Pineapple grating machine	157.904
Mixer machine	237.000
Flour Machine	375.000
Coconut grating machine	296.000
Wajan	140.667
Talam	20.800
Washbasin	33.000
Pisau	12.542
Squirt	14.150
Total Fixed Cost (TFC)	1.287.063

Source: Primary data processed, 2025

The average total variable cost incurred by pineapple dodol agroindustry entrepreneurs in Jalancagak District, Subang Regency is IDR 8,139,500/month. The average of the largest variable cost used in the pineapple dodol processing process is labor costs with a value of IDR 1,870,000. The following in table 8 is the average variable costs incurred by pineapple dodol entrepreneurs in Jalancagak District, Subang Regency.

Table 9. Analysis of Production Costs of Pineapple Dodol Processing in Jalancagak District, Subang Regency

Production Cost Details	Average production cost/month (Rp)
Fixed Fees	
Pineapple grating machine	157.904
Mixer machine	237.000
Flour Machine	375.000
Coconut grating machine	296.000
Wajan	140.667
Talam	20.800
Washbasin	33.000
Pisau	12.542
Squirt	14.150
Fixed Cost Housing	1.287.063
Variable Costs	
Pineapple Fruit	1.855.000
Mentega	139.100
Glutinous rice flour	1.290.600
Gula	51.000
Packaging	1.338.500
Plasik	1.464.800
Label	5.500
Workforce	1.870.000
Electricity	125.000
Variable Cost Amount	8.139.500
Total Production Cost	9.426.563

Source: Primary data processed, 2025

The total production cost (TC) incurred by pineapple dodol agroindustry entrepreneurs is IDR 9,426,563/month. This is obtained from the sum of total fixed costs (TFC) and total variable costs (TVCs), with the calculation process as follows:

$$TC = TFC + TVC$$

$$TC = \text{Rp. } 1,287,063 + \text{Rp. } 8,139,500$$

$$TC = \text{IDR } 9,426,563$$

2. Revenue Analysis

Income is the ultimate goal of the pineapple dodol agroindustry business carried out by pineapple dodol entrepreneurs in Jalancagak District, Subang Regency. Revenue (FI) is obtained from the difference between receipts (TR) minus all expenses (TC) incurred. The average income obtained by the cultivators in this study of Rp. 16,775,000/month was obtained from the total average quantity of pineapple dodol production amounting to 305kg/month. Meanwhile, the average selling price marketed by entrepreneurs is IDR 70,000/kg. The following calculation of the receipt of pineapple dodol agroindustry in Jalancagak District, Subang Regency is as follows:

$$TR = p \cdot q$$

$$TR = \text{Rp. } 55,000 \times 305$$

$$TR = \text{Rp. } 16,775,000/\text{month}$$

Meanwhile, the total income received by pineapple dodol entrepreneurs in Jalancagak District, Subang Regency is as follows:

$$FI = TR - TC$$

$$FI = \text{IDR } 16,775,000 - \text{IDR } 9,426,563$$

$$FI = \text{Rp. } 7,348,437/\text{month}$$

The results of the above income calculation were obtained at Rp. 7,348,437/month. This shows that the pineapple dodol processing agroindustry in Jalancagak District, Subang Regency is still profitable for pineapple dodol entrepreneurs. Because the revenue earned is greater than the costs incurred.

3. Break Event Point Analysis

Break Even Point analysis aims to determine the level of activity at which revenue from sales is equal to the sum of all variable costs and fixed costs.

BEP Production :

$$BEP (Q) = \frac{FC}{(TR / (\text{Total Production}) - VC / (\text{Total Production}))}$$

$$BEP (Q) = 1,287,063 / (55,000 / 305 - 24,721 / 305)$$

$$BEP (Q) = 1,287,063 / 30,279$$

$$BEP (Q) = 43 \text{ kg}$$

The average quantity of pineapple dodol production produced in one month is 305 kg. while the value of the BEP Production obtained is 43 kg, which means that in order not to suffer losses, pineapple dodol entrepreneurs must produce pineapple dodol production of at least 348kg / season. So based on real production results, the average production quantity produced by pineapple dodol entrepreneurs, which is 305 kg/month, has exceeded the value of the Production BEEP, and this will be a benefit for pineapple dodol agroindustry entrepreneurs in Jalancagak District, Subang Regency.

BEP Price :

$$BEP (P) = (\text{Total Cost}) / (\text{Total Production})$$

$$BEP (P) = 9,426,563 / 305$$

$$\text{BEP (P)} = \text{Rp. } 30,907$$

The BEP The price obtained is Rp. 30,907, which means that pineapple dodol entrepreneurs do not suffer losses, so pineapple dodol entrepreneurs do not sell pineapple dodol below the average price of Rp 30,907/kg.

$$\text{BEP Admission (Rp)}$$

$$\text{BEP (Rp)} = \text{FC}/(1 - \text{VC}/\text{TR})$$

$$\text{BEP (Rp)} = 1,287,063/(1 - 0.45)$$

$$\text{BEP (Rp)} = 2,337,844$$

BEP Revenue in this study is Rp. 2,337,844 which means that pineapple dodol entrepreneurs at least get revenue from sales of Rp. 2,337,844/month so as not to suffer losses, while in real sales pineapple dodol entrepreneurs are able to generate an average revenue of Rp. 16,775,000/month. Actual receipts are greater than the value of the Receipts' BEP. The extra difference obtained will be a benefit for pineapple dodol entrepreneurs in Jalancagak District, Subang Regency. The results of the BEP calculation show that the pineapple dodol processing business in one month has reached the break-even point of production, the break-even point of the price, and the break-even point of receipt. Based on the explanation above, it can be concluded that the pineapple dodol agroindustry in Jalancagak District, Subang Regency is profitable.

4. R/C Ratio Analysis

The R/C ratio analysis is one of the indicators to see the success of the pineapple dodol business in pineapple dodol entrepreneurs in Jalancagak District, Subang Regency. This analysis aims to see how much revenue the pineapple dodol entrepreneurs get from every rupiah invested in pineapple dodol processing business activities. Based on the results of the calculation of the R/C Ratio, a value of 1.78 can be stated that the R/C ratio is > 1 or the business is declared feasible to run and be pursued. The following are the results of the R/C Ratio calculation carried out.

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

$$\text{R/C} = 16,775,000/9,426,563$$

$$\text{R/C} = 1.78$$

Looking at the results of the R/C Ratio calculation above, the pineapple dodol processing business can be declared feasible to run and operate. This is also proven by the researcher by conducting a partial feasibility calculation for each pineapple dodol entrepreneur. Based on the results of the calculations contained in the appendix, it was obtained that the lowest R/C ratio value of a pineapple dodol entrepreneur named Mrs. Khotimah was 1.01 while the highest R/C ratio value was 3.9 from a dodol entrepreneur named Mr. Jajang Koswara, the remaining 9 pineapple dodol entrepreneurs had an R/C ratio value of $>$ of 1.25. Pineapple dodol entrepreneurs who have a below-average R/C ratio occur because of the high costs incurred by pineapple dodol entrepreneurs, while the revenue and income obtained are quite low, but still above the costs incurred. This is also related to the quantity or scale of production that is being pursued and the utilization of every production factor that has not been maximized. Thus, the difference between revenue and total costs incurred is not too high. On the other hand, pineapple dodol entrepreneurs who have a higher average R/C ratio value, have a much higher acceptance point than the costs incurred. The results of this study can also be concluded that the higher the R/C ratio value obtained (>1), the more every rupiah invested in the business activity will return with a higher rupiah value. In general, all pineapple dodol entrepreneurs in this study have an R/C ratio of more than 1. This means that the pineapple dodol agroindustry in Jalancagak District, Subang Regency is feasible to be tried and run.

CONCLUSION

There are 2 types of costs incurred in one month carried out by pineapple dodol entrepreneurs, namely fixed costs and variable costs. The average variable cost incurred by pineapple dodol entrepreneurs is Rp. 8,139,500/month. Meanwhile, the average fixed cost incurred is Rp. 1,287,063/month. So that the average total production cost that must be incurred by pineapple dodol entrepreneurs is Rp. 9,426,563/month. The average total revenue obtained is Rp. 16,775,000 with the average production quantity produced is 305kg/month and the average selling price is Rp. 55,000/kg. Based on these calculations, it was found that the average income generated by pineapple dodol entrepreneurs was Rp. 7,348,437/month. Break Even Point (BEP) analysis aims to determine the level of activity where the revenue from sales is equal to the sum of all variable costs and fixed costs. In this study, there are three calculations, namely, Production BEP, Price BEP, and Revenue BEP. The BEP value of the production obtained in the pineapple dodol agroindustry is 43 kg/month, meaning that in order for this business not to suffer losses, pineapple dodol entrepreneurs must produce at least 43 kg of pineapple dodol production in one month. Based on real production results, the quantity of production produced by pineapple dodol entrepreneurs is 305 kg/month, which means that it has exceeded the production BEP value. This will be an advantage for pineapple dodol entrepreneurs. In the BEP the price is Rp30,907/Kg while the average selling price received by pineapple dodol entrepreneurs is IDR 55,000/kg, meaning that pineapple dodol entrepreneurs have made a profit. Meanwhile, the value of the BEP of revenue obtained by pineapple dodol entrepreneurs is Rp. 2,337,844, which means that in order not to suffer losses, pineapple dodol entrepreneurs must get a total revenue from sales of at least Rp. 2,337,844/month. Based on the explanation above, it can be concluded that the pineapple dodol agroindustry in Jalancagak District, Subang Regency is profitable. The results of the R/C ratio calculation obtained a value of 1.78. In addition, based on the results of the partial calculation of each pineapple dodol entrepreneur, the lowest R/C ratio value was obtained at 1.1 and the highest R/C ratio value was 3.9. This states that all pineapple dodol entrepreneurs > 1 means that the pineapple dodol agroindustry in Jalancagak District, Subang Regency is declared to be run and cultivated.

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