

*Article*

# Business Feasibility Study Analysis of "Susu Ubi Sayang" in Jatinangor, Sumedang (Viewed from Market, Technical, Legal, and Financial Aspects)

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**Abstract:** This study assesses the feasibility of "Susu Ubi Sayang," a sweet potato milk product from Sayang Village, Jatinangor District, using the One Village One Product (OVOP) approach to support stunting prevention efforts in Sumedang, Indonesia. Sweet potatoes, rich in essential nutrients, present an innovative opportunity to combat malnutrition, yet limited research exists on their commercial viability as a health-focused product. The study examines legal, market, production, and financial factors to evaluate the business potential. Results reveal a significant demand of 50 bottles daily at a price range of IDR 10,000–15,000, with financial indicators including a Net Present Value (NPV) of Rp. 12,552,900, a Profitability Index (PI) above 1, and an Internal Rate of Return (IRR) of 10.47%, exceeding the 9% interest rate. These findings suggest that "Susu Ubi Sayang" is a viable business that could enhance local economic welfare and contribute to public health objectives in Sayang Village.

**Keywords:** Business Feasibility Study, MSMEs, Stunting, Financial Analysis, NPV, PI, IRR

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## 1. Introduction

The development of MSMEs in Indonesia, especially in rural areas such as Jatinangor Village, has become one of the driving forces of the local economy. Sayang Village in Jatinangor Subdistrict, which previously depended on the agricultural sector, has transformed towards the service sector, trade, and the development of small and medium enterprises (SMEs). In this context, local product processing is one of the effective strategies to improve community welfare. Based on observations, the potential for agricultural products that can be developed and can increase added value is sweet potato. The sale of sweet potato commodity harvests is generally still sold raw by sweet potato farmers without processing.

This sweet potato processing effort can also strengthen the SME sector in Sayang Village with the support of a Village-Owned Enterprise (BUMDes) to ensure the sustainability and success of the product in the market. The One Village One Product (OVOP) approach is a strategy that aims to develop the unique potential of a region by producing superior products that are globally competitive. In various regions, such as in Sayang Village, Jatinangor District, the OVOP program has been implemented to improve local economic welfare through the empowerment of local products and MSMEs. [1]

Therefore, an effort that can be made in increasing added value and creating a product is by processing sweet potatoes added with milk to create a product, namely "Susu

Ubi Sayang". Sweet potato-based products, such as this "Susu Ubi Sayang", have great prospects in adding economic value to local products. Because the innovation of processing sweet potatoes into sweet potato milk can open up new opportunities for the community, and support efforts to alleviate the problem of stunting through products that are rich in nutrients.

Sayang Village in Jatinangor Sub-district, which was previously dependent on the agricultural sector, is now facing challenges in increasing the added value of its local products, especially sweet potatoes. Currently, farmers in the village tend to sell their sweet potato harvest in its raw state, resulting in suboptimal economic potential. In addition, there are high cases of stunting in the area, especially among pregnant women and children, so a highly nutritious product innovation is needed to help overcome the problem.

The "Susu Ubi Sayang" product was developed as a solution in the form of a sweet potato-based drink processed into milk that is rich in nutrients. However, the production and marketing process of this product still faces several obstacles. The production of "Susu Ubi Sayang" is still done manually, limiting production capacity and efficiency. In addition, the marketing of this product was initially only done at local events, making its market penetration limited. This causes challenges in expanding consumer reach and increasing business scale.

Another problem faced is the environmental impact of using single-use plastic bottles as milk packaging. If not managed properly, this could add to the mountain of plastic waste in the village. In addition, reliance on the local raw material, sweet potato, is also risky, especially in the event of supply disruptions or climate change affecting agricultural production

## 2. Materials and Methods

Feasibility study according to (Suliyanto, 2011) according to an in-depth study of a business idea about whether or not it is feasible to implement the idea. Conducted on several aspects of business feasibility (Suliyanto, 2011), namely market aspects, technical aspects, legal and environmental aspects and financial aspects.

### Market Aspect Analysis

According to Sunyoto (2014: 32) in the journal [2], the business activity system known as marketing aims to achieve target markets and company goals by planning, pricing, promoting, and distributing goods. The market consists of all real and potential buyers of a product. The purpose of the market aspect is to determine the product price and marketing strategy to determine whether the business creation plan is feasible or not [3]. Data on the population of the three Jatinangor sub-districts (Sayang, Jatiroke, Cintamulya) was collected from the Central Statistics Agency (BPS) for the feasibility study. Forecasting is the art and craft of predicting future events. In this market segment, business projections are made for the next five years. The feasibility of the market element is determined by the following factors: The market element's feasibility is determined by the following factors: market opportunities to generate profitable results, competitive product selling prices, and marketing approaches that the company can use [4].

The target market for this product is all walks of life, with the main focus on pregnant women and children who need high nutritional intake [5]. This is in accordance with current market needs, given the high number of stunting cases in the Sumedang area, especially in Sayang Village. This product is expected to be a practical and affordable solution to improve community nutrition. With a selling price ranging from Rp 10,000 to Rp 15,000 per bottle, "Susu Ubi Sayang" has economic appeal, while also providing significant health benefits. In addition, market analysis revealed that daily demand for the product is estimated at 50 bottles, indicating positive initial enthusiasm from the local community. This is supported by the fact that to date there are no direct competitors

offering a similar product in the region, giving "Susu Ubi Sayang" a competitive advantage. Nonetheless, market penetration is currently still limited to local events, thus a broader marketing strategy is needed to increase product awareness and reach. Marketing through digital platforms as well as collaboration with local health programs are expected to open up expansion opportunities and strengthen the position of "Susu Ubi Sayang" as a regional flagship product.

#### Technical Aspect Analysis

The determinants of the technical aspect feasibility analysis are as follows: service design using standard operating procedures; service capacity planning, which is the amount of service that can be produced in a certain time by considering the technical capabilities and equipment available, as well as the most efficient cost [4]. Facility planning is the process of allocating the number of facilities based on the type and capacity of the service [6].

The operational aspects of "Susu Ubi Sayang" include sweet potato processing, mixing with milk and sugar, and packaging in sterile 250 ml bottles. Production is carried out in the Sayang Village hall, with equipment such as grinding machines, ovens and blenders, although many steps are still done manually. To reduce environmental impact, used plastic bottles are crafted into plastic flowers. This approach maintains product quality while empowering local communities through sustainable production

Table 1. Technical Aspect Analysis

Material	Tool	Process
1. Sweet Potato 2. Milk 3. Granulated Sugar 4. Water	1. Food Scale 2. Blender 3. Steamer 4. Oven 5. Cake pan 6. Cassava grinding machine 7. Sieve 8. Sticker printer machine 9. Bottle sterilizer 10. Mini freezer	1. Peel the sweet potato skin 2. Wash until clean 3. Cut the sweet potato into pieces 4. Put it in a steamer 5. Steam over medium heat for +-30 minutes 6. After the sweet potato is steamed, the next step is to mash it until smooth 7. Put it in a baking pan and flatten it 8. Put it in the oven <ol style="list-style-type: none"> <li>a. First oven until half dry (Then blend it)</li> <li>b. Second oven, wait until it is very dry (but it should not burn)</li> </ol> 9. After it is dry, transfer it to another container and wait until it cools 10. When it is cold, then grind the sweet potato until smooth 11. Mix all the ingredients such as milk, sugar and sweet potato juice, then blend it after that strain it until it is dry and the sweet potato milk is separate 12. Put it in a sterilized bottle 13. Then stick the sticker on the bottle 14. Sweet potato milk is ready, don't forget to put it in the freezer/cooler

The "Susu Ubi Sayang" production process involving cleaning, steaming, drying and mashing followed by blending of additives creates a highly nutritious product.

### Legal Aspect Analysis

According to, before starting a business there are rules that must be met, the goal is for the company to comply with regulations and meet local licensing requirements. The Business Identification Number is a legal element. Every actor must have a Company Registration Certificate (TDP) and a Business identity number (NIB) [7].

### Financial Aspect Analysis

According to Dedi & Nurdin (2020: 19) in (Retna Widianingsih, R.R Wening Ken Widodasih, 2023) One of the components used to organize all of the company's financial resources is the financial aspect. This aspect is very important for the operation of a business because if other aspects are considered achievable while the financial aspect produces unachievable results [8].

## 3. Results

The company will not run smoothly because it will not provide economic benefits. The cost calculation for this "Susu Ubi Sayang" manufacturing business includes calculating initial investment costs, calculating working capital, and calculating profits and cash. Payback Period (PP), Net Present Value (NPV), Profitability Index (PI), and Incremental Rate of Return (IRR) analysis.

Estimated Revenue of "Susu Ubi Sayang" during:

$$\begin{aligned} \text{Weekly} &= 75 \text{ bottles} \times 5 \text{ days} = 375 \text{ bottles} \\ &= 1,500 \text{ bottles} \end{aligned}$$

So, the monthly income that will be obtained

$$1,500 \text{ bottles} \times \text{Rp. } 15.000 = \text{Rp. } 22.500.000.$$

### 1. Payback Periode

This calculation can be seen from the calculation of net cash obtained in each year. [9].

$$\begin{aligned} \text{Payback Periode} &= \frac{\text{Outlay} \times 1 \text{ Year}}{\text{Proceed}} \\ &= \frac{\text{Rp. } 12.570.000 \times 12}{\text{Rp. } 9.930.000} \\ &= \frac{\text{Rp. } 150.840.000}{\text{Rp. } 9.930.000} \\ &= 15,2 \text{ month} \\ &= 15,2 : 12 \text{ (Changed to Year)} \\ &= 1 \text{ year } 2 \text{ months } 6 \text{ days} \end{aligned}$$

Based on the calculation results above, it can be concluded that the business capital of "Susu Ubi Sayang" of Rp. 12,570,000 will be recovered within a period of 1 year 2 months 6 days.

### 2. Net Present Value (NPV)

The definition of NPV or Net Present Value according to R. Agus Sartono (2010:195), Net Present Value is the difference between the present value of net cash flow or also known as the process. [10]

$$\begin{aligned} \text{NPV} &= \frac{42.503.000}{(1+0,10)^1} + \frac{42.503.000}{(1+0,10)^2} + \frac{42.503.000}{(1+0,10)^3} - 29.497.000 \\ &= 38.639.090 + 19.319.545 + 12.879.696 - 29.497.000 \\ &= 70.838.331 - 29.497.000 \end{aligned}$$

= Rp. 41.341.331

Table 2. Net Present Value (NPV)

Year	DF (9%)	Proceed	PV Proceed
1	0.917	Rp. 9.930.000	Rp. 9.105.810
2	0,841	Rp. 9.930.000	Rp. 8.351.130
3	0,772	Rp. 9.930.000	Rp. 7.665.960
			Rp. 25.122.900

PV Proceed	Rp. 25.122.900
PV Outlay	(Rp. 12.570.000)
NPV	Rp. 12.552.900

The NPV value of "Susu Ubi Sayang" is Rp. 12,552,900, and with this value the investment is accepted because it has a positive result.

### 3. Profitabilitas Index (PI)

$$\begin{aligned}
 \text{PI} &= \frac{\text{PV Proceed}}{\text{PV Outlay}} \\
 &= \frac{\text{Rp. 25.122.900}}{\text{Rp. 12.570.000}} \\
 &= 1,99
 \end{aligned}$$

Because "Susu Ubi Sayang" has a PI value of more than 1, the investment is acceptable.

### 4. Internal Rate of Return (IRR)

Table 3. Internal Rate of Return (IRR)

Year	DF (9%)	Proceed	PV Proceed 1	DF (11%)	PV Proceed 2
1	0.917	Rp. 9.930.000	Rp. 9.105.810	0,901	Rp. 8.946.930
2	0,841	Rp. 9.930.000	Rp. 8.351.130	0,812	Rp. 8.063.160
3	0,772	Rp. 9.930.000	Rp.7.665.960	0.731	Rp. 7.258.830

PV Proceed	Rp. 25.122.900	Rp. 24.268.920
PV Outlay	(Rp. 12.570.000)	(Rp. 12.570.000)
NPV	Rp. 12.552.900	Rp. 11.698.920

$$\begin{aligned}
 \text{IRR} &= i1 + \frac{\text{NPV1}}{\text{PV Proceed 1} - \text{PV Proceed 2}} \times (i1 - i2) \\
 &= 9\% + \frac{12.552.900}{25.122.900 - 24.268.920} \times (9\% - 11\%) \\
 &= 9\% + \frac{12.552.900}{853.980} \times (0,08) \\
 &= 9\% + (14,699 \times 0.1) \\
 &= 9\% + 1,47\% \\
 &= 10,47\% \\
 \text{IRR} &= 10,47\% \\
 \text{IRR} &> i \\
 10,47\% &> 9\%
 \end{aligned}$$

This means that since the IRR of "Susu Ubi Sayang" is greater than the interest rate ( $i$ ), the investment is acceptable.

#### 4. Discussion

##### Market Aspect Feasibility Analysis

Based on the results of the market aspect data processing, the feasibility results are based on:

1. The calculation results for the market opportunity of "Susu Ubi Sayang" are positive.
2. The selling price of the product is able to compete with other umkm businesses.
3. There are marketing strategies that can increase business value.

From the results of the market aspect analysis above, it can be concluded that the "Susu Ubi Sayang" business is feasible to implement.

##### Feasibility Analysis of Technical Aspects

The results of the analysis carried out on the technical aspects of the product "Susu Ubi Sayang" are as follows:

1. The yam milk management standards have been tested so as to support efficient product management.
2. Business capacity has met the target standard, so that the products produced can meet the needs and annual market targets that have been determined.
3. The facilities used in the management of yam milk are nationally standardized so as to maintain the quality of the products produced.

Based on the results of the analysis of the technical aspects that have been mentioned, it can be concluded that the effort of

"Susu Ubi Sayang" is feasible.

##### Legal Feasibility

Based on the results of the legal aspect analysis, "Susu Ubi Sayang" already has a Business Identification Number (NIB) and has a Halal certificate, it can be concluded that the "Susu Ubi Sayang" business is feasible.

##### Financial Feasibility Analysis

Based on the results of processing the financial aspect data, the feasibility results are based on:

1. Payback Period for this "Susu Ubi Sayang" business is 1 year 2 months 6 days.
2. Net present value is positive at Rp. 12,552,900
3. Profitability Index (PI) has a value of more than 1
4. The Internal Rate of Return (IRR) value is 10.47%. Where the value is greater than the interest rate ( $i$ ), which is 9%.

Based on the results of the financial aspect analysis above, it can be concluded that the "Susu Ubi Sayang" business is feasible.

#### 5. Conclusion

Based on the results of the feasibility of the four aspects of research and the calculation of sensitivity analysis that has been carried out, it is concluded that the "Susu Ubi Sayang" business is feasible to run.

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