Feasibility Analysis of Tofu Agroindustry Business (Case Study of Sederhana Tofu Factory in Bukit Peninjauan I Village, Sukaraja District, Seluma Regency, Bengkulu Province)

Sarina1* dan Ikhsan Hasibuan1

1Majoring Agrotechnology, Universitas Prof. Dr. Hazairin, SH Bengkulu
*E-mail : sarinadedi64@gmail.com

ABSTRACT

The Tofu Agroindustry of Sederhana is the biggest tofu factory in Bukit Peninjauan I village that produces daily to fulfill the market need of the two biggest traditional markets in Bengkulu City. This research aimed to know the financial feasibility of the tofu agroindustry of Sederhana in Bukit Peninjauan I Village, Sukaraja sub-district, Seluma District. The study had been done from May to July 2021. The data used were primary and secondary collected by monitoring the process of tofu making and interviewing the factory's owner as a respondent. The analysis data used were descriptive and quantitative analysis. The descriptive analysis was used to know the general profile of the object and the quantitative analysis was used to know the financial status of the factory including NPV, IRR, Net B/C, and Payback period (PP). Based on the financial analysis we found that the Sederhana tofu factory was feasible to run and developed due to some considerations including the NPCV was Rp. 1,361,902,000, the IRR was 27,87%, the Net B/C was 1,38, and the PP was 4,93 years. Thus, we concluded that the Sederhana tofu industry was financially feasible to run and develop.

Keywords : agroindustry, feasibility, financial, tofu

Disubmit : 20 November 2022, Diterima: 15 Juni 2023, Disetujui : 15 Agustus 2023;

INTRODUCTION

Tofu is one of rich protein foods that beloved by most of Indonesian people. This food is consumed daily since it has good texture and great taste. It has low calory, fat, and carbohydrate. For each 100 gram of tofu, it contains only 70 calory, 2 gram of carbohydrate and 4 gram of fat. Tofu is rich of some nutrients including protein, essensial amino acids, vitamin and mineral such as manganese, calcium, selenium, phosphorus, magnesium, iron, zinc, and copper (Nursyamsiyah, 2022).

According to Badan Pusat Statistik Nasional (2015), soybeans were mostly consumed by Indonesian people in form of tofu, tempeh, and soybean sauce. Thus, soybean is a very important crop seed for Indonesian people. Tofu, tempeh, and soybean sauce are usually cooked to become many kinds of healthy and delicious food (Aeni, 2022). In average, Indonesian people consumed 0.158 kg tofu and tempe each week (BPS, 2018) and increased by 0.304 kg per week in 2021 (Karnadi, 2021).

Tofu is the food of Indonesian people inherited from our ancestors’ long time ago and one hundred percent produced domestically. Unfortunately, almost 90% of the soybeans needed as raw material for tofu production are still imports from overseas countries. In 2021, Indonesia imported 2.49 million tons of soybeans with a value of US$ 1.48 billion. The national demand for soybeans in 2020 is around 2.6 million tons, while non-tidal production is only 0.3 million tons or only about 11.5% of the total national soybean demand (Subagio, 2022).
Scarce soybean raw materials had an impact on reducing tofu production by 10-20 percent and even up to 50 percent (decreased production), depending on the regency and city. On average, it was between 10 and 20 percent. In addition to the main raw material problem, producer also had problem with the high cost of other supporting material that is cooking oil. The cooking oil price program of Rp 14,000 per liter launched by the government had not been able to be enjoyed by UMKM’s tofu and tempeh producers (Lestari, 2022).

Bukit Peninjauan 1 Village is one of the villages in the Sukaraja sub-district, Seluma Regency with area of 327 ha (BPS, 2019). Apart from farming, some of the people’s main and secondary livelihoods are making tofu and tempeh, both in the household scale industry and the tofu industry that uses machines. The Sederhana Tofu Factory is the largest tofu factory in Bukit Peninjauan 1 village which produces every day to meet the market needs in two large traditional markets in Bengkulu city. Based on our previous research, the Sederhana Tofu factory used 400 kg soybean per day as raw material and had an income for about Rp. 1,218,943.18 and the R/C ratio was 1.23 (Sarina & Hasibuan, 2021).

Rare and expensive of raw materials and the Covid-19 pandemic season have greatly affected the production of the Sederhana Tofu factory, thus this big obstacle must be managed seriously. The sederhana tofu factory continues its production to meet the consumers’ needs maintains labors and improves the welfare of employees and owners by making profits. The financial feasibility analysis plays a very important role in improving the Sederhana Tofu factory business, especially after utilizing machine tools bought from a bank loan in 2020. The purpose of this study is to analyze the financial feasibility of the Sederhana Tofu agro-industry in Bukit Peninjauan I Village, Sukaraja District, Seluma Regency

RESEARCH METHODOLOGY
The research had been done in the Sederhana tofu agro-industry, Bukit Peninjauan Village I, Sukaraja District, Seluma Regency from May to July 2021. The choice of location was done purposively with the consideration that the Sederhana tofu factory was the largest tofu factory that had been established since 2000 and was growing every year. In 2020, semi-modern machine tools have been used in this factory. Data collection methods in this study included primary data and secondary data.

The primary data is done by observation and interviews. Observation is a way of collecting data by directly observing the situation in the factory. Observation is a way of collecting data by directly observing the situation or situation in the field, namely by looking directly at the process of making tofu in the Sedrehana tofu agro-industry. Interviews were conducted with the owner of the Simple Tofu agroindustry as the respondent, Mr. Nandang, using a list of questions that had been prepared beforehand. The type of interview used in this study was semi-structured where the interviewer had prepared topics and a list of questions before the interview activities were carried out. The interview guide that has been prepared can still be developed as the interview process progresses (Sarosa, 2017). The secondary data comes from related journals, books and other literatures. The research method used in this research is the case study by taking the case of the Sederhana Tofu factory in Bukit Peninjauan I Village, Sukaraja District, Seluma Regency.

Methods of Data Analysis. Data analysis methods in this study were descriptive and quantitative analysis. Descriptive analysis was used to find out an overview of the object of research, characteristics and non-financial aspects. Quantitative analysis was used to determine the company's financial condition such as NPV, IRR, Net B/C and Payback Period (PP) (Ibrahim, 2009). The quantitative analysis used in this financial feasibility was as follows:

1. Net Present Value (NPV). According to Husein Umar (2004) in (Tasik et al., 2020) to calculate the present value, it is necessary to determine the relevant interest rate. The formula used in calculating the NPV is as follows:
\[ NPV = \sum_{t=0}^{n} \frac{B_t - C_t}{(1 + i)^t} \]

Where:
- \( NPV \) = Net Present Value (Rp)
- \( B_t \) = Benefit at the year of \(-t\) (Rp)
- \( C_t \) = Cost at the year of \(-t\) (Rp)
- \( I \) = Discount rate (%)
- \( t \) = Age of project (year)

The criteria (Tasik et al., 2020; Zulkarnain & Ranchianowarganegara, 2020) is:
- \( NPV > 0 \) : Feasible
- \( NPV = 0 \) : neither get profit nor loss
- \( NPV < 0 \) : Not feasible.

2. **Internal rate of return (IRR)** To determine the value of the IRR, the value must be calculated from \( NPV_1 \) and \( NPV_2 \) values by trial and error. If the \( NPV_1 \) value shows a positive number then the second factor discount must be greater than SOCC, and vice versa if \( NPV_1 \) shows a negative number then the second factor discount must be below SOCC or factor discount. According to Ibrahim, IRR can be formulated as followed (Ibrahim, 2009):

\[ IRR = i_1 + \frac{NPV_1}{NPV_2 - NPV_1} (i_2 - i_1) \]

Where:
- \( IRR \) = Internal return rate (%)
- \( NPV_1 \) = Positive Net Present Value (Rp)
- \( NPV_2 \) = Negative Net Present Value (Rp)
- \( i_1 \) = Discount rate resulting positive NPV (%)
- \( i_2 \) = Discount rate resulting negative NPV (%)

Assessment of financial feasibility based on IRR (Tasik et al., 2020; Zulkarnain & Ranchianowarganegara, 2020) are:
- IRR > interest rate : feasible
- IRR < interest rate : not feasible

3. **Net Benefit-Cost Ratio (Net B/C)**. Net B/C is the ratio between the gross benefit that has been discounted and the overall cost that has been discounted. Systematically the formula for assessing financial feasibility in a Net B/C Ratio is as follows:

\[ \text{Net BCR} = \sum \frac{PV (+)}{PV (-)} \]

Where:
- \( PV (+) \) = Net Benefit that had been positively discounted (Rp)
- \( PV (-) \) = Net Benefit that had been negatively discounted (Rp)

Conclusion (Tasik et al., 2020; Zulkarnain & Ranchianowarganegara, 2020):
- If Net B/C > 1 : Feasible
- If Net B/C = 1 : Break Even Point (BEP)
- If Net B/C < 1 : Not feasible
4. **Payback period (PP).** To determine the payback period if the cash flow per year is different, use the payback period formula as follows:

\[
\text{Payback period} = n + \frac{(a-b)}{(c-b)} \times 1 \text{ year}
\]

Where:
- \(n\) = The latest year where the amount of cash flow is still not able to cover the initial investment.
- \(a\) = the amount of initial investment.
- \(b\) = cumulative amount of cashflow year of \(-n\)
- \(c\) = cumulative sum of cash flows in years of \(n-1\)

Notes:
- If the retrieval period is shorter: feasible
- If the retrieval period is longer: not feasible

**RESULTS AND DISCUSSIONS**

Bukit Peninjauan I Village is located in Sukaraja District, Seluma Regency, Bengkulu Province. Bukit Peninjauan I Village has an area of 327 ha. Bukit Peninjauan I Village has a population of 1,854 people consisting of 944 men and 876 women from 562 families. Most of the population of Bukit Peninjauan I Village are farmers, that were 208 families. The socio-economic potential of the residents of Bukit Peninjauan I Village, most of whom work in the agricultural sector, are supported by the availability of existing public facilities and infrastructure. The rest make a living as breeders, tofu and tempeh producers, and kerupuk producers, traders and farm labourers.

The Sederhana Tofu Factory, owned by Mr. Nandang, is the largest tofu agro-industry with the name of Sederhana Tofu Factory in Bukit Peninjauan I Village, Sukaraja District, Seluma Regency. Mr Nandang's business experience in this field has reached 22 years, namely since 2000. Business experience was very useful for respondent to increase his knowledge and skills from providing production facilities to marketing products. Respondent have carried out a tofu-making business as their main source of income with the aim of increasing his standard of living or family economy. Initially the Sederhana tofu factory used its own capital and has experienced ups and downs, but since 2020 it has developed its business by gradually using machine tools through the assistance of capital loans from KUR BRI. Tofu production is carried out every day without any holidays to meet consumer needs, with 11 employees. Marketing was carried out at the Panorama and Pasar Minggu market as a distributor and already had 34 retail customers. Tofu was sold in the form of wet tofu or white tofu and fried tofu. Apart from selling tofu, the side income was by selling okara which produced approximately 700 kg each day, they were sold a price of IDR 200,000.

The process of making tofu starts from 1). Selection of raw materials for soybeans, to get qualified tofu requires qualified soybeans, not all of the soybeans sold are in good quality. 2). Soaking, soy raw materials are soaked for 1-2 hours. This soaking aims to soften the soybeans to facilitate the grinding process, then do the filtering 3). Milling, the next process is grinding soybeans into soybean porridge using a machine and water as auxiliary materials. This grinding aims to reduce the size of soybean particles to facilitate the protein extraction process 4). Boiling, the soybeans that have turned into soy milk are then boiled for approximately 30 minutes by using hot steam 4). Filtering, cooked soy milk is then filtered to get soy milk extract. Filtering usually uses calico or chiffon cloth which is stretched over the tank. 5). Acidifying, acidifying or coagulation is the next process after the cooked soybean juice has been filtered. The labourers of tofu usually use “bibit” as acidifying ingredients. Bibit is the sour material left over from the previous day's clumping. At the time of acidification or clumping, the water and starch will separate and the water will be removed. 6). Forming and Cutting, coagulated soymilk through an acidification process is then formed...
and cut according to the size desired by the consumers. Some of the cut tofu is soaked in water and some is fried.

**Financial Feasibility Analysis.** The financial feasibility analysis for this Sederhana Tofu Factory had began in 2020, which was the first year for this factory to use semi-modern equipment bought by using own capital and KUR BRI loan. The own capital was Rp. 100,000,000, - and a loan from BRI KUR was Rp. 50,000,000,- with an interest rate of 6% and a 5 year return period for the purchase of boiler equipment, grinding machines, etc. Credit Installments from the loan of amount Rp. 50,000,000, - was R in the amount of Rp. 13,157,894.73, - / year. The KUR return schedule in five years can be seen in table 1.

<table>
<thead>
<tr>
<th>Year</th>
<th>Instalment/year (Rp)</th>
<th>interest 6%(Rp)</th>
<th>Loan (Rp)</th>
<th>Amount of PPP (Rp)</th>
<th>Rest of loan (Rp)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>50,000,000</td>
</tr>
<tr>
<td>3</td>
<td>13.157.894,73</td>
<td>1.744.484,33</td>
<td>11.413.410,40</td>
<td>31.886.820,80</td>
<td>18.916.884,13</td>
</tr>
<tr>
<td>4</td>
<td>13.157.894,73</td>
<td>1.059.679,70</td>
<td>12.098.215,03</td>
<td>43.985.035,83</td>
<td>6.818.629,10</td>
</tr>
<tr>
<td>5</td>
<td>13.157.894,73</td>
<td>409,11</td>
<td>12.748.776,98</td>
<td>50,000,003,00</td>
<td>0,00</td>
</tr>
</tbody>
</table>

**Primary data analyzed, 2021**

Feasibility analysis by setting 2020 as the initial year, so that the costs used were the costs that apply in that year. All costs incurred were divided into two parts, namely fixed and variable costs which can be seen in Table 2.

Table 2. Total Cost Production of Sederhana Tofu Factory in Desa Bukit Peninjauan I Sukaraja District Seluma regency in 2020

<table>
<thead>
<tr>
<th>No</th>
<th>Type of cost</th>
<th>amount (Rp)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Fixed cost</td>
<td>19,580,457,60</td>
</tr>
<tr>
<td>2.</td>
<td>Variable cost</td>
<td>1,923,599,997,60</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>1,943,180,455,20</td>
</tr>
</tbody>
</table>

**Primary data analyzed, 2021**

The raw materials used for 144 tons of soybeans were 57,600 pieces of tofu. Tofu were sold in the form of raw tofu and fried tofu, 28,800 pieces raw tofu were sold Rp. 35,000/piece and 28,800 pieces of fried tofu sold at Rp. 45,000/piece. One piece of tofu is equivalent to 8 kg of cut tofu (one piece of tofu when cut into pieces produces 144 cuts of tofu). This means that tofu production was 230,400 kg of raw tofu and 230,400 kg of fried tofu. Price of raw tofu was Rp. 4,375/kg and the price of fried tofu was Rp. 5,625 / kg. There was also a by-product from the tofu factory, namely okara or tofu waste which produced 1,800 sacks/year which were sold Rp. 20,000/sack. The okaras were sold to farmer for making animal feed, organic fertilizer, and to producers of tempeh bongkrek.

The total revenue from the Sederhana Tofu Factory in Bukit Peninjauan I Village, Sukataja District, Seluma Regency in 2020 can be seen in table 3 below.:
Table 3. Income of Sederhana Tofu Factor in Bukit Peninjauan I Village, Sukataja District, Seluma Regency in 2020

<table>
<thead>
<tr>
<th>No</th>
<th>Description</th>
<th>Amount (Rp)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Raw tofu (Rp/kg)</td>
<td>1,008,000,000</td>
</tr>
<tr>
<td>2.</td>
<td>Fried tofu (Rp/kg)</td>
<td>1,296,000,000</td>
</tr>
<tr>
<td>3.</td>
<td>Dregs tofu</td>
<td>36,000,000</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>2,340,000,000</td>
</tr>
</tbody>
</table>

Prime data analyzed, 2021

From table 3 above it can be seen that the total revenue for the Sederhana Tofu agroindustry was Rp. 2,340,000,000/year gotten from selling wet tofu, fried tofu and dregs tofu as a by-product. This is in line with the results of research conducted by Saleh, et al (2022) which stated that the average income earned by tofu entrepreneurs for one month was an average of IDR 11,186,980 with an average total cost of IDR 62,523.020 and the average income earned is IDR 73,710,000. The feasibility of tofu agro-industry is 1.18. This shows that every Rp. 1.00 costs incurred will provide revenue of Rp. 1.18. Because RCR > 1, it can be concluded that this tofu business is feasible to continue so that many tofu entrepreneurs still survive and make this business their main job. The total business income of the Sederhana Tofu Factory in Bukit Peninjauan I Village, Sukataja District, Seluma Regency in 2020 can be seen in table 4 below:

Table 4. Income of Sederhana Tofu Factory in Bukit Peninjauan Village I, Sukaraja District, Seluma Regency in 2020

<table>
<thead>
<tr>
<th>No</th>
<th>Description</th>
<th>Amount (Rp)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Revenue</td>
<td>2,340,000,000.00</td>
</tr>
<tr>
<td>2.</td>
<td>Total cost</td>
<td>1,943,180.455.20</td>
</tr>
<tr>
<td></td>
<td>Total Income</td>
<td>396,819.544.80</td>
</tr>
</tbody>
</table>

Primary data analyzed, 2021

From table 4 above it can be seen that the average income of Sederhana tofu agroindustry was Rp. 396,819,544.80/year. The income above was sometimes unstable depended on the market price of soybean. Total income in the year above is in accordance with research Pangestu (2015) entitled Analysis of Financial Performance of "Wenwin" Tofu & Tempe Business in Sea Village, Pineleng District, Minahasa Regency in 2013 it was obtained Rp. 390,611,348.33 and in 2014 it was Rp. 520,322,848.33. If the price of raw materials increases, revenue will decrease because production costs, namely variable costs, increase. If the selling price of tofu is increased, the consumption of tofu will decrease and the ordering of tofu will also decrease. Research showed that an increase in soybean prices was a more sensitive variable compared to a decrease in the amount of tofu production. This is in line with research by Rafi, et al (2019) that changes in the price of raw materials (soybeans) and labor wages as well as sales values can affect the size of profits. This is in line with research by Hadiyanti (2020) decreasing sales values are more sensitive or sensitive than increases in raw material prices and increases in labor wages, because the decline in sales value has a greater effect than the increase in raw material prices and the increase in labor wages this is also in line with the results of the research.

A business feasibility analysis is carried out within the next five years from 2020-2024 and can then re-plan in the future. Financial analysis was carried out with the aim of determining an investment plan through calculating expected costs and benefits by comparing expenses and income through calculation assumptions (Hidayati et al., 2020). Calculation of business feasibility was done through investment criteria, including: Net Present Value (NPV), Internal Rate of Return (IRR), Net Benefit Ratio (Net B/C), Payback Period (PP). The interest rate applied to the calculation results of the investment feasibility analysis according
to the commercial interest rate for micro-scale loans of 16.75% (OJK, 2020). Preparation for calculating the Net Present Value of Sederhana Tofu business can be seen in table 5 below.

Table 5. Calculation of the Net Present Value of Sederhana Tofu Business, Bukit Peninjauan Village I, Sukaraja District, Seluma Regency (in thousand rupiahs)

<table>
<thead>
<tr>
<th>Uraian</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Penerimaan</td>
<td>-</td>
<td>2,340,000</td>
<td>2,340,000</td>
<td>2,437,812</td>
<td>2,539,678</td>
<td>2,645,837</td>
</tr>
<tr>
<td>a. Hasil Usaha</td>
<td>-</td>
<td>2,340,000</td>
<td>2,340,000</td>
<td>2,437,812</td>
<td>2,539,678</td>
<td>2,645,837</td>
</tr>
<tr>
<td>b. Salvage Value</td>
<td>-</td>
<td>1,943,180</td>
<td>2,024,404</td>
<td>2,109,024</td>
<td>2,197,181</td>
<td></td>
</tr>
<tr>
<td>Gross Benefit</td>
<td>100,000</td>
<td>59,522</td>
<td>57,543</td>
<td>60,037</td>
<td>62,624</td>
<td>65,385</td>
</tr>
<tr>
<td>1. Investasi awal</td>
<td>-</td>
<td>318,171</td>
<td>290,177</td>
<td>285,643</td>
<td>281,058</td>
<td>276,853</td>
</tr>
<tr>
<td>2. Opening cost Kredit Bank</td>
<td>100,000</td>
<td>10,157</td>
<td>10,767</td>
<td>11,413</td>
<td>12,098</td>
<td>12,748</td>
</tr>
<tr>
<td>Total Cost</td>
<td>3,000</td>
<td>1,956,338</td>
<td>2,037,561</td>
<td>2,122,181</td>
<td>2,209,930</td>
<td></td>
</tr>
<tr>
<td>4. Benefit</td>
<td>-1,000</td>
<td>396,819</td>
<td>383,622</td>
<td>400,251</td>
<td>417,496</td>
<td>435,907</td>
</tr>
<tr>
<td>5. Pajak 15%</td>
<td>-</td>
<td>337,296</td>
<td>326,079</td>
<td>340,214</td>
<td>354,871</td>
<td>370,521</td>
</tr>
<tr>
<td>6. Net Benefit</td>
<td>1.000</td>
<td>0.943</td>
<td>0.8396</td>
<td>0.8396</td>
<td>0.7920</td>
<td>0.7472</td>
</tr>
<tr>
<td>7. DF 16.75%</td>
<td>-100,000</td>
<td>318,171</td>
<td>290,177</td>
<td>285,643</td>
<td>281,058</td>
<td>276,853</td>
</tr>
<tr>
<td>Present Value (PV)</td>
<td>1,361,902</td>
<td>0,8565</td>
<td>0,7336</td>
<td>0,6283</td>
<td>0,5382</td>
<td>0,4610</td>
</tr>
<tr>
<td>df 6%</td>
<td>-</td>
<td>27.87%</td>
<td>(Layak)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross B/C Ratio</td>
<td>1,38</td>
<td>4.93</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PP</td>
<td>-</td>
<td>27.87%</td>
<td>(Layak)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Primary data analyzed, 2021

Table 5 showed the cash flow of the Sederhana tofu agro-industry in Bukit Peninjauan I Village, Sukaraja District, Seluma Regency under normal circumstances. Cash flow consisted of cash inflows and cash outflows. The incoming cash flows were obtained from the sale of wet tofu, fried tofu and okara. The increase in output and selling prices due to the increase of inflation based on the average inflation rate for the next five years, which is 4.18% (Bank Indonesia, 2020). According to (Ayu Wulandari et al., 2021), determining the increase in work wages every 3 years with an inflation calculation of 4.18% in the years of 4 or 5.

**Net Present Value (NPV)** is the present value of the difference between benefits and costs at a certain discount using Social Opportunity of Capital (SOCC) as a Discount Factor (Pasaribu, 2012). Based on table 5 above, the results of the financial feasibility of the Sederhana Tofu agro-industry, Bukit Peninjauan I Village, Sukaraja District, Seluma Regency had an NPV of Rp. 1,361,902,000, during the project of 5 years. A positive NPV indicates that the net benefits received by the Sederhana Tofu factory business were profitable over a period of 5 years. In other words, because the NPV value obtained was positive (> 0), this project was feasible to be run or operated. This is supported by Purnama, et al (2021) that this criterion is used to determine the value of an investment through consideration of changes in currency values or inflation. A business can get a feasible predicate if (NPV> 0) or has a positive value.

**Internal Rate of Return (IRR)** Project planning is feasible if it has an Internal Rate of Return (IRR) value greater than Social Opportunity Of Capital (SOCC), if the planned project/business has the same IRR as SOCC, then it is feasible and if project planning has an IRR value below SOCC then the project/business is not feasible (Ibrahim, 2009). Based on the results of the IRR calculation on the Sederhana Tofu Factory,
the IRR results were obtained at 27.87% which was greater than the bank interest rate of 16.75%, meaning that the maximum capacity level that can be paid by producers due to the use of production factors was 27.87%. This showed that the Sederhana Tofu Factory was categorized as feasible to be run. The greater the IRR, the more feasible it will be. This is in line with research Nurhayati, et al (2012) entitled Feasibility and Strategy for the Development of Tofu Small Industry Enterprises in Kuningan Regency, West Java, with an IRR value of 38.72%, which is higher than the prevailing interest rate, thus indicating the development of a tofu business is feasible to develop because it is profitable. Furthermore Fitricia (2021) in her research entitled Analysis of the Financial Feasibility of Tofu Businesses in Purworejo Village, Kotagajah District, Central Lampung Regency, shows that an IRR of 55% > 1 means it is very feasible to develop.

Net Benefit Cost-Ratio (Net B/C) is a comparison between the gross benefit and the overall cost that has been compounded. The Net Benefit-Cost Ratio is obtained from a comparison of the total positive present value with the total negative present value (Ibrahim, 2009). From the calculations made in the Sederhana Tofu Factory business was 1.38. It meant that for every Rp. 1 spent to run a business will generate a net benefit of Rp. 1.38,-. This also showed that the resulting Net B/C value was more than 1, so this project was feasible to be run. According to Fitricia (2021) Net B/C > 1 is worth developing. The results of Sartikasari, et al research (2021) entitled Analysis of the Feasibility of the "Tofu Light" Agro-industry Business in Lintungpaku Hamlet, Karangpawitan Village, Kawali District, Ciamis Regency, shows that the Net B/C Value is 6.38, this means that every 1.00 capital invested in agroindustry tofu will benefit by 6.38. Meanwhile, Nurhayati et al (2012) based on the analysis of the calculation of Net B/C obtained a value of 3.10 (greater than 1), then the development of tofu business is feasible to develop. The results of Meon et al research (2023) entitled The Feasibility of Tofu Business at Ud. Tofu Bali Mandiri, West Denpasar District, Denpasar City. . Net B/C > 1, which is 1.71, is worth continuing.

Payback Period (PP) is a certain period of time which shows the cumulative flow of income equal to the amount of investment in the form of present value. The faster the return on investment costs of a business, the better the business is because the better the turnover of capital (Ibrahim, 2009). The results obtained from PP calculations in the Sederhana Tofu Factory business showed that the period needed to return business capital was 4.93 years (4 years 11 months), in this case the business is very feasible to be run because the PP period was lower than the number of year stated in the project planning which was 5 years.

CONCLUSIONS

Based on the results of the feasibility analysis carried out on the Sederhana Tofu Factory, it is feasible to be run and developed. This can be seen from the results of the calculation of several financial feasibility criteria, namely the first NPV is Rp. 1,361,902,000, - IRR is 27.87%, and Net B/C is 1.38 and PP is 4.93 years, which means that the payback period is lower than the predetermined project age. These results indicate that the Sederhana Tofu Factory business is feasible to be run and developed.

REFERENCES


Jurnal Penelitian Pertanian Terapan


Pasaribu, A. M. (2012). *Perencanaan dan Evaluasi Proyek Agribisnis (Konsep dan Aplikasi)*. lily Publisher.


