

“Peach Gum Dessert” Investment Feasibility Analysis

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Abstract

This study aimed to determine the feasibility of Investment in Peach Gum dessert for five years, 2022-2026. The sample of this study is determined based on data and information from the company's financial statements, in the form of a Balance Sheet, Cash Flow Statement, and Profit and Loss Statements for the 2022-2026 period. The data analysis technique uses investment feasibility methods, namely Payback Period (PP), Net Present Value (NPV), Internal Rate of Return (IRR), and Profitability Index (PI). The results showed that the investment in Peach Gum dessert is feasible because, based on the Income Statement Performance for the next five years, it generates an increasing profit every year. Moreover, based on Cash Flow Performance for the next five years, the final cash flow is always positive and increases yearly. While the results of the calculation using the investment feasibility assessment resulted in an NPV of Rp. 708.689.398, Internal Rate of Return (IRR) of 40%, where this value is greater than the expected rate of return of 7,68%, Profitability Index (PI) of 2,3158349625 with a total payback period of 2 years six months 15 days, so it can be concluded that the investment is feasible.

Keywords

investment feasibility; balance sheets; profit and loss statements; cash flow statements; payback period; NPV; IRR; PI



I. Introduction

The beverage business is a business that is in great demand by entrepreneurs who want to open a new business because this field is a field that can promise big profits if it can be adequately managed by the business owner. One type of "dessert" drink or dessert menu is almost a favorite for some people. Usually, this dessert menu is packaged fresher, such as various ice drinks, sweet cakes, to ice cream.

Peach gum or tao jiao is a food ingredient that makes this dessert increasingly popular because of its content. Moreover, for women, this dessert is said to have health benefits for the skin. However, what exactly is peach gum dessert? Peach gum dessert is made from the sap of the wild peach tree in China. It is solid when harvested and emits a yellow glow when exposed to sunlight. Peach gum is also shaped like a yellowish crystal," During the pandemic, peach gum was sought after because it is believed to be good for health and has a myriad of advantages and benefits for the body. For health. "Peach gum is believed to be not only good for the skin but also for the immune system. Body. (Kompas, July 13, 2020). The outbreak of this virus has an impact of a nation and Globally (Ningrum et al, 2020). The presence of Covid-19 as a pandemic certainly has an economic, social and psychological impact on society (Saleh and Mujahiddin, 2020). Covid 19 pandemic caused all efforts not to be as maximal as expected (Sihombing and Nasib, 2020).

The trend of healthy living in Indonesia has become a business opportunity for fresh drinks such as peach gum dessert, which is simple, easy, fast, fresh, rich in nutrition, and

relatively affordable. In addition, the tropical climate condition of Indonesia is very supportive of the thirst-quenching beverage business. When the weather is hot, where most people prefer drinks that are more practical, efficient, and fresh. The entry of Western culture into Indonesia is very influential on people's lifestyles in general. This is evidenced by the rapidly growing beverage business, especially the beverage business with the Fresh Drink concept.

The concept of a food truck selling peach gum dessert was chosen as a more modern concept. The concept of a food truck is selling food by using a car as a means of selling. The food truck uses a car the size of a family car that is modified so that the inside of the car can be used as a place to mix drinks ordered by consumers.

The target market for Peach Gum Dessert is all people, from teenagers to adults. The selling price of Peach Gum Dessert products starts from Rp. 35,000 to Rp. 45,000. This price is determined by considering competitors' prices.

II. Review of Literature

2.1 Business Feasibility Study

A business Feasibility Study, according to Kasmir and Jakfar (2012:7), is an activity that will be carried out in order to determine whether the business is feasible or not. Husein Umar (2005: 8) further defines a Business Feasibility Study as research on a business plan that not only analyzes whether or not a business is feasible or not but also when it is operated routinely in order to achieve maximum profit for an indefinite time.

A project or business feasibility study is research that involves various aspects, from legal, social, economic, and cultural aspects, market and marketing aspects, and technical and technological aspects to management and financial aspects, all of which are used as a basis for feasibility study research and the results—used to make a decision whether a project or business can be done or postponed and even not executed.

2.2 Purpose of Conducting Feasibility Study

There are five objectives of conducting a feasibility study, according to Kasmir and Jakfar (2012: 13), namely:

a. Avoiding the Risk of Loss.

To overcome the risk of loss in the future, there is a kind of certainty condition. This condition is something that can be predicted will occur or will happen by itself without being predictable. In this case, the function of the feasibility study is to minimize the risks that we do not want, both the risks that we can control and those that cannot be controlled.

b. Easy Planning

If we can predict what will happen in the future, it will be easier to plan what things need to be planned.

c. Ease of Execution of Work

The various plans that have been prepared will significantly facilitate the implementation of the business. The implementers who work on the business already have guidelines that must be followed. The guidelines have been arranged systematically so that the efforts carried out can be right on target and follow the plans that have been prepared.

d. Easy Monitoring

With the implementation of a business by the plan that has been prepared, it will make it easier for us to supervise the running of the business. This supervision needs to be done so as not to deviate from the plan that has been prepared.

e. Easy Control

If the implementation of work supervision has been carried out, then if a deviation occurs, it will be easily detected so that control over the deviation can be carried out. The purpose of control is to control the implementation so that it does not deviate from the actual track so that, in the end, the company's goals will be achieved.

2.3 Business Feasibility Study Aspects

When preparing for a feasibility study, there are many aspects to research. These aspects are flexible so that they can be added or reduced according to the company's needs. Several essential aspects will be investigated when the feasibility study analysis is carried out, according to Juliawanti (2021), including:

1. Legal Aspects or Legality

One aspect that must be examined when a feasibility study is carried out is the legal aspect or legality. This concerns all matters relating to legal provisions in establishing a company. In the legal aspect, the points analyzed are the location permit, company registration certificate, NPWP, SIUP, and the deed of establishment of the company from a notary.

2. Economic and Cultural Aspects

On the economic and cultural aspects, the feasibility study analyzes the impact caused by the company on the surrounding conditions. From a cultural perspective, the feasibility study will analyze how the company influences the customs in the surrounding area. While from the economic side, the analysis carried out is how the company impacts the level of per capita income in the area where the company is founded.

3. Market and Marketing Aspects

Markets and marketing are essential aspects that are examined in a feasibility study. The analysis carried out on this aspect will answer the question of whether the products produced by the company have market opportunities. To answer this question, several things must be considered, namely market potential, number of consumers, people's purchasing power, segmentation, competitive situation in the industry, and others.

4. Management Aspect

The feasibility study also includes management aspects as an essential aspect that must be analyzed. This aspect is closely related to the company's operations, both development, and development. Of all the aspects analyzed, the management aspect has a vast scope. This is because all things related to the company's operations fall into the category of management aspects, from resource management to company finances.

5. Financial Aspect

For some businesses, capital is the main thing that must be owned before building a business. Therefore, the financial aspect is the thing that determines whether your business runs smoothly or not in the future. In the financial aspect, the investment feasibility method is used. Investasi

Investment is a commitment to several funds or other resources made at this time, intending to obtain several benefits in the future. (Eduardus Tandelilin, 2010:7)

2.4 Investment Feasibility Analysis

In order for an investment to generate the expected rate of return in the future, investors must first conduct an investment feasibility analysis. Investment feasibility analysis can be understood as an action taken to determine the prospects of an investment project that underlies the decision to accept or reject the investment. Before making an investment decision, it is essential to conduct a feasibility analysis to avoid investing in unprofitable projects or activities.

III. Research Method

3.1 Research Object

In this study, the research object is the financial plan of Peach Gum Dessert, whose business location is on Jl. Pondok Cibubur, District: Cimanggis, Depok

3.2 Research purposes

This study aims to determine the feasibility of investing in the Peach Gum Dessert business for five years, 2022-2026.

3.3 Research Sample

The research sample was determined based on data and information from the company's financial statements, in the form of a Balance Sheet, Cash Flow Statement, and Income Statement for 2022 -2026.

3.4 Data analysis technique

The data analysis technique used in the financial aspect is the calculation using the investment feasibility method, namely the Payback Period (PP), Net Present Value (NPV), Internal Rate of Return (IRR), and Profitability Index (PI).

Payback Period (Payback Period) is a method used to calculate the length of the period required to return the money that has been invested from the annual cash inflows (Proceeds) generated by the investment project. Net Present Value (NPV) is a method that is carried out by comparing the present value of net cash inflows (proceeds) with the present value of the cost of spending an investment (outlays). Internal Rate of Return (IRR) is a method to calculate the interest rate that can equate the present value of all cash inflows with cash flows out of an investment project. Profitability Index (PI) or often called the Desirability Index (DI), is a method that calculates the comparison between the present value of net cash receipts in the future (proceeds) and the present value of investments (outlays) (Suliyanto, 2010).

IV. Result and Discussion

4.1 Financial Projections

Financial Projection is a financial description of Peach Gum Dessert, which consists of profit and loss projections, cash flow statement projections, and balance sheet projections. Financial statements are basically a source of information for investors as one of the basic considerations in making capital market investment decisions and also as a means of management responsibility for the resources entrusted to them (Prayoga and Afrizal 2021). Financial performance is a measuring instrument to know the process of implementing the company's financial resources. It sees how much management of the company succeeds, and provides benefits to the community. Sharia banking is contained in

the Law of the Republic of Indonesia No.21 of 2008 article 5, in which the Financial Services Authority is assigned to supervise and supervise banks. (Ichsan, R. et al. 2021)

a. Projected Profit – Loss

The profit and loss projection are a report that aims to find out the amount of net income received by Peach Gum Dessert every year, and the profit and loss projections made for the next five years, namely 2022 - 2026. The profit and loss projection are made by calculating all costs incurred in operating Peach Gum Dessert and all depreciation or depreciation charged on Peach Gum Dessert equipment minus the income from the Peach Gum Dessert company, which is obtained from the sale of products each year. In Table 1, the following is the Profit and Loss Projection for the next five years, namely 2022-2026.

Table 1. Peach Gum Dessert Profit and Loss Projection 2022 – 2026 (in rupiah)

Information	2022	2023	2024	2025	2026
Arus Kas Masuk					
Penerimaan Tunai	769.980.000	979.502.400	1.127.516.096	1.353.889.984	1.567.203.840
Arus Kas Keluar					
Biaya Tetap:					
Biaya Administrasi dan Umum	30.750.000	32.551.950	34.459.494	36.478.821	38.616.480
Biaya Gaji	58.500.000	59.670.000	60.863.400	62.080.668	63.322.281
Biaya Pemeliharaan	5.000.000	5.293.000	5.603.170	5.931.516	6.279.102
Biaya Pemasaran	6.350.000	3.652.170	3.866.187	4.092.746	4.332.581
Biaya Air	3.500.000	3.705.100	3.922.219	4.152.061	4.395.372
Total Biaya Tetap	104.100.000	104.872.220	108.714.470	112.735.811	116.945.816
Biaya Variabel:					
HPP	538.656.602	563.616.936	634.801.554	663.287.243	693.210.521
Biaya Perlengkapan	58.488.000	61.915.397	65.543.639	69.384.496	73.450.428
Total Biaya Variabel	597.144.602	625.532.333	700.345.193	732.671.739	766.660.949
Total Arus Kas Keluar	701.244.602	730.404.553	809.059.663	845.407.550	883.606.764
Pembayaran Pajak 1%	7.699.800	9.795.024	11.275.161	13.538.900	15.672.038
Arus Kas Operasi	61.035.598	239.302.823	307.181.272	494.943.534	667.925.037
Saldo Kas Awal	4.000.000	65.035.598	304.338.421	611.519.693	1.106.463.227
Saldo Kas Akhir	65.035.598	304.338.421	611.519.693	1.106.463.227	1.774.388.264

Source: Data processed

b. Cash Flow Statement Projections

A projected cash flow statement is a financial report that records all cash outflow or cash flow activities in a company's operational activities every year. The following is a projected cash flow statement for Peach Gum Dessert for 2022 – 2026, which is attached to Table 2.

Table 2. Peach Gum Dessert Cash Flow Statement for 2022 – 2026 (in rupiah)

Information	2022	2023	2024	2025	2026
Arus Kas Masuk					
Penerimaan Tunai	769.980.000	979.502.400	1.127.516.096	1.353.889.984	1.567.203.840
Arus Kas Keluar					
Biaya Tetap:					
Biaya Administrasi dan Umum	30.750.000	32.551.950	34.459.494	36.478.821	38.616.480
Biaya Gaji	58.500.000	59.670.000	60.863.400	62.080.668	63.322.281
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Total Biaya Tetap	104.100.000	104.872.220	108.714.470	112.735.811	116.945.816
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Saldo Kas Akhir	65.035.598	304.338.421	611.519.693	1.106.463.227	1.774.388.264

c. Balance Sheet

The projected balance sheet is a report of the assets, liabilities, and equity owned by the Peach Gum Dessert company. In the projected balance sheet, the total assets and liabilities must be the same Table 3 attached the Peach Gum Dessert balance projection for five years.

Table 3. Peach Gum Dessert Projected Balance Sheet for 2022 – 2026 (in rupiah)

Information	2022	2023	2024	2025	2026
Aktiva					
Aktiva Lancar					
Kas	4.000.000	65.035.598	304.338.421	611.519.693	1.106.463.227
Persediaan	405.756.602	428.058.936	451.587.114	476.408.514	502.594.218
Total Aktiva Lancar	409.756.602	493.094.534	755.925.536	1.087.928.207	1.609.057.444
Aktiva Tetap					
Aktiva Tetap Berwujud					
Peralatan	41.035.900	41.035.900	41.035.900	41.035.900	41.035.900
Akumulasi Peny. Peralatan	(8.207.180)	(16.414.360)	(24.621.540)	(32.828.720)	(41.035.900)
Kendaraan	120.000.000	120.000.000	120.000.000	120.000.000	120.000.000
Akumulasi Peny. Kendaraan	(24.000.000)	(48.000.000)	(72.000.000)	(96.000.000)	(120.000.000)
Total Aktiva Tetap	128.828.720	96.621.540	64.414.360	32.207.180	-
TOTAL AKTIVA	538.585.322	589.716.074	820.339.896	1.120.135.387	1.609.057.444
PASSIVA					
Modal Usaha	538.585.322	538.585.322	538.585.322	538.585.322	538.585.322
Laba Ditahan	-	-	51.130.753	230.623.821	350.926.244
Laba Tahun Berjalan	-	51.130.753	230.623.821	350.926.244	719.545.878
TOTAL PASSIVA	538.585.322	589.716.074	820.339.896	1.120.135.387	1.609.057.444

4.2 Business Feasibility Analysis

An assessment of whether or not a business will be established can be determined by using the following indicators, namely Net Present Value (NPV), Profitability Index (PI), and Internal Rate of Return. Payback Period (PP) The following will describe the business feasibility analysis of Peach Gum Dessert:

a. Net Present Value Analysis

Net Present Value (NPV), according to Schweser (2013: 138), is a way to calculate the difference between the present value of net cash receipts in the future and investments made in the present if the business is run. Where to determine the present value of each cash flow in the future, it is necessary to determine in advance the interest rate that is considered relevant. This method is a method of discounting cash flows, so it is necessary to determine the discount rate in advance.

Formula:

$$NPV = \sum_{t=1}^n \frac{NCF_t}{(1+i)^n} - CF_0$$

Net Cash Flow (NCF) = Earning After Tax (EAT) – Depresiasi
 CF_0 = Initial investment
 i = Investment credit rate
 n = Project age

The decision criteria are as follows:

- a. If $NPV > 0$, the project is accepted for projecting
- b. If $NPV < 0$, the project is not feasible

The following is an analysis of the Present Net Value (NPV) of Peach Gum Dessert, which is attached to Table 4.

Table 4. Peach Gum Dessert Net Present Value (in rupiah)

Year	CIF	$(1/(1+i))^n$	PV of CIF
2022	61.035.598	0,91116	55.613.301
2023	239.302.823	0,83022	198.672.961
2024	307.181.272	0,75646	232.370.583
2025	494.943.534	0,68926	341.143.844
2026	667.925.037	0,62803	419.474.030
		Total PVof CIF	1.247.274.719
		Initial Investments	538.585.322
		NPV	708.689.398

From the NPV calculations in Table 4, it can be concluded that the NPV is positive with a value of Rp. 708,689,398, the difference from the total net cash flow PV, which is Rp. 1,247,274,719 and investment PV of Rp. 538,585,322 Therefore, based on the calculation of the Present Net Value, Peach Gum Dessert is said to be feasible to run.

b. Analysis of Internal Rate of Return

Internal Rate of Return (IRR) is a business feasibility analysis examining the efficiency level of an investment or business to be established. If a business has a rate of return that is greater than its discount factor, then the business is said to be feasible to run. To find the amount of IRR, it is necessary to use a trial-and-error system to find the negative NPV value compared with the actual NPV obtained. For that, there is a formula to calculate the amount of IRR as follows:

$$\text{Internal Rate of Return} = i_r + \frac{NPV_{i_r}}{NPV_{i_r} + NPV_{i_t}} \times (i_t - i_r)$$

Information:

i_r = Low-interest rate

i_t = High-interest rate

The decision criteria are as follows :

- If $IRR >$ cost of capital, the project is feasible
- If $IRR <$ capital cost, the project is not feasible to be realized

An investment is declared feasible if the IRR is greater than the loan interest and rejected if the IRR is less than the loan interest. The following is attached the Internal Rate of Return (IRR) of Peach Gum Dessert in Table 5

Table 5. Peach Gum Dessert Projected Internal Rate of Return in 2022 – 2026 (in rupiah)

Year	CIF	$(1/(1+i))^n$ DF 39%	PV of CIF	$(1/(1+i))^n$ DF 40%	PV of NIF
2022	61.035.598	0,91116	55.613.301	0,71429	43.596.856
2023	239.302.823	0,83022	198.672.961	0,51020	122.093.277
2024	307.181.272	0,75646	232.370.583	0,36443	111.946.528
2025	494.943.534	0,68926	341.143.844	0,26031	128.837.863
2026	667.925.037	0,62803	419.474.030	0,18593	124.190.262
		Total PVof CIF	1.247.274.719	Total PVof CIF	530.664.786
		Initial Investments	538.585.322	Investment	538.585.322
		NPV	708.689.398	NPV	(7.920.536)
		IRR =	40%		

Based on table 5, it can be seen from the calculation results that the IRR is 40% which is greater than the investment credit level (BCA bank), which is 7.68% (Kompas, June 2022), so from the IRR calculation, this business is declared feasible to run.

c. Payback Period (PP)

The payback period, according to Schweser (2013: 18), is the time needed to return the total investment that has been issued, so this method measures how quickly the investment that has been issued can be returned.

If the payback period of a proposed investment is shorter than the maximum payback period required by the company, the proposed investment can be accepted. On the other hand, if the payback period is longer than the maximum payback period, then the

investment proposal should be rejected. The following table 6 shows the calculation of the payback period for Peach Gum Dessert.

Table 6. Peach Gum Dessert Projected Payback Period 2022-2026 (in rupiah)

Tahun	Net Cash Flow	Arus Kumulatif
2022	61.035.598	538.585.322
2023	239.302.823	477.549.724
2024	307.181.272	170.368.452
2025	494.943.534	
2026	667.925.037	
2025	532.157.670	

Source: *data viola*

$$\begin{aligned} \text{Payback Period} &= 2 \text{ years} + \left(\frac{170.368.452}{307.181.272} \times 360 \text{ hari} \right) \\ &= 2,55 \text{ Years} \\ &= 2 \text{ Years } 6 \text{ Months } 15 \text{ days} \end{aligned}$$

From the above calculation, it is found that the payback period of Peach Gum Dessert is two years, six months 15 days, still smaller than five years, so this business is said to be feasible to be realized.

d. Profitability Index

Profitability index (PI), according to (2013: 20), is the present value of the total value of future net cash flows divided by the investment value that has been issued.

$$\text{Profitability Index} = \frac{\text{PV of NIF}}{\text{Initial Investment}}$$

The decision criteria are:

- If $PI > 1$, the project is feasible
- If $PI < 1$, the project is not feasible

Calculation:

$$\text{Profitability Index} = \frac{1.247.274.719}{538.585.322}$$

$$\text{Profitability Index} = 2,32$$

From the above calculation, the profitability index value is 2.3158349625. So that the value of $PI > 1$, this business is feasible to be realized.

V. Conclusion

Judging from the Income Statement Performance for the next five years, investment in Peach Gum Dessert is declared feasible because it generates an increasing profit every year. Judging from the Cash Flow Performance for the next five years, the final cash flow is always positive and increases yearly. While the results of the calculation using an investment feasibility assessment resulted in an NPV of Rp. 708,689,398, Internal Rate of

Return (IRR) of 40%, where this value is greater than the expected rate of return of 39%, Profitability Index (PI) of 2.3158349625, with a total payback period of 2 years six months 15 days, so we can conclude Peach Gum Dessert is a worthy investment.

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