

**BUSINESS FEASIBILITY STUDY
OF MACLOV MACARONI SHOP****Debora Yuliana ¹, Sonny ²**¹President University, debora.yuliana@student.president.ac.id²President University, sonny@president.ac.id

ABSTRACT

In Indonesia, crackers are processed snacks. Not only ordinary crackers; many variants of crackers can be found in Indonesia, from the types of crackers to be flavor of certain types. This has provided a trend in recent years where this type of macaroni cracker has increased the growth of the cracker snack business in Indonesia. Then it was marked by the emergence of innovations in the taste of macaroni crackers which were very diverse so that they could lure consumers from the millennial generation to Z generation to be interested in buying them to be able to accompany them in all conditions. Maclov is targeted to provide profits that increase each quarter by 5-15% for the next 5 years. This business uses IDR 720,000,000 capital with an NPV of IDR 127,104,772 and will get BEP for 4 years and 3 months

Keywords: *feasibility study, business plan, entrepreneurship, snack industry.*

1. Introduction

The development of growth in the micro-small industry sector in Indonesia is the highest in the snack sector compared to 10 other micro-small industrial sectors. In the micro-small sector in Indonesia, the snack sector in 2020 will reach 1.5 million who will establish it, wherewith the development of snack is based on many aspects, starting from the workforce, which was established with due regard to the capital needed. Businesses in the snack sector have increased yearly, so most Indonesians have established the most industries in the snack sector to become number 1 due to the emergence of various new snack variants. At the same time, snack in the chiki sector are most in demand, such as macaroni, basreng, potatoes, and cassava.

In the two segments, snack increase compared to heavy types of snack. The snack business in Indonesia has developed over time, starting from 2019 until it is predicted that in the coming year, Indonesia people will consume snacks to provide a sense of comfort, pamper themselves and encourage them during difficult times in carrying out activities where Indonesia people are more focused on spending various kinds of snacks by paying attention to starting from 3 aspects, namely aroma, taste, and texture.

According to Islandsuns research (2022), In 2021, each person in Indonesia can average consume as much as 4.6 kg of snacks. This figure has increased by 5% from 2020, with an average consumption of snacks per capita in Indonesia of 4.4 kg per person per year. Meanwhile, in 2022, this figure can be predicted to increase by 6.5% to 4.9 kg per capita per year.

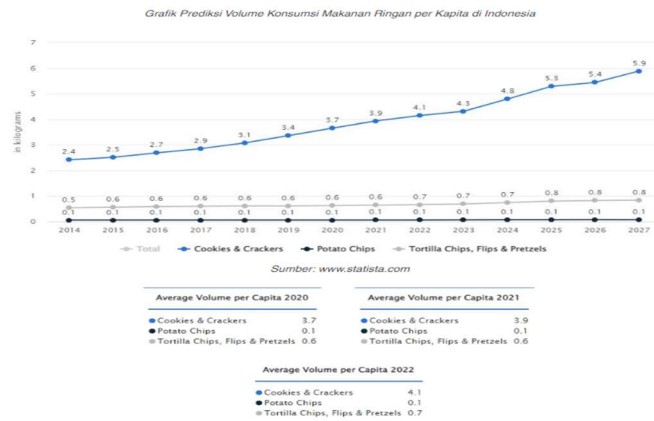


Figure 1. Graph of predictions for snack consumers in Indonesia

Source: statista.com

According to Islandsuns research (2022), consumers who like snacks in Indonesia are consumed the most, namely the millennial generation and Generation Z, because these generations tend to try new things, so new snack developments emerge yearly.

Grafik demografi konsumen makanan ringan di Indonesia tahun 2021

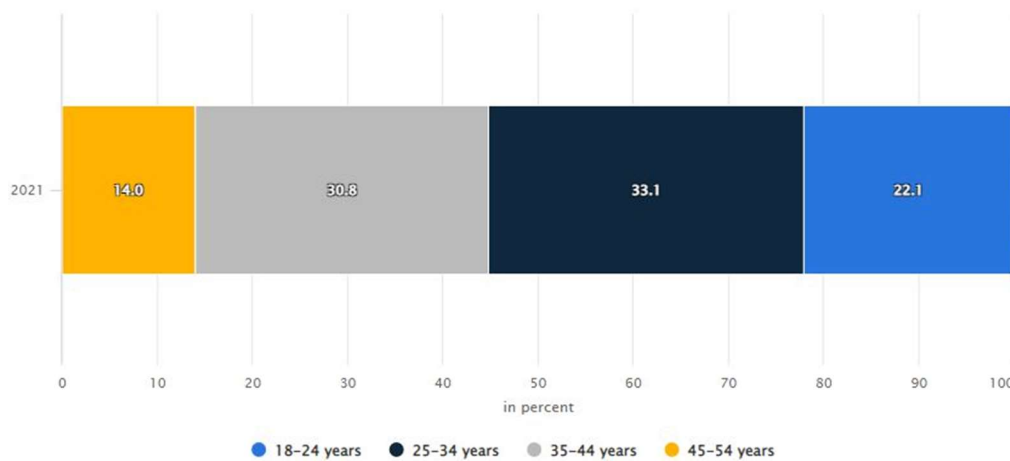


Figure 2. Demographic graph of snack consumers in Indonesia

Source: statista.com

Indonesia people have a habit of eating light meals rather than heavy meals in a short time, which is a mental and emotional need that can make it easier to carry anywhere and is practical. According to Islandsuns research in 2021, each person in Indonesia can average consume as much as 4.6 kg of snacks. This figure has increased by 5% from 2020, with an average consumption of snacks per capita in Indonesia of 4.4kg per person per year. Meanwhile, in 2022 this figure can be predicted to increase by 6.5% to 4.9 kg per capita per year. There are several types of business activities in the South Jakarta area, especially in the snack business. The business plan to be established is a salt & sweet macaroni business with the brand name Maclov. This is a personal business, and the purpose of creating this business is to introduce products to the public. This business has the concept of love for the people they care about with the theme of this Maclov product and can build a good and friendly community for everyone.

2. Research Method

To determine the feasibility of this plan from the perspective of snack and financial industry trends, a series of studies were conducted to generate and collect data, where for the target of data collection providing a Google form with a target of 30 college

students in the South Jakarta area With the age of 19 - 35 years, the data shows that many like snacks, starting from investment costs and cash flows. Then, using data processing to be able to determine the Net Present Value (NPV), Payback Period (PP), Return-On-Asset (ROA), and Return-On-Sales (ROS). Further research is carried out based on analyzing the five forces.

3. Results and Discussion

The results will be divided into two parts consisting of a primary analysis covering financial feasibility and a secondary analysis covering industry feasibility.

Industry Feasibility

Industry feasibility was analyzed using Porter's Five Forces.

Porter's Five Forces

Porter's Five Forces is a method that analyses and identifies strengths and weaknesses of the industry to determine the business strategy to be used.

a. Competitive Competition among Existing Competitors

Macaroni crackers are quite well known in everyday life by people in Indonesia. With the rapid development of technology and information, so many innovations in the field of snack so that people keep abreast of trends that are happening. In addition, the snack business is very competitive, where a macaroni cracker business like Maclov is competing to make the business dominant in the market, from creative innovation to creating new macaroni cracker concepts with various flavours.

Intensity: High

b. Bargaining Power of Suppliers

In Indonesia has the largest cracker producer, especially in the Cirebon and Sidoarjo areas. Therefore, the bargaining power of suppliers is high because it can be delivered according to the amount needed in Maclov's business

Intensity: High

c. More Bargaining Power

The cracker industry will continue to develop to provide an abundance of basic raw materials, followed by development trends. Indonesia's largest cracker producer exports to several countries, including Thailand, South Korea, The Netherlands, Malaysia, and England. This can reflect that many people like crackers, so Maclov's business strives to provide various taste and concept innovations that can attract more attention to compete with competitors who sell similar types.

Intensity: High

d. Threat of Subsidies

Kerupuk is a very common snack in Indonesia, many types of snack variants in the form of crackers are sold in many places. So that it has an alternative to cracker snacks in frozen form, making it easier for consumers to enjoy them. Thus, the threat of substitution of cracker snack products is very high because many substitute roles exist for the products offered.

Intensity: High

e. Threat of New Entrants

With so many business developments in the field of cracker snacks, there will be many similar businesses that have sprung up or will continue to grow rapidly. Coupled with technology and social media development, this business is fairly common because it is simple and flexible to absorb the modern and contemporary concepts that many people are looking for. So that it has convenience and many accesses that can be taken to build this business.

Intensity: High

Financial Feasibility:

1. The depreciation rate for assets is set at 10% per year.
2. Expenditure on promotion costs is adjusted to Maclov's business plan.
3. The salary for Maclov's employees includes incentives

4. Tax payments are determined following applicable laws, namely 0,5% of Net Income after deducting non-taxable income of 500 million

Table 1. Maclov Fund Sources and Reports

Sources		Amount
Owner Investment	IDR	720.000.000
Total	IDR	720.000.000

Cost		Amount
Marketing and Promotion	IDR	25.400.000
Inventory	IDR	39.280.000
Equipment	IDR	53.142.000
Furniture	IDR	9.300.000
Employee Salary	IDR	299.000.000
Building Rent	IDR	35.000.000
Cash (Working Capital)	IDR	258.878.000
Total	IDR	720.000.000

Source: ???????

Fund Sources and Reports are divided into two parts, namely sources and cost. For sources, investment for business owners is IDR. 720.000.000, and cost are divided into several types of expenditure, starting from marketing and promotion IDR 25.400.000, inventory of IDR 38.910.000, equipment of IDR 53.142.000, furniture IDR 9.300.000, employee salary consisting one CEO and three employees IDR 299.000.000, building rent IDR 259.248.000.

Table 2. Table of Maclov's Income Statement

	Year 1		Year 2		Year 3	
Gross Sale	IDR	718.639.000	IDR	826.434.850	IDR	950.400.078
COGS (30%)	IDR	215.591.700	IDR	247.930.455	IDR	285.120.023
Gross Profit	IDR	503.047.300	IDR	578.504.395	IDR	665.280.054
Expense						
Marketing and Promotion	IDR	25.400.000	IDR	26.670.000	IDR	28.003.500
Salaries	IDR	299.000.000	IDR	328.900.000	IDR	361.790.000
Electricity and Water	IDR	20.000.000	IDR	21.000.000	IDR	22.050.000
Internet	IDR	11.160.000	IDR	11.718.000	IDR	12.303.900
Building Rent	IDR	35.000.000	IDR	36.750.000	IDR	38.587.500
Total Expense	IDR	390.560.000	IDR	425.038.000	IDR	462.734.900
Net Income Before tax	IDR	112.487.300	IDR	153.466.395	IDR	202.545.154
Tax (0.5%)	IDR	562.437	IDR	767.332	IDR	1.012.726
Net Income	IDR	111.924.864	IDR	152.699.063	IDR	201.532.428
Monthly Net Income	IDR	9.327.072	IDR	12.724.922	IDR	16.794.369

		Year 4		Year 5	
Gross Sale	Rp	1.092.960.089,13	Rp	1.256.904.102,49	
COGS (30%)	Rp	327.888.026,74	Rp	377.071.230,75	
Gross Profit	Rp	765.072.062,39	Rp	879.832.871,75	
Expense					
Marketing and Promotion	Rp	29.403.675,00	Rp	30.873.858,75	
Salaries	Rp	397.969.000,00	Rp	437.765.900,00	
Electricity and Water	Rp	23.152.500,00	Rp	24.310.125,00	
Internet	Rp	12.919.095,00	Rp	13.565.049,75	
Building Rent	Rp	40.516.875,00	Rp	42.542.718,75	
Total Expense	Rp	503.961.145,00	Rp	549.057.652,25	
Net Income Before tax	Rp	261.110.917,39	Rp	330.775.219,50	
Tax (0.5%)	Rp	1.305.554,59	Rp	1.653.876,10	
Net Income	Rp	259.805.362,80	Rp	329.121.343,40	
Monthly Net Income	Rp	21.650.446,90	Rp	27.426.778,62	

Source: ??????

Five expenses are included in the financial statements that I made, including marketing and promotion, salaries, electricity and water, internet, and building rent. For the table of Income Statement I made for the five years where the calculations used formula:

Net Income before tax = Gross Profit – Total Expenses

Net Income = Net Income Before Tax – Tax (0,5%)

Monthly Net Income = Net Income : Number of months in one year (12)

Table 3. Maclov's Statement of Cash Flows

		Year 1		Year 2		Year 3	
Beginning Balance	IDR	720.000.000	IDR	765.205.676	IDR	913.414.575	
Sales Revenue	IDR	718.639.000	IDR	826.434.850	IDR	950.400.078	
Sales Disburments							
COGS (30%)	IDR	215.591.700	IDR	247.930.455	IDR	285.120.023	
Marketing Expenditures							
Marketing and Promotion	IDR	25.400.000	IDR	26.670.000	IDR	28.003.500	
Employee Expenditures							
Salaries	IDR	299.000.000	IDR	328.900.000	IDR	361.790.000	
Utilities Expenses							
Electricity and Water	IDR	20.000.000	IDR	21.000.000	IDR	22.050.000	
Internet	IDR	11.160.000	IDR	11.718.000	IDR	12.303.900	

Initial Inventory	IDR	39.280.000	IDR	41.244.000	IDR	43.306.200
Capital Expenditures						
Equipment	IDR	53.142.000	IDR	-	IDR	-
Furniture	IDR	9.300.000	IDR	-	IDR	-
Tax (0.5%)	IDR	559.624	IDR	763.495	IDR	1.007.662
Total Cash Outflows	IDR	673.433.324	IDR	678.225.950	IDR	753.581.285
Cash Flow	IDR	45.205.676	IDR	148.208.900	IDR	196.818.792
Ending Balance	IDR	765.205.676	IDR	913.414.575	IDR	1.110.233.367

		Year 4		Year 5	
Beginning Balance	IDR	1.110.233.367	IDR	1.365.090.623	
Sales Revenue	IDR	1.092.960.089	IDR	1.256.904.102	
Sales Disburments					
COGS (30%)	IDR	327.888.027	IDR	377.071.231	
Marketing Expenditures					
Marketing and Promotion	IDR	29.403.675	IDR	30.873.859	
Employee Expenditures					
Salaries	IDR	397.969.000	IDR	437.765.900	
Utilities Expenses					
Electricity and Water	IDR	23.152.500	IDR	24.310.125	
Internet	IDR	12.919.095	IDR	13.565.050	
Initial Inventory	IDR	45.471.510	IDR	47.745.086	
Capital Expenditures					
Equipment	IDR	-	IDR	-	
Furniture	IDR	-	IDR	-	
Tax (0.5%)	IDR	1.299.027	IDR	1.645.607	
Total Cash Outflows	IDR	838.102.834	IDR	932.976.856	
Cash Flow	IDR	254.857.256	IDR	323.927.246	
Ending Balance	IDR	1.365.090.623	IDR	1.689.017.869	

Source: ????

The beginning balance uses the number of owner’s investments; for the marketing expenditures, there are marketing and promotion costs; employee expenditures include salary consisting of one CEO and three employees, utility expenses including electricity and water, internet, initial inventory, and capital expenditures including equipment, furniture and tax. For the table of Cash Flow I made for the five years where the calculations used:

$$\text{Cash Flow} = \text{Sales Revenue} - \text{Total Cash Outflows}$$

Table 4. Maclov's Balance Sheet

	Year 1	Year 2	Year 3
Assets			
Current Assets			

Cash	IDR	765.205.676	IDR	913.414.575	IDR	1.110.233.367
Inventory	IDR	471.360.000	IDR	966.288.000	IDR	1.485.962.400
Non Current Assets						
Equipment	IDR	53.142.000	IDR	47.827.800	IDR	45.473.540
Equipment Depreciation	IDR	(5.314.200)	IDR	(2.354.260)	IDR	(2.118.834)
Furniture	IDR	9.300.000	IDR	8.370.000	IDR	7.533.000
Furniture Depreciation	IDR	(930.000)	IDR	(837.000)	IDR	(753.300)
Total Assets	IDR	1.292.763.476	IDR	1.932.709.115	IDR	2.646.330.173
Liabilities and Equity						
Owner Fund	IDR	1.180.838.612	IDR	1.780.010.052	IDR	2.444.797.745
Retained Earning	IDR	111.924.864	IDR	152.699.063	IDR	201.532.428
Total Liabilities & Equity	IDR	1.292.763.476	IDR	1.932.709.115	IDR	2.646.330.173

		Year 4		Year 5
Assets				
Current Assets				
Cash	IDR	1.365.090.623	IDR	1.689.017.869
Inventory	IDR	2.031.620.520	IDR	2.604.561.546
Non Current Assets				
Equipment	IDR	43.354.706	IDR	41.447.755
Equipment Depreciation	IDR	(1.906.951)	IDR	(1.716.256)
Furniture	IDR	6.779.700	IDR	6.101.730
Furniture Depreciation	IDR	(677.970)	IDR	(610.173)
Total Assets	IDR	3.444.260.628	IDR	4.338.802.472
Liabilities and Equity				
Owner Fund	IDR	3.184.455.266	IDR	4.009.681.129
Retained Earning	IDR	259.805.363	IDR	329.121.343
Total Liabilities & Equity	IDR	3.444.260.628	IDR	4.338.802.472

Source: ????

Assets are divided into 2, namely current and non-current assets, where the current assets consist of cash and inventory. Non-current assets include equipment, equipment depreciation, furniture, and furniture depreciation. Liabilities and equity consist of owner funds and retained earnings. The total assets, liabilities & equity each must be balance. To calculate the formula, use the following: Total liabilities & equity = total owners

Table 5. Payback Period Maclov

Initial Investment	720.000.000				
Cash Flow	45.205.676	148.208.900	196.818.792	254.857.256	323.927.246
Cumulative Cash Flow	45.205.676	193.414.575	345.027.692	451.676.048	578.784.502

Source: ????

For an initial investment, use the owner’s investment of IDR 720.000.000, cumulative cash flow, and accumulated cash flow every year. To calculate the Maclov payback period, use the following:

$$\begin{aligned}
 \text{Payback Period} &= n + (a-b) / (c-b) \times 1 \text{ year} \\
 &= 1 + (720.000.000 - 360.575.964) / (469.476.918 - 360.575.964) \times 1 \text{ year} \\
 &= 1 + 359.424.036 / 108.900.954 \times 1 \\
 &= 4,300 = 4 \text{ years } 3 \text{ months}
 \end{aligned}$$

Noted:

n = last year, the amount of cash flow has not been able to cover the initial investment capital

a = Amount of initial investment

b = cumulative amount of cash flows in the nth year

c = Cumulative sum of the nth year cash flows + 1

Table 6. Net Present Value

Year	Cash Flow	DF 5%	PV
0	(720.000.000)	1	(720.000.000)
1	45.205.676	0,952381	43.053.024
2	148.208.900	0,907029	134.429.841
3	196.818.792	0,863838	170.019.473
4	254.857.256	0,822702	209.671.695
5	323.927.246	0,783526	253.805.473
Net Present Value			90.979.506

Source: ????

For the net present value report I made for five years, where the calculation of the formula:

$$\begin{aligned}
 \text{Net Present Value} &= \text{Total PV 0 until last year} \\
 &= 720.000.000 - 43.053.024 - 134.429.841 - 170.019.473 - 209.671.695 - 253.805.473 \\
 &= 90.979.506
 \end{aligned}$$

4. Conclusion and Implications

Based on the results and discussion, it can be concluded that:

- a. Based on Porter’s Five Forces, there is an excellent opportunity to run this snack business to make Maclov’s a profitable business opportunity.
- b. Based on the Payback Period and Net Present Value, Maclov’s financially viable, and running the business is a profitable one for the owner.
- c. Store location in South Jakarta matched with target market, since most university students like snacks

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