

Design of Proposed Opening of Onamazu Farm Business Branch in Cobleng District Bandung West Java

Muhammad Tariq Arrazzaq¹, Maria Dellarosawati Idawicaksakti², Isnaeni Yuli Arini³

^{1,2,3}Faculty of Industrial Engineering, Universitas Telkom, Indonesia

mthariqarrazzaq@student.telkomuniversity.ac.id, mariadellarosawati@telkomuniversity.ac.id

Abstract

Onamazu Farm is a company engaged in catfish farming. The product sold by Onamazu Farm is consumption catfish with a size of 110-120gr/head or the equivalent of 7-8 fish per Kg. Onamazu Farm was established in 2018, until now Onamazu Farm can produce around 1,000 Kg of catfish in each period. From the demand data for the past 3 years, a problem was found where the company was unable to meet market demand. From the fishbone analysis, it is known that the main problem lies in the poor facilities and limited land owned. So that the opening of the Onamazu Farm branch by reviewing market, technical and financial aspects is considered to be able to solve the problems being faced. This research uses linear trend forecasting method, single exponential smoothing and moving average. The method with the smallest MSE will be chosen to obtain market aspect data. Furthermore, the straight-line depreciation method is used to obtain the depreciation value on the technical aspects. In the financial aspect, several methods are used such as internal rate of return (IRR), net present value (NPV), and payback period (BPB) to determine whether the business design is feasible or not.

Keywords

catfish; feasibility analysis; NPV; IRR; payback period.



I. Introduction

Onamazu Farm is one of the MSMEs engaged in catfish farming. This company has been established since 2018 and is located on Jl. Keprabon III, Buahbatu District, Bandung, West Java. Currently Onamazu Farm is experiencing a problem in running its business, which is not being able to meet the existing demand. The following is the demand and availability of products from 2019-2021.

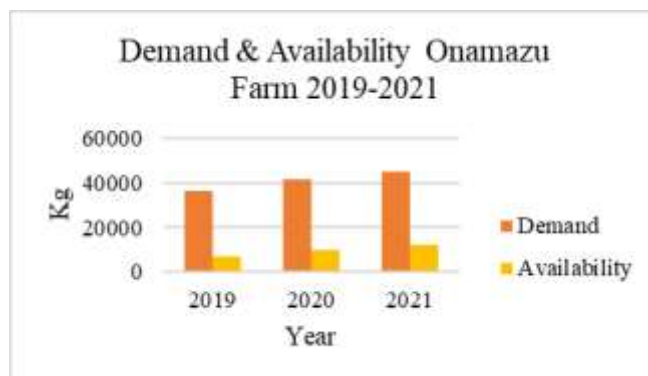


Figure 1. Data on Demand and Availability of Onamazu Farm Products 2019-2021.

Referring to the above factors, it can be seen that currently Onamazu Farm can only fulfill 48.3% of requests. With the high demand, a new business opportunity was created, namely opening a branch of the catfish rearing business on Onamazu Farm. The opening of this new business line can be located in the Cobloug sub-district, precisely in Dago Village. The opening of the Onamazu Farm business branch can be carried out in October 2022, this business branch will produce catfish enlargement ready for consumption to meet the needs of catfish pecel traders. The reason for establishing a business branch of Onamazu Farm is the difficulty of the company in meeting market demand and the land owned is not sufficient to increase production capacity.

Based on the data presented above, it can be concluded that a problem is the need to open a branch for growing catfish seeds ready for consumption. To describe the problems being faced, an analysis is carried out using the fishbone diagram method. Here is a display of the fishbone diagram

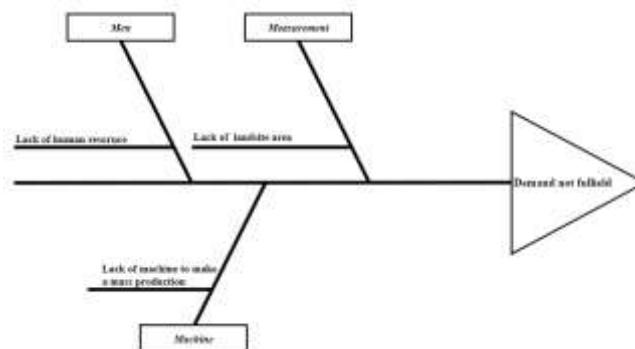


Figure 2. Fishbone Diagram

From the fishbone diagram above, it is known that there are three problems, namely high demand, narrow land and inadequate equipment. These three problems refer to one main problem, namely the demand cannot be fulfilled. An alternative solution is needed in the form of opening a branch of business for raising catfish seeds ready for consumption to solve the problems being faced. However, to ensure that the proposed business is feasible or not, it is necessary to design the proposal first. The design of this business proposal will determine whether the opening of a business branch for growing catfish seedlings ready for consumption is feasible or not. The analysis will be carried out from various sides, ranging from financial aspects, technical aspects to market aspects.

1.1 Man

In the Man's factor analysis, it can be seen that the company is currently experiencing problems where the lack of human resources is owned. This problem can be solved by adding resources in the form of additional manpower accompanied by the opening of new branches with a review of market, technical and financial aspects.

1.2 Measurement

In the Measurement factor analysis, it can be seen that the company is currently experiencing problems where the land owned is limited to increase production. Therefore, there is an alternative solution, namely adding land by opening a new branch with a review of market, technical and financial aspects.

1.3 Machine

In machine factor analysis, it can be seen that currently the company does not have a machine that is capable of producing on a large scale (mass production). It takes the addition of a number of facilities, but in catfish farming the addition of facilities is only as a supporting factor so it is not recommended to do it.

II. Review of Literature

2.1 Business Planning

A business plan is a written document archived by an entrepreneur that describes all the relevant elements both internal and external about the company to start a business, its content is often an integrated plan regarding marketing, capital, manufacturing and human resources (Hisrich & Peters).

2.2 Feasibility Study

A feasibility study is a study conducted to determine and assess the feasibility of a business that will run. The definition of a feasibility study according to [1] is "a comprehensive assessment to assess the success of a project, and a project feasibility study has the aim of avoiding too large an investment for activities that turn out to be unprofitable.

2.3 Purpose & Benefits of Feasibility Study

1. Financial & Economic Benefits

The benefits that can be felt from an economic perspective are increasing the number of goods & services, improving product quality, increasing foreign exchange and saving foreign exchange.

2. Social Benefits

In terms of social benefits, it can make it easier to open new jobs, the availability of facilities and infrastructure, and open regional isolation.

2.4 Feasibility Study Aspect

a. Market Aspect

The market and marketing aspects aim to find out how big the market will be, the existing market structure and opportunities, market prospects in the future, and how the marketing strategy should be done (Kasmir & Jakfar). The market and marketing aspects present market opportunities, future product demand developments, constraints faced such as the presence of competitors, as well as several strategies undertaken in marketing.

b. Request forecast

1. Linear Trend

Linear Trend is a movement (tendency) up or down in the long term, which is obtained from the average change over time. The average change can increase or decrease. If the average change increases, it is called a positive trend or the trend has an upward trend. Conversely, if the average change decreases, it is called a negative trend or a trend that has a downward trend.

2. Moving Average

The moving average is a forecasting method that is carried out by taking a group of observed values, looking for the average value as a forecast for the period to come (Subagyo, 2008). The Moving Average method has special characteristics, namely; To

determine forecasts in the future period requires historical data for a certain period of time. For example, with a 3-month moving average, the 5th month forecast is only made after the 4th month finishes/ends. If the 7th month moving averages can only be made after the 6th month ends. The longer the timeframe of the moving average, the more visible the smoothing effect is in the forecast or resulting in a smoother moving average. The mathematical equation for single moving averages is as follows:

$$\hat{Y}_t = \frac{1}{n} (Y_{t-n+1} + Y_{t-n+2} + \dots + Y_{t-1} + Y_t)$$

3. Single Exponential Smoothing

This method is used for short-term forecasting. The model assumes that the data fluctuates around a fixed mean, with no consistent growth trend or pattern. Unlike Moving Averages, Exponential Smoothing places greater emphasis on the current time series through the use of a smoothing constant. The smoothing constant may range from 0 to 1. Values close to 1 place the greatest emphasis on the current value while values close to 0 place emphasis on previous data points.

c. Technical Aspect

The technical aspect is an aspect related to the physical development process of the business technically and its operation after the physical building is completed (Kamaluddin). Discussions in technical aspects include determining project locations, obtaining production raw materials, as well as selecting machines and types of technology used to support the production process. The technical aspects include:

1. Location
2. Raw material
3. Machinery & Technology
4. Labor

d. Financial Aspect

In the financial aspect, it discusses the methods in conducting financial analysis.

1. Net Present Value (NPV)

NPV or Net Present Value is the value of a project obtained from the difference between the cash flow (PV net cash) generated and the investment (PV investment) issued (Kasmir, 2017). The formula for NPV is as follows:

2. NPV = PV Benefit – PV Cost

The assessment criteria for the NPV is that it can be said to be feasible if "NPV > 0"

3. Payback Period (PBP)

PBP or Payback Period is an assessment technique for a certain period or period to find out the return on investment in a business project that is being carried out. This method is used to find out the interest rate needed to equalize the expected cash flow value in the future by experiencing investment at the beginning of the business development (Umar). Payback period can be known by using the following formula:

$$K(PBP) = \sum_{i=1}^k CF \geq 0$$

If the Cashflow benefit and cost components are annual, then the formula becomes:

$$PBP = \frac{\text{Investasi}}{\text{Annual Benefit}} \times \text{Periode Waktu}$$

4. Internal Rate Of Return (IRR)

IRR is a tool to measure the interest rate by equating the total present value of receipts received with the present amount of spending on investment (Purwana & Hidayat, 2016). There are two methods used to find the IRR (Internal Rate of Return). If the IRR is greater (>) than the loan interest, it is accepted. If the IRR is less (<) than the loan interest. The formula for the IRR is as follows:

$$IRR = i_1 + \frac{NPV_1}{NPV_1 - NPV_2} \times (i_{12} - i_1)$$

III. Research Method

3.1 Systematics Design

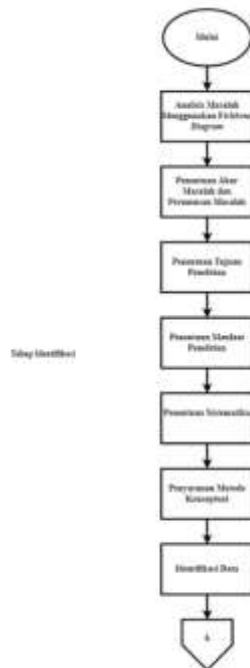


Figure 3. Design Systematics (1)

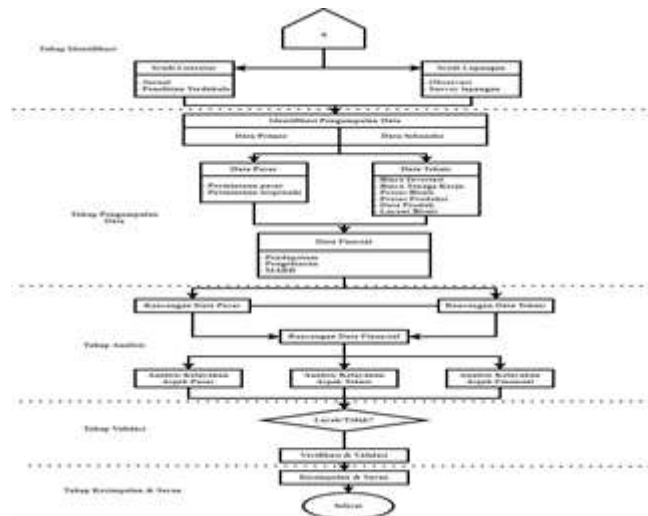


Figure 4. Design Systematics (2)

IV. Result and Discussion

4.1 Data processing

It takes demand data for the past 3 years to determine demand forecasting, here is the demand data for the past 3 years

Table 1. Demand 2019-2021

Period	Demand
2019/2020	36600
2020/2021	41400
2021/2022	45000

4.2 Design Specifications & Design Standards

Table 2. Design Specifications & Standards

No	Specification	Information
1	Micro Business Establishment	In Law 11/2011, micro-scale MSMEs are businesses with a maximum capital of IDR 1 billion excluding land and buildings and annual sales of a maximum of IDR 2 billion. Source: Law 11/2020
2	Provisions for the building area of the pool	International standards are used in m2 units to make a pond. The size of the pool itself follows the existing pool with a round size of 3m2 in diameter and 1m2 in height. Source: Wikipedia.com
3	Wages	The salary of pool workers in Bandung is IDR 1,800,000 per month Source: Onamazu Farm
4	Manager salary	Referring to the UMK in the City of Bandung for workers, it is Rp. 3,774,860. Therefore, the manager's salary is IDR 3,800,000 per month. Source: Onamazu Farm

4.3 Design Process

a. Production Volume

To get the volume of production, required data processing with forecasting methods. This is needed to get a forecast of future demand. By using historical data of demand on Onamazu Farm, forecasting methods can be carried out. There are three forecasting methods, namely the linear trend method, moving average and single exponential smoothing. From the three methods, one method with the smallest error value will be selected, while the error values for the three methods are as follows.

Table 3. MSE Value Forecasting Method

Method	MSE
Linear Trend	114739.20
Moving Average	244753.09
Single Exponential Smoothing	214606.60

The smallest value is obtained on the Linear Trend. Therefore, a linear trend is used to get forecasts for the next 36 periods. The following is a forecast for the next 36 periods.

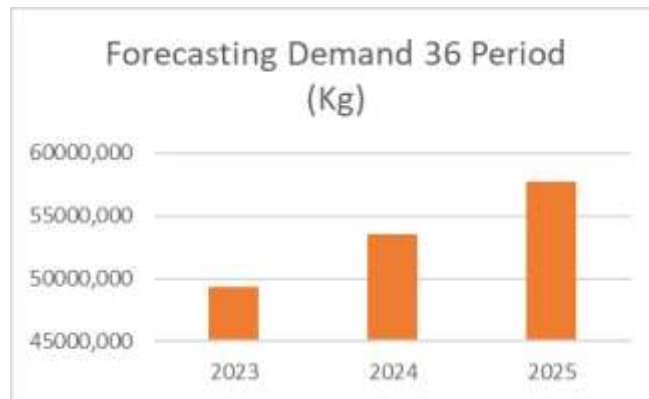


Figure 5. Forecasting Fever 36 Period

b. Labor Needs

After calculating, it takes a total of 8 workers with details of 7 pool crew and 1 manager. The pool crew will do work such as feeding, sorting and harvesting. Meanwhile, the manager will play a role in managing the role of each pool crew. Each worker will get 4 days off every month. The pool crew will get a work wage of IDR 1,800,000 while the manager will get a work wage of IDR 3,800,000. Each employee will get 1x THR bonus every year.

c. Estimated Investment Cost

Table 4. Investment Cost

Investation	Amount	Cost	Economic age	Total
Concrete brick	8000	IDR 500.00	4	IDR 4,000,000.00
Steel Rang	8	Rp 458.000.00	20	Rp 3,664,000.00
Sand	5	IDR 150,000.00	4	IDR 750,000.00
Cement	10	Rp 58.000.00	20	IDR 580,000.00
Wood	10	IDR 62,000.00	4	Rp 620,000.00
Roof tile	100	IDR 2,000.00	4	IDR 200,000.00
1 set door	1	IDR 500,000.00	4	IDR 500,000.00
Boreholes	1	IDR 15,000,000.00	4	IDR 15,000,000.00
Construction workers	3	IDR 2,100,000.00		IDR 6,300,000.00
Land lease	1	IDR 75,000,000.00	3	IDR 75,000,000.00
Pool	26	IDR 1,850,000.00	20	IDR 48,100,000.00
Storage Pool	1	IDR 10,000,000.00	20	IDR 10,000,000.00
Sorting Pool	2	IDR 1,500,000.00	20	IDR 3,000,000.00
Sort Area	1	IDR 3,000,000.00	20	IDR 3,000,000.00
Total land & building investment				Rp 170,714,000.00
Plastic chair	4	IDR 50,000.00	4	IDR 200,000.00
Wooden table	2	IDR 200,000.00	4	IDR 400,000.00

Squat chair	2	IDR 25,000.00	4	IDR 50,000.00
Bucket	2	IDR 15,000.00	4	IDR 30,000.00
Dipper	2	IDR 10,000.00	4	IDR 20,000.00
Shovel	1	IDR 90,000.00	4	IDR 90,000.00
Hoe	1	IDR 10,000.00	4	IDR 10,000.00
digital scales	1	IDR 250,000.00	4	IDR 250,000.00
Hanging scales	1	IDR 360,000.00	4	IDR 360,000.00
Scissor	1	IDR 15,000.00	4	IDR 15,000.00
Knife	1	IDR 30,000.00	4	IDR 30,000.00
Total investment of facilities & equipment				IDR 1,455,000.00
Water pump machine	6	IDR 400,0000.00	4	IDR 2,400,0000.00
Total machine investment				IDR 2,400,0000.00
Total Tangible Investment				Rp 174,569,0000.00

d. Location Determination

Before this research was conducted, Onamazu Farm had plans to open a new location, therefore the location selection had been determined by Onamazu Farm itself. The location selection is in Kp. embankment. District Dago. Cobolong Ex. Bandung West Java. Due to the location selection has been determined by the company, it is no longer necessary to calculate the racing factor.

e. Location Layout

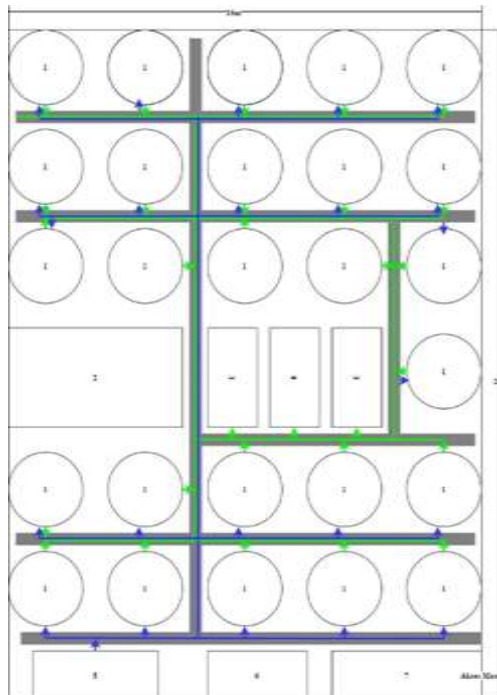




Figure 6. Location Layout Image

It takes a land area of 494m²(26x19m²), as for the description of the symbols in the layout above are as follows.

Table 5. Layout Description

Symbo l	Information	Size
1	Magnification pool	3x3m2
2	Water storage pool	7x4m2
3	Sorting pool	4x2m2
4	Sorting table area & packing table	4x2.5m2
5	warehouse	5x2m2
6	Saung	4x2m2
7	parking area	6x2m2
	Access road	-
	Sort & harvest flow	-
	Feeding flow	-

4.4 Financial Data Design Process

a. Production cost

Direct costs consist of raw material costs and labor costs. The following is an annual breakdown of direct costs.

Table 6. Direct Costs

Biaya Langsung			
Tahun/ Keterangan	2023	2024	2025
Biaya bahan baku	Rp 529,163,052	Rp 574,016,609	Rp 618,870,166
Biaya tenaga kerja	Rp 196,800,000	Rp 198,945,120	Rp 201,113,622
Total biaya langsung	Rp 725,963,052	Rp 772,961,729	Rp 819,983,788

b. Funding Needs & Sources

The need for funding sources is determined from the required investment costs and working capital for the first 1 year. The source of funds will be fully borne by Onamazu Farm without any intervention from a 2nd party as a source of loan. The details of the sources of funds needed are as follows.

Table 7. Needs & Sources of Funds

Funding Needs				
Fund Type	Big Funds	Source of funds	Accumulation	Amount
Initial Investment	Rp174,569,000	Company Equity	100%	Rp921,355,747
Working capital	Rp744,086,747			
Sip	IDR 2,700,000			
Total	Rp921,355,747	Total		Rp921,355,747

c. Profit and Loss Projection

Table 8. Projected Profit and Loss

Profit/Loss Project			
Year	2023	2024	2025
Income			
Sale	Rp 1,036,757,838	Rp 1,124,636,757	Rp 1,212,515,676
3%	Rp 31,102,735	Rp 33,739,103	Rp 36,375,470
Total income	Rp 1,005,655,103	Rp	Rp

		1,090,897,654	1,176,140,205
<i>Cost Of Good Sold (COGS)</i>			
Direct Material Cost	Rp 529,163,052	Rp 574,016,609	Rp 618,870,166
Direct labor costs	IDR 196,800,000	Rp 198,945,120	Rp 201,113,622
Total Direct Cost	Rp 725,963,052	Rp 772,961,729	Rp 819,983,788
Indirect Cost			
Engine Fuel Cost	IDR 727,695	Rp 736,428	IDR 745,265
Building Depreciation Cost	Rp 5,834,700	Rp 5,834,700	Rp 5,834,700
Facility and Equipment Depreciation Expense	IDR 363,750	IDR 363,750	IDR 363,750
Machine Depreciation Cost	IDR 600,000	IDR 600,000	IDR 600,000
Maintenance cost	Rp 396,000	IDR 435,600	Rp 479,160
Transportation costs	IDR 600,000	IDR 607,200	Rp 614,486
THR	IDR 16,400,000	Rp 16,578,760	Rp 16,759,468
Total Indirect Cost	Rp 24,922,145	IDR 25,156,438	Rp 25,396,830
Total Cost of Goods Manufactured	Rp 750,885,197	Rp 798,118,167	Rp 845,380,618
Available Finished Good for Sale	Rp 750,885,197	Rp 798,118,167	Rp 845,380,618
Total Cost Of Goods Sold	Rp 750,885,197	Rp 798,118,167	Rp 845,380,618
<i>Gross Profit</i>	Rp 254,769,906	Rp 292,779,487	Rp 330,759,588
EBIT (Earning Before Interest & Tax)	Rp 254,769,906	Rp 292,779,487	Rp 330,759,588
Interest Expence	Rp -	Rp -	Rp -
EBT (Earnings Before Tax)	Rp 254,769,906	Rp 292,779,487	Rp 330,759,588
Taxes (0.5%)	Rp 5,183,789	Rp 5,623,184	Rp 6,062,578
EAIT (Earning After Interest & Tax)	Rp 249,586,116	Rp 287,156,304	Rp 324,697,009

d. Cash Flow Projection

Table 9. Projected Cash Flow

Cash Flow				
Period	2022	2023	2024	2025
Estimated Cash Inflows				
Initial Investment	Rp 921,355,747			
Sales revenue		Rp 1,005,655,103	Rp 1,090,897,654	Rp 1,176,140,205
Total Cash Flow Estimate	Rp 921,355,747	Rp 1,005,655,103	Rp 1,090,897,654	Rp 1,176,140,205
Estimated Cash Flow				
Machine and Equipment Cost	IDR 3,855,000			
Land and Building Cost	Rp 170,714,000			
SIUP Fee	IDR 2,700,000			
Direct Material Cost		Rp 529,163,052	Rp 574,016,609	Rp 618,870,166
Direct labor costs		IDR 196,800,000	Rp 198,945,120	Rp 201,113,622
Engine Fuel Cost		IDR 727,695	Rp 736,428	IDR 745,265
Maintenance cost		Rp 396,000	IDR 435,600	Rp 479,160
Transportation		IDR 600,000	IDR 607,200	Rp 614,486

costs				
THR		IDR 16,400,000	Rp 16,578,760	Rp 16,759,468
Taxes (0.5%)		Rp 5,183,789	Rp 5,623,184	Rp 6,062,578
Total Cash Expenditure	IDR 177,269,000	Rp 749,270,536	Rp 796,942,900	Rp 844,644,746
Net Cash Flow	Rp 744,086,747	Rp 256,384,566	Rp 293,954,754	Rp 331,495,459
Cash Beginning Balance		Rp 744,086,747	Rp 1,000,471,314	Rp 1,294,426.067
Cash End Balance	Rp 744,086,747	Rp 1,000,471,314	Rp 1,294,426.067	Rp 1,625,921,527

e. Financial Balance Projection

Table 10. Projected Financial Balance

Balance sheet			
Year	2023	2024	2025
<i>ASSET</i>			
<i>Current Asset</i>			
Final Cash Balance	Rp 1,000,471,314	Rp 1,294,426.067	Rp 1,625,921,527
Available Finished Products	Rp -	Rp -	Rp -
Total Asset Flow	Rp 1,000,471,314	Rp 1,294,426.067	Rp 1,625,921,527
<i>Fixed Intangible Asset</i>			
Cost of SIUP	IDR 2,700,000	IDR 2,700,000	IDR 2,700,000
Total Intangible Assets	IDR 2,700,000	IDR 2,700,000	IDR 2,700,000
<i>Fixed Asset</i>			
Machine and Equipment Cost	IDR 3,855,000	IDR 3,855,000	IDR 3,855,000
Land and Development Cost	Rp 170,714,000	Rp 170,714,000	Rp 170,714,000
<i>Total Fixed Assets</i>			
Accumulated Depreciation of Land and Buildings	Rp 5,834,700	Rp 11,669,400	Rp 17,504,100
Accumulated Depreciation of Facilities and Equipment	IDR 363,750	IDR 727,500	Rp 1,091,250
Accumulated Depreciation Machine	IDR 600,000	IDR 1,200,000	IDR 1,800,000
Total Accumulated Depreciation	Rp 6,798,450	Rp 13,596,900	Rp 20,395,350
Total Assets	Rp 1,170,941,864	Rp 1,458,098,167	Rp 1,782,795,177
<i>Liabilities & Owner Equities</i>			
Remaining Debt	0	0	0
Total Remaining Debt	0	0	0
<i>Owner Equities</i>			
Investation	Rp 921,355,747	Rp 921,355,747	Rp 921,355,747
Retained earning	Rp 249.586,116	Rp 287,156,304	Rp 324,697,009
Accumulated Retained Earnings	Rp 249.586,116	Rp 536,742,420	Rp 861,439,429
Total Owner Equity	Rp 1,170,941,864	Rp 1,458,098,167	Rp 1,782,795,177
Balance Sheet Check	Rp -	Rp -	Rp -

f. Investment Eligibility

Table 11. Feasibility of Investment

Feasibility Analysis					
Year		2022	2023	2024	2025
Period		0	1	2	3
Initial Cash Flow (Cash Out)		Rp 921,355,747			
Salvage Value					IDR 65,259,900
Working Capital					Rp 744,086,747
Land					
EAT + Depreciation			Rp 256,384,566	Rp 293,954,754	Rp 331,495,459
Operational Cash Flow (Cash In)		Rp -	Rp 256,384,566	Rp 293,954,754	Rp 1,140,842,107
Net Cash		-Rp 921,355,747	Rp 256,384,566	Rp 293,954,754	Rp 1,140,842,107
p/f Factor	5.00%	1	0.952380952	0.907029478	0.863837599
NPV		-Rp 921,355,747	Rp 244,175,777	Rp 266,625,627	Rp 985,502,306
Cumulative NPV		-Rp 921,355,747	-Rp 677,179.970	-Rp 410,554,343	Rp 574,947,963
Interest Rate	5.00%				
NPV	Rp 574,947,962.79				
PBP	2.4				

Table 12. Internal Rate of Return (IRR)

Internal Rate of Return					
Year		2022	2023	2024	2025
Period		0	1	2	3
Net Cash		-Rp 921,355,747	Rp 256,384,566	Rp 293,954,754	Rp 1,140,842,107
p/f Factor	29%	1	0.775193798	0.600925425	0.465833663
NPV		-Rp 921,355,747	Rp 198,747,726	Rp 176,644,885	Rp 531,442,657
Cumulative NPV		-Rp 921,355,747	-Rp 722,608,021	-Rp 545,963,136	-Rp 14,520,479
Net Cash		-Rp 921,355,747	Rp 256,384,566	Rp 293,954,754	Rp 1,140,842,107
p/f Factor	30%	1	0.769230769	0.591715976	0.455166136
NPV		-Rp 921,355,747	Rp 197,218,897	Rp 173,937,724	Rp 519,272,693
Cumulative NPV		-Rp 921,355,747	-Rp 724,136,850	-Rp 550,199,126	-Rp 30,926,433
IRR		28.11%			

V. Conclusion

1. Market size is obtained by using the calculation of the linear trend forecasting method by processing historical data on the current market demand of Onamazu Farm. The market size is then obtained for the next three years (36 periods), where in 2023 it is 49369 Kg, in 2024 it is 53554 Kg and in 2025 it is 57739 Kg.
2. The opening of a business branch is located in Kp. Embankment Ex. Dago, district. Coblong, Bandung, West Java.
3. The required area is 496m² (16x26m) which has been laid out and has been approved by Onamazu Farm.
4. The production design used is the same as the production design used by the company today.
5. Production time required for harvesting is 225 minutes, for sorting for 330 minutes and for feeding for 15 minutes. The product can be sold after reaching the ready-to-harvest size with an average weight of 120g per product or with a span of 2 months of growing.
6. It takes 8 workers with details of 7 pool crew and 1 manager. Every worker is entitled to get 4x days off for 1 month.
7. The wages paid for the pool crew are Rp. 1,800,000 and the manager is Rp. 3,800,000. Each worker will also get a THR equal to 1x salary which will be paid 1x every year on Eid al-Fitr.
8. There is a production volume calculation that is given an allowance of 3% to avoid failure during the production process.
9. The cost of raw materials for the production of 1 Kg of catfish is Rp. 10,406.
10. The investment costs that need to be incurred for this business branch are Rp921,355,747. Which includes the cost of renting land for 3 years, buildings, facilities and equipment, machinery, and working capital.
11. The assumption of tax payments per year is 0.5% following the regulations of the Indonesian Directorate General of Taxes for MSMEs with a turnover of less than 5 billion Rupiah.
12. The feasibility of investing in this design is declared feasible with an NPV value of Rp574,947,962 with a PBP value for 2.5 years and an IRR of 28.11%. With these results, it can be concluded that the opening of a branch from Onamazu Farm is feasible, this is evidenced by the $IRR > MARR$ value where $28.11\% > 5\%$.

References

- Afiyah, A., & Muhammad Saifi, D. (2015). Business Feasibility Study Analysis of Home Industry Establishment (Case Study on “Cozy” Chocolate Home Industry Kademangan Blitar). Brawijaya University
- Afiyah, A., & Muhammad Saifi, D. (2015). Business Feasibility Study Analysis of Home Industry Establishment (Case Study on “Cozy” Chocolate Home Industry Kademangan Blitar). Brawijaya University.
- Allo Bank, 2022 Annual Deposit Interest. Retrived From Allo Bank <https://www.allobank.com/rate-limit-fees>
- Apriono, D., & Eva Dolorosa, I. Efficiency Analysis of Catfish Marketing Channels in Rasau Jaya 1 Village, Rasau Jaya District, Kubu Raya Regency. Journal of Social Economics Of Agriculture, 1(3).
- Central Bureau of Statistics (2017) "Aquaculture Production by Main Commodity (Tons)," <https://www.bps.go.id/indicator/56/1513/1/Production-Perikanan->

- Cultivation-According to-Commodity-Utama.Html
- Central Bureau of Statistics (2017) “Aquaculture Production by Main Commodity (Rupiah)”<https://www.bps.go.id/indicator/56/1513/1/Production-Perikanan-Cultivation-According-to-Commodity-Utama.Html>
- Central Bureau of Statistics. (2020) Aris Budianto. Buah Batu District in Figures 2020. Retrived From BPS Bandung City: <https://bandungkota.bps.go.id/publication/2021/09/24/60c5dcce8375bb77284e1c57/kecamatan-buahbatu-dalam-angka-2021.html>
- Central Bureau of Statistics. (2020) Aris Budianto. Coblong District in Figures 2020. Retrived From BPS Bandung City: <https://bandungkota.bps.go.id/publication/2021/09/24/60c5dcce8375bb77284e1c57/kecamatan-buahbatu-dalam-angka-2021.html>
- Central Bureau of Statistics. (2022). Bank Interest Rate In Rupiah. Retrived from the Central Bureau of Statistics: <https://www.bps.go.id/indicator/13/383/1/suku-bunga-kredit-rupiah-according-to-groups-bank.html>
- Directorate General of Taxes of the Republic of Indonesia. (2021). Grouping of Types of Business & Age of Goods. Retrived from the Directorate General of Taxes of the Republic of Indonesia: <https://www.pajak.go.id/id/penyusutan-dan-amortisasi>
- Nurmalina, R., Sarianti, T., & Karyadi, A. (2018). Business feasibility study. PT Publisher IPB Press
- Nurmalina, R., Sarianti, T., & Karyadi, A. (2018). Business feasibility study. PT Publisher IPB Press.
- Rachman, R. (2018). The application of the moving average and exponential smoothing methods in forecasting the garment industry production. *Journal of Informatics*, 5(2), 211-220.
- Saroni, S., Sokibi, P., & Putri, TE (2022). Furniture Sales Prediction System with Trend Linear Method (Case Study: CV. Independent Furniture). *Scientific Journal of Intech: Information Technology Journal of UMUS*, 4(01), 64-75.