

# ENHANCING FISHERIES ENTERPRISES: A CASE STUDY OF BAMBOO FISH CAGES IN KLOJEN, MALANG

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#### Abstract

The utilization of public resources as a business area for fish cultivation represents an innovative approach that can yield benefits for entrepreneurs. This not only generates profits for business owners but also has positive impacts on the environment, as demonstrated by the improvement in the cleanliness of the utilized water bodies such as rivers. This study focuses on the fish farming enterprise carried out by the "SM" fish farming group, specifically in the expansion of fish cultivation using bamboo cages. The group's efforts result in the production of high-quality tilapia, carp, and koi fish, contributing to consumer demand fulfillment. The objectives of this research are to analyze both the non-financial and financial feasibility of the fish cultivation business within the "SM" bamboo cage group and to assess strategies for its further development. The analytical methods employed include non-financial feasibility analysis, financial feasibility analysis, and SWOT analysis. The non-financial feasibility analysis indicates that the fish farming group "SM" meets the criteria, making it feasible for continuation. In the short-term financial analysis, the Return over Cost (R/C) ratio is 1.96, with a profit of Rp703,221,000, a Return on Equity Capital (REC) of 91.89%, and a Break Even Point (BEP) sales of Rp145,412,915. In the long-term financial feasibility, the Net Present Value (NPV) is Rp3,767,460,000, the Benefit-Cost Ratio (B/C) is 11.29, the Internal Rate of Return (IRR) is 211%, the Payback Period (PP) is 6 months and 11 days, and the sensitivity analysis suggests that the bamboo cage business is not sensitive. The strategic analysis places the enterprise in quadrant I, indicating a favorable situation with strengths and opportunities to be leveraged, aligning with a Strength-Opportunity (SO) strategy for further business development, supported by a Growth-Oriented Strategy.

Keywords: Bamboo Cage, Business Development Strategy, Food Security, SWOT.

# INTRODUCTION

The example of those who spend their wealth in the way of Allah is like a seed that grows seven stalks, on each stalk a hundred seeds. Allah multiplies for whom He wills and Allah is All-Wide, All-Knowing (Q.S. 2: 261). Public water resources that can be utilized for the development of aquaculture include fresh waters, such as rivers, reservoirs, technical irrigation channels, swamps, lakes; and brackish waters such as ponds, mangroves, and marine waters. The availability of this vast public water resource is a great opportunity to open a fisheries business in public waters (Cahyono, 2001).





The river is a large stream in the land area. The river becomes a place to flow from the upstream to the downstream of the river. The upstream is part of the river channel closest to the highest point in the mountains. Downstream is the part of the river channel closest to the river mouth. The river flows from a high place to a low place (Sofianty et al., 2007).

Malang City is one of the cities in East Java that has natural potential and a good climate. The natural potential of Malang City is that it is located quite high, namely 445 - 526 meters above sea level. One of the highest locations is the Buring Mountains located in the east of Malang City. The rivers that flow in the Malang City area are the Brantas, Amprong and Bango Rivers (Central Bureau of Statistics, 2020).

Fish rearing in cages can be done in irrigation rivers, lakes, or reservoirs. Cages are fish farming containers in the form of cages made of bamboo, wooden boards or nets placed in the body of a river, reservoir or lake. If only part of the cage is submerged in the river, the placement of the cages is arranged in a zigzag or alternating manner. Such placement aims to facilitate the flow of water and prevent waste from getting stuck in the cages. Meanwhile, the placement of cages that are completely submerged in the riverbed is less problematic because the flow of water causes waste to be easily washed away (Mahyuddin, 2010).

A business feasibility study is conducted to identify future problems, so as to minimize the possibility of slipping the results to be achieved in an investment. Business feasibility studies can at least provide guidance or direction to the business to be run (Kasmir & Jakfar, 2017). Business development strategy using SWOT analysis, which systematically identifies various factors to formulate company strategy. This analysis is based on logic that can maximize strengths and opportunities, but can simultaneously minimize weaknesses and threats. The strategic decision-making process is always related to the development of the company's mission, goals, strategies, policies. Thus the strategic planner must analyze the company's strategic factors (strengths, weaknesses, opportunities and threats) under current conditions. This is called Situation Analysis, the most popular model for analyzing situations is SWOT Analysis (Rangkuti, 2011).

The utilization of public resources as business land for fish farming is an innovation so that it can provide benefits for business owners. Not only does it provide benefits for business owners, but public resources that are utilized such as rivers also have a positive impact, namely the river becomes clean and the community around the business location begins to realize the importance of disposing of waste in its place. The chosen business location is the fish enlargement business in bamboo cages by the "SM" fish farmer group. The fish enlargement business carried out by the "SM" bamboo cage fish farmer group can produce quality tilapia, tombro and koi fish products, so that it can play a role in meeting consumer needs. It is necessary to conduct research on business feasibility studies to find out whether the fish enlargement business in bamboo cages is feasible to run by examining the feasibility of non-financial aspects and the feasibility of financial aspects, as well as business development strategies in the future. The purpose of this research is to analyze non-financial business feasibility, analyze financial business feasibility and business development strategies for fish enlargement in bamboo cage fish farming groups.





# MATERIAL AND METHODS

# **Research Design**

This study employs a mixed-methods approach, combining quantitative and qualitative descriptive research. The sampling technique utilized is purposive sampling, also known as judgment sampling. Purposive sampling involves selecting samples from the population based on the researcher's specific criteria or objectives, aiming to represent the population's characteristics (Nursalam, 2008). The study population consists of fish farmers operating bamboo cages in the Bareng Kartini River. Respondents selected for the study are members of the bamboo cage fish farming group "SM," comprising 15 individuals.

# Short-Term Financial Analysis

According to Widjajanta and Aristanti (2007), production costs constitute a portion of the overall factors of production sacrificed in the production process to produce a product. It involves the total fixed and variable costs incurred by a company to produce a certain quantity of products within a specific period. In financial analysis, particularly when evaluating short-term financial health, the concept of total cost (TC) plays a pivotal role. Total cost is a comprehensive metric that encompasses both fixed costs (FC) and variable costs (VC). Fixed costs are those expenses that remain constant regardless of the quantity of goods or services produced, such as rent and salaries. On the other hand, variable costs fluctuate in direct proportion to the level of production, including expenses like raw materials and labor. Expressed as mathematical symbols:

# TC (Total Cost) is the sum of fixed costs (FC) and variable costs (VC).

Understanding these components is essential for businesses to effectively manage their resources and make informed decisions, especially in the dynamic landscape of short-term financial operations. By analyzing total cost, companies can gain insights into the overall cost structure, allowing for strategic adjustments and improvements to optimize financial performance.

According to Rossalia (2015), revenue, or total penerimaan, represents the amount a company receives from the sale of its produced goods. The total revenue is calculated by multiplying the quantity of goods (Q) produced by the unit price (P) of the respective product. This relationship can be expressed through the formula:

# TR (Total Revenue) = Q (Quantity of Goods) × P (Unit Priceper Product)

Understanding this formula is essential for businesses to gauge their revenue generation and make strategic decisions related to pricing, production levels, and overall financial performance.

According to Primyastanto (2011), the calculation of profit ( $\pi$ ) can be determined using the following formula:

$$\pi = TR - TC$$





In this equation,  $\pi$  signifies the profit in Indonesian Rupiah per year (Rp/year), while *TR* represents the Total Revenue, indicating the total income in Indonesian Rupiah per year (Rp/year). On the other hand, *TC* stands for Total Cost, denoting the overall cost incurred by the business in Indonesian Rupiah per year (Rp/year). This formula is fundamental for businesses to assess their financial performance, as it provides a clear measure of the profitability achieved by subtracting the total cost from the total revenue. Understanding and analyzing this profit equation is crucial for making informed decisions related to cost management, pricing strategies, and overall financial sustainability.

According to Primyastanto, M. and Istikharoh (2006), business profit or net income is the amount of revenue after deducting costs incurred for the production process, both fixed and variable, and a gross calculation is carried out called Earning Before Zakat (EBS) and the net profit is called Earning After Zakat (EAZ).

$$EAZ = EBS - Zakat (2,5\%)$$

According to Primyastanto, M (2011), Return to Equity Capital (REC) is a financial metric used to measure the return on an entity's equity or ownership capital. It provides insight into how effectively a business is generating profits relative to the amount of equity invested in the company. The REC is calculated by dividing the income (I), which includes the value of family labor (NKK), by the equity capital. The formula for calculating Return to Equity Capital is as follows:

$$REC = \frac{Income}{Equity Capital}$$

In this equation: *REC*: Return to Equity Capital, representing the efficiency of generating profits relative to equity; *Income*: Total income generated by the business, inclusive of the value of family labor; *Equity Capital*: The amount of equity or ownership capital invested in the business.

A higher REC value suggests that the business is effectively utilizing its equity capital to generate returns. This metric is valuable for investors, business owners, and analysts to assess the financial performance and efficiency of a company in utilizing its equity resources.

According to Mahyuddin (2010), the Return over Cost (R/C) analysis is a tool used to examine the relative profitability of a business within one year in relation to the costs incurred in its activities. A business is considered feasible if the R/C value is greater than 1 (R/C > 1). The higher the R/C value, the higher the level of profitability for a business. The calculation for R/C is as follows:

$$R/C = \frac{Total \ Revenue}{Total \ Cost}$$

In this formula: R/C: Return over Cost, indicating the relative profitability of the business; Total Revenue: The total income generated by the business; Total Cost: The total costs incurred in the business activities. A value greater than 1 signifies that the business is generating more





revenue than the total costs incurred, indicating a profitable venture. The R/C analysis is a valuable tool for evaluating the financial viability and success of a business over a specific time period.

According to Primyastanto, M. (2011), the Break Even Point (BEP) is a critical milestone that signifies the point at which a business neither incurs a profit nor sustains a loss. In other words, it is the equilibrium where total revenue equals total costs. The Break Even Point can be calculated using two methods:

1. BEP based on sales

$$BEP = \frac{Fixed \ Cost}{1 - \frac{Variable \ Cost}{Sales}}$$

Where:

Fixed Cost: the fixed costs incurred by the business Variable Costs: the variable costs associated with production Sales: the total sales value

2. BEP based on units

$$BEP = \frac{\sum Sales \ of \ Products}{\sum Total \ Sales} \ x \ Unit \ Price$$

Where:  $\sum$  Sales of products: the total sales of products

 $\Sigma$  Total sales: the overall total sales of all products

Unit Price: the unit price of the product

# **Long-Term Financial Analysis**

In long-term financial analysis, the Net Present Value (NPV) serves as a crucial metric, representing the difference between the total present value of benefits and costs associated with an agricultural business project. This benchmark is designed to project the net income value of an agricultural business project, evaluated based on the present value of money (Wahyudi et al., 2008). As outlined by Trubus (2014), NPV calculation is obtained through the formula:

$$NPV = \sum_{t=1}^{4} \frac{Bt - Ct}{(1+i)^t}$$

Where: Bt: Benefits or all revenues of the business in year t

Ct: Costs or all expences of the business in year t

t: Business year (t=1,2,3,4)

i: Discount rate (10%)





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Furthermore, Fatta (2007) introduces the Internal Rate of Return (IRR) as a method that considers the time value of money. IRR calculates the discount rate at which the net present value becomes zero. The calculation for IRR can be formulated as:

$$IRR = i' + \frac{NPV'}{(NPV' - NpV'')} x (i'' - i')$$

Where:

i": interest rate at the second interpolation (larger)

i': interest rate at the first interpolation (smaller)

NPV': NPV value at the first discount rate (positive)

NPV": NPV value at the second discount rate (negative)

Additionally, the Benefit/Cost Ratio (B/C ratio) is utilized to measure the relationship between costs incurred and the output obtained. A B/C ratio equal to 1 signifies that the output is equal to the costs, while a B/C ratio less than 1 indicates that the output is smaller than the costs (Widjajanta and Aristanti, 2007). According to Marimin (2004), the formula for calculating Net B/C is:

Net 
$$\frac{B}{C} = \sum_{t=1}^{n} \frac{Bt}{(1+i)^{t}} : \sum_{t=1}^{n} \frac{Ct}{(1+i)^{t}}$$

Where:

Bt': Benefit in year t Ct": Cost in year t

n : Technical live

I : Interest rate

Moreover, the Payback Period (PP) method, as outlined by Kasmir and Jakfar (2017), assesses the time it takes for a project or business to recover its investment. The calculation model used for determining the payback period is:

$$PP = \frac{Investment\ Cost}{Annual\ Net\ Cash\ Inflow}$$

Sensitivity analysis involves evaluating the risk of loss by varying costs and/or revenues in a business. This analysis aims to determine the extent to which the cash flow sensitivity is influenced by changes in each variable. Conducting sensitivity analysis is crucial for understanding the potential impact of various changes on cash flow (Primyastanto, M. 2016).

### **SWOT Analysis**

SWOT analysis is a systematic identification of various factors to formulate company strategy. This analysis is based on logic that aims to maximize strengths and opportunities while simultaneously minimizing weaknesses and threats. The strategic decision-making process is always related to the development of the company's mission, goals, strategies, and policies. Thus, the strategic planner must analyze the company's strategic factors (strengths, weaknesses,





opportunities, and threats) under current conditions. This process, known as Situation Analysis, is integral to strategic planning. The most popular model for analyzing the situation is the SWOT Analysis (Rangkuti, 2011). SWOT stands for Strengths, Weaknesses, Opportunities, and Threats, and it provides a comprehensive overview of the internal and external factors that can influence the company's performance. By identifying and understanding these factors, businesses can develop effective strategies that capitalize on their strengths and opportunities while addressing weaknesses and mitigating threats. SWOT analysis serves as a valuable tool for strategic planners in crafting informed and resilient business strategies.

## **RESULTS AND DISCUSSION**

The results and discussion encompass the feasibility analysis, consisting of Non-Financial Aspect Analysis and Financial Aspect Analysis. Additionally, business development strategy analysis comprises IFAS and EFAS analyses, along with determining business strategy through SWOT analysis.

### Non-Financial Aspect Feasibility Analysis

### Technical Aspect

The technical aspect encompasses raw materials, facilities, infrastructure, labor, production processes, and the output used in the fish farming of the "SM" bamboo cage group. In the fish farming venture by the "SM" group, the provision of raw materials, namely fish seeds, is sourced from specific areas. Koi fish seeds are obtained from breeders in Wajak due to their expertise in cultivating seeds using paddy fields, allowing koi fish to adapt and thrive in the river. Nila and tombro fish seeds are acquired from the Punten Fish Seed Center due to the high quality of the produced seeds.

*Equipment* involves tools used to facilitate the fish farming process in bamboo cages, including bamboo cages, hinges, locks, sliders, oxygen supplies, and scales. *Infrastructure* encompasses everything used to support the fish farming process, including road conditions and water sources. Although the road conditions are good with an asphalt surface, they are accessible only by two-wheeled vehicles. The water source is derived from the Brantas River.

*Labor* involves 15 members of the "SM" bamboo cage fish farming group. The proximity of the business location to the members' homes not only reduces transportation costs but also enhances the income of the members. The production process consists of five stages: land preparation, fish seed spreading, feeding, fish maintenance, and harvesting.

### Management Aspect

The management aspect is a crucial activity in a business, consisting of planning, organizing, actuating, and controlling.

*Planning:* Planning in the fish farming business by the "SM" bamboo cage fish farming group begins from the production process to marketing. The planning process includes aspects such as technical, marketing, social and economic, and legal planning.





*Organizing:* The bamboo cage fish farming group in the Kasin River has formed an organization named "SM." The goal of establishing the "SM" bamboo cage fish farming group is to enhance the skills of the community in building marine and fisheries resources management, creating new job opportunities, and improving the well-being of the surrounding community.

Actuating: The activities of the "SM" bamboo cage fish farming group are carried out cooperatively, starting from land preparation, cage assembly, fish farming techniques, and marketing. Collective voluntary work, such as maintaining the cleanliness of the river area, is often performed together. Member meetings are conducted to discuss challenges and share information, fostering mutual assistance and facilitating joint business activities.

*Controlling:* Control measures in the "SM" bamboo cage fish farming group involve monitoring the cleanliness of the river to ensure no debris obstructs the cages, allowing water to flow smoothly. Night watch activities are conducted to prevent the loss or theft of fish from the bamboo cages.

# Marketing Aspect

The marketing aspect of the fish farming business by the "SM" bamboo cage fish farming group includes marketing mix and marketing channels.

*Marketing Mix (4Ps):* The marketing mix in the fish farming business by the "SM" bamboo cage fish farming group comprises the 4Ps - Product, Price, Place, and Promotion.

- 1. Product: The group offers a variety of fish produced through bamboo cage farming, including koi, nila, and tombro.
- 2. Price: The pricing strategy is determined based on market conditions, production costs, and desired profit margins.
- 3. Place: The distribution of harvested products involves two channels. In the first channel, products are directly distributed to consumers. In the second channel, products are sold to middlemen (tengkulak), who then sell them to consumers.
- 4. Promotion: Promotion strategies to increase product visibility and sales are implemented by the "SM" bamboo cage fish farming group.

*Marketing Channels*: There are two marketing channels employed by the group:

- 1. Channel One: Direct distribution of the harvest to consumers.
- 2. Channel Two: Selling the harvest to middlemen (tengkulak), who act as intermediaries between the group and consumers. The middlemen then distribute the products to the end consumers.





## Socioeconomic Aspect

The impact of the business on the social aspect includes providing innovation to utilize local resources, fulfilling the food needs of the surrounding community, and contributing to social welfare through zakat. On the economic side, the business has a positive effect by increasing the income of the local community. The utilization of local resources and the production of fish for local consumption contribute to both social and economic development in the area. The provision of zakat reflects the commitment of the business to social responsibility and community welfare, showcasing a holistic approach to socioeconomic development.

## **Environmental Aspect**

The fish farming venture undertaken by the "SM" bamboo cage fish farmers' group has yielded positive impacts on the environmental front. The river environment, previously contaminated and untidy, has now transformed into a cleaner state due to the utilization of the river area for fish cultivation. The business has contributed to environmental sustainability by maintaining the cleanliness and health of the river, showcasing a responsible approach towards ecological conservation.

# Legal Aspect

The legal aspect of the fish farming enterprise conducted by the "Singa Mandiri" bamboo cage fish farmers' group is currently not legally registered due to the challenges in obtaining legal permits for the establishment of fish cages in the river. However, based on the guidelines outlined in the Minister of Marine Affairs and Fisheries of the Republic of Indonesia Decree No. Kep 14/MEN/2012 regarding the General Guidelines for the Growth and Development of the Main Institutions of Fisheries Players, the "SM" bamboo cage fish farmers' group was formed. The qualitative descriptive analysis results for the non-financial aspects can be observed in Table 1 below:

No	Non-financial aspects	Criteria	Information
1.	Technical	Saprodi	Suitable/feasible
2.	Management	Poach	Suitable/feasible
3.	Marketing	4Ps	Suitable/feasible
4.	Socioeconomic	Positive impact	Suitable/feasible
5.	Environment	Environmentally friendly	Suitable/feasible
6.	Law	SK No.14/MEN/2012	Suitable/feasible
7.	Institutional	Product downstreaming	Suitable/feasible

Table 1: Analysis of Non-Financial Aspects of Fish Cultivation Business in Bamboo Cages "SM"

### **Financial** Aspects

The financial aspect is the most important component in analyzing business feasibility. The feasibility analysis of financial aspects is divided into two, namely, analysis of short-term financial aspects and analysis of long-term financial aspects.





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## Financial Analysis Short-term

The results show that the revenue from tombro fish is Rp546,000,000,- per year, nila fish is Rp780,000,000,- per year, koi showa fish is Rp32,200,000,- per year, koi kohaku fish is Rp34,500,000,- per year, and koi sanke fish is Rp43,125,000,- per year. Thus, the total revenue is Rp1,435,825,000,- per year.

R/C Ratio: The R/C ratio analysis, which compares revenue to total production costs incurred, resulted in a value of 1.96. Since the R/C value is greater than one, it can be concluded that the fish farming enterprise conducted by the "Singa Mandiri" bamboo cage fish farmers' group is profitable.

Profit: The profit is the value obtained by subtracting the revenue from the total production costs incurred. The calculated profit is Rp703,221,000,- per year. However, this profit has not been reduced by the zakat cost, which amounts to Rp17,580,525,- per year. The net profit after paying zakat, or Earning After Zakat (EAZ), is Rp685,640,475,- per year.

Return to Equity Capital (REC): The Return to Equity Capital is the value of the return on selfowned capital. The Net Worth of the Capital (NKK) is Rp30,000,000,-, resulting in a REC value of 89%. This implies that the REC percentage obtained exceeds the bank interest rate of 12%, indicating that the business is efficient.

Break Even Point (BEP): The Break Even Point calculation includes both BEP unit and BEP sales. The BEP unit values are 1,580 kg for tombro fish, 3,160 kg for nila fish, 9 individuals for koi showa fish, 12 individuals for koi kohaku fish, and 17 individuals for koi sanke fish. The BEP sales value obtained is Rp145,412,915,-. The results of the short-term financial analysis can be seen in Table 2 below:

No	Financial analysis	Analysis Results	Information
1.	Short-term	1.96	Profit
2.	R/C	Rp703,221,000,-	Profit
3.	Profit	89 %	Efficient
4.	REC	Rp145,412,915,	Break even

Table 2: Analysis of Financial Aspects of Fish Cultivation Business in Bamboo Cages

### Long-term Financial Analysis

NPV (Net Present Value): The Net Present Value analysis is conducted to determine whether the business is feasible or not in the long term. The NPV value obtained is Rp3,767,460,000,-. Since the NPV value is greater than zero, it can be concluded that the business is feasible in the long term.

Net B/C (Net Benefit/Cost): Net B/C analysis is performed to assess the feasibility of the business in the long term. The Net B/C value obtained is 11.29, indicating feasibility as the value is greater than one.

IRR (Internal Rate of Return): Internal Rate of Return analysis is conducted to assess the efficiency of the business. The IRR value obtained is 211%, which is considered feasible as it





exceeds the predetermined interest rate of 12%.

PP (Payback Period): Payback Period analysis is conducted to determine how quickly the investment made to run a business can be recovered. The PP value obtained for the business is 0.528 years, equivalent to 6.3 months, or 192 days.

Sensitivity Analysis: Sensitivity analysis is used to understand the impact of changes in input or output on the overall system within the business. This analysis measures changes in input transfers or revenue from business output. The objectives of conducting this analysis in a project are: 1) improving project implementation methods; 2) refining the project design; and 3) reducing the risk of loss and indicating preventive measures that need to be taken (Haryanto et al., 2009). The results of the long-term financial analysis can be seen in Table 3 below:

No	Long term financial analysis	Analysis Results	Information
1.	NPV	Rp3,767,460,000,	Worthy
2.	NET B/C	11.29	Worthy
3.	IRR	211%	Worthy
4.	Payback Period	6 months 9 days	Worthy
5.	Sensitivity	Not sensitive	Worthy

Table 3: Analysis of the Financial Aspects of Fish Cultivation Business in Bamboo Cages

For short-term financial feasibility analysis includes production costs of Rp732,604,000, -. Revenue amounted to: Rp1,435,825,000, -. R/C amounted to: 1,96. Profits amounted to: Rp703,221,000, -, REC by: 91.89%. and Break Even Point sales of Rp145,412,915, - Longterm financial feasibility includes Net Present Value (NPV) of Rp3,767,460,000, -. , Net Benefit Costs Ratio (B/C) is worth : 11.29, Internal Rate of Return (IRR) worth : 211%, Payback Period (PP) for 6 months and 11 days, and Sensitivity Analysis states that this bamboo cage business is not sensitive. This provides a business opportunity for bamboo cage farming in the future to be prospective (Primyastanto, M., 2022). Demand for fish production from fish farming in bamboo cages in the market is very high so this opportunity must be utilized properly. The target market for the bamboo cage fish farming group "SM" is consumers of fish traders, angling owners, restaurant owners and koi fish hobbyists. The business location is close to the market, so many sellers in the market buy fish from the "SM" bamboo cage fish farmer group. This provides business hope that provides a multiplier effect, especially the supply chain for the downstream of the regional economy (Primyastanto. M, 2023). The emergence of fish farming in other bamboo cages. Or other aquaculture businesses with the same commodity. This could threaten the "SM" bamboo cage fish farming business. So it needs to be anticipated early in its business planning, in order to be efficient (Primyastanto. M, 2020)

# **SWOT** analysis

Based on the results of the SWOT analysis diagram, a coordinate axis (X, Y) can be obtained by subtracting the internal factors, where the strength value of 1.74 is subtracted by the weakness value of 1.22, resulting in 0.52 for the X-axis. Similarly, subtracting the external factors, where the opportunity value of 1.76 is subtracted by the threat value of 1.16, results in 0.60 for the Y-axis. By drawing a straight line through these points, the coordinates (0.52; 0.60)





are obtained, positioning it in quadrant I. Quadrant I represents a favorable situation where the fish farming business in bamboo cages has strengths and opportunities that can be utilized. It is suitable for employing a SO (Strength Opportunities) strategy to develop the business, supported by a Growth-Oriented Strategy. This approach aligns with the empowerment strategy for the community in the Klojen sub-district, Malang, aiming to enhance food security in the future.

# CONCLUSION

Based on the research, it can be concluded that the fish farming business in the "SM" bamboo cages group is feasible, both in terms of non-financial and financial aspects. Technical, managerial, marketing, social, economic, environmental, and legal aspects have been deemed viable. Financially, the business generates short-term profits and is considered feasible for the long term. The SWOT analysis indicates a favorable position, with strengths and opportunities to be maximized using the Strength Opportunities (SO) strategy, supported by aggressive growth. For the development of this business, it is recommended that the government provides specific support through education, guidance, and solutions related to licensing and environmental issues. Students are encouraged to assist business owners in marketing development, while entrepreneurs are reminded to pay attention to legal aspects related to licensing and the environmental impact of business activities.

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