



FEASIBILITY ANALYSIS OF GOURAMI GROWING BUSINESS (Case Study: Kota Galuh Village, Serdang Bedagai Regency)

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Abstract

The purpose of this study was to identify the availability of inputs (land, capital, labor, seeds, feed) for the gouramy business and to find out whether the gouramy rearing business was feasible or not feasible to develop in the research area. The method of determining the research area used is purposive. The analytical method used is Break Event Point (BEP) and R/C Ratio. The results showed: Production inputs such as (Land, Capital, Seeds, Labor, Seedlings, Feed) were available and Based on the feasibility analysis, the gouramy rearing business was declared feasible because production volume > Production BEP, Price > BEP Price, and R/C > 1.

Keywords :Feasibility Analysis, Business Feasibility, Gourami.

1. Introduction

Gouramy (*Osphronemus gouramy*) is a type of freshwater fish that is scaly and is usually cultivated in ponds, has a wide body, flattened length, dense flesh, large spines, delicious and savory taste. There are several types of gourami that are commonly kept by fish cultivators in Indonesia, including: gourami soang (goose), gourami bastar and gourami padang. These types are distinguished based on the characteristics possessed by each type, both in color, body size, growth rate, and the number of eggs produced (Sitanggang and Sarwono, 2002).

In fish farming, the role of feasibility studies for agribusiness plays an important role, especially when it is associated with such a large investment. Without a study of the feasibility study consisting of various disciplines of course the business that is developed will not be as optimal as expected. Based on its understanding, feasibility study is an art of assembling, combining and analyzing an overall investment plan on the influencing factors between multi-disciplines, so as to produce the desired output, which is feasible and not feasible for the investment. Thus, a fish farming business must have a feasibility study, both hatchery and enlargement. As an illustration of the feasibility study of fishery agribusiness in this paper is the cultivation of carp (Malawat, 2017).

According to Umar (2005), a business feasibility study is a research on a business plan that not only analyzes whether or not a business is feasible or not, but also when it is operated regularly in order to achieve maximum profit for an indefinite period of time.

A feasibility study is a material for consideration in making a decision, whether to accept or reject a planned business idea/project. The definition of feasible in the feasibility study assessment is the possibility that the business idea / project to be implemented will provide benefits, both in the financial sense and in the sense of social benefits (Ibrahim, 2009).

Bustami and Nurlela (2007: 208) BEP analysis is a method or technique used by a company manager to find out on the volume (amount) of sales and production volumes whether a company in question does not suffer losses and does not make a profit.

Revenue Cost Ratio is a feasibility analysis test with a comparison between total income and total costs incurred. The criteria used in this analysis are if the R/C value > 1 , the business is said to be profitable and feasible to operate, because the amount of income is greater than the amount of costs incurred, and vice versa.

2. Research methods

The determination of the research area was carried out purposively or intentionally, namely in Kota Galuh Village, Perbaungan District, Serdang Bedagai Regency. This is done because Kota Galuh Village, Perbaungan District, Serdang Bedagai Regency is one of the places for cultivating gourami.

The technique of taking samples is not based on random, regional or strata, but based on considerations that focus on certain goals. The number of samples used in this study was 1 fish farmer in the research area.

The data obtained in this study consisted of primary data and secondary data. Primary data were obtained from direct interviews using a questionnaire with gourami farmers. And secondary data were obtained from government agencies, such as the Plantation Office of the North Sumatra Province Government.

To solve problem 1, it was tested using a descriptive method, by observing the extent of the availability of inputs (land, labor, seeds, feed, capital) in the research area. To solve problem 2, it is tested by using Break Event Point (BEP) and R/C Ratio calculations.

3. Results and Discussion

3.1 Availability of Inputs (Land, Capital, Labor, Seeds, and Feed) for Gourami business

a. Land

Make observations in advance of the land and cultivation locations and make sure the location is far from industrial areas, settlements, and free of waste or pollution. Clean the area from rocks and wild plants, the land used for making the smallest pond with a size of about 4 x 6 m and normally 10 x 10 m with a pond depth of about 100 to 150 cm. Drains were also made at the bottom of the pool to make it easier to drain the pool and a small ditch

15 cm deep and 10 cm wide was made around the pool. The cultivation location must have a temperature and water quality according to the gouramy habitat. Gouramy growth is good in areas with a temperature of 25o-28oC. To stabilize the pH in the pond, liming will be carried out using agricultural lime, a good pH for growing gourami is around 7 to 8.

b. Capital

The capital needed in the cultivation of gouramy is land capital, pond capital, feed capital, care and seed capital of gouramy.

c. Labor

Manpower is an important component and plays a direct role in business activities. The highly selected workforce is very influential on the tilapia enlargement business being carried out. The workforce used should be honest, diligent, creative, highly dedicated, and responsible. The use of labor from the family is often applied by cultivators who are just starting a business. The workforce used can also come from the area or location where the business is carried out.

d. Seeds

In the cultivation of gourami enlargement, you must choose seeds that are ready for cultivation, the seeds must also have good quality, such as the following:

- To sow gouramy seeds, it is necessary to prepare about 15-20 fish per meter.
- The water in the pool is filled first until it reaches a height of 100-150 cm.
- Seedlings that are ready for cultivation have a size of about 5 cm.
- Choose seeds with colors that are not pale and not physically disabled or diseased.
- Put the seeds into the pond with bury it with the container first for 15 minutes.
- Open the lid of the seedling container and let the seeds come out by themselves, after that do the maintenance of the seeds by giving them feed in the form of pellets.

e. feed

Feed is all ingredients that can be given and are beneficial for fish and do not cause negative effects on the fish body. The feed given must be of high quality, which contains substances needed by the fish's body in life such as protein, carbohydrates, vitamins, fats, and minerals. Feed itself is a very important commodity for fish. The nutrients contained in the feed are utilized by fish to meet the basic needs of life and fish production.

3.2 Feasibility Analysis of Gourami Raising Business

a. Cost Analysis of Gourami Raising Business in Kota Galuh Village, Perbaungan District, Serdang Berdagai Regency

The amount of PBB costs in the business of growing gourami during the production period (1 year) is Rp. For more details regarding PBB costs, see Table 1.

Table 1. Cost of Land and Building Tax (PBB) for Gourami Enlargement Business during the Production Period (1 Year) in Kota Galuh Village

Sample	Land (m2)	Total PBB Cost (Rp/year)
1	5200	250,000
Total		250,000

The amount of depreciation expense for equipment in the gouramy rearing business during the production period (1 year) is Rp. 341,000 per year. For more details regarding the depreciation costs of tools and equipment can be seen in Table 5.2.

Table 2. Total Cost of Depreciation for Gourami Enlargement Business Equipment during the Production Period (1 Year) in Kota Galuh Village.

No	Equipment Type	Economic Age (Years)	Purchase price	Cost of depreciation	Percentage (%)
1.	Water pump	6	1,500,000	200,000	58.65
2.	Pipe	10	640,000	61,000	17.89
3.	Net	5	170,000	30,000	8.80
4.	Bucket	3	150,000	50,000	14.66
Total			2,310,000	341,000	100

Based on Table 2, it can be seen that the largest percentage of equipment depreciation in the gouramy rearing business is the depreciation cost of water pump equipment, which is Rp. 200,000 with a percentage of 58.65% and the lowest is the depreciation cost of net equipment, which is Rp. 30,000 with a percentage of 8.80% of the total cost of the tool.

In an effort to grow gouramy, the supporting materials needed are seeds, feed, saponin poison and electricity. The cost of supporting materials in the gouramy rearing business during the production period (1 year) is IDR 226,025,000 per year. For more details can be seen in Table 3.

Table 3. Total Supporting Materials for Gourami Enlargement Business during the Production Period (1 Year) in Kota Galuh Village.

No	Type of Supporting Material	Total Cost (Rp/year)	Percentage (%)
1.	Seeds	23,200,000	10.26
2.	feed	194.340.000	85.98
3.	Saponin Poison	85,000	0.04
4.	Electricity	8,400,000	3.72
Total		226,025,000	100

Based on Table 3, it can be seen that the highest percentage of the use of supporting materials

in the gouramy rearing business is the cost of feed, which is Rp. 194,340,000 with a percentage of 85.98%.

Sources of labor in the organization of the gouramy rearing business in Kota Galuh Village use Internal Workers (TKDK) and Outside Family Workers (TKLK). This outpouring of labor from outside and within the family includes activities ranging from seed distribution, maintenance, to harvesting. In calculating labor costs, the Working Person's Day (HOK) is used, where in one effective working day is calculated 8 hours of work. For more details regarding the amount of labor costs inside and outside the family can be seen in Table 4.

Table 4. Total Labor Costs for Gourami Raising Business during the Production Period (1 Year) in Galuh . Kota Village

No	Type of activity	Total Cost (Rp/year)	Percentage (%)
1.	Spreading Seeds	60,000	0.40
2.	Maintenance	14,600,000	97.99
3.	Harvest	240,000	1.61
Total		14,900,000	100

From the descriptions of these costs, the variable cost of the gouramy rearing business during the production period (1 year) in Kota Galuh Village is Rp. 14,900,000 per year. For more details on this variable cost can be seen in Table 5.

Table 5. Total Variable Costs for Gourami Raising Business during the Production Period (1 Year) in Kota Galuh Village).

No	Cost Description	Total Cost (Rp/year)	Percentage (%)
1.	Supporting Material	226,025,000	93.82
2.	Labor	14,900,000	6.18
Total		240,925,000	100

Based on Table 5, it can be seen that the largest percentage of the variable cost components in the gouramy rearing business is the cost of supporting materials, which is 93.82% and the rest is labor costs, which is 6.18%.

Total cost is the result of the sum of fixed costs and variable costs. This analysis is used to determine the total costs incurred by gouramy farmers during the production period (1 year) in Kota Galuh Village. The total cost incurred by farmers in the gouramy rearing business during the production period (1 year) in Kota Galuh Village is Rp. 241,516,000 per year. For more details regarding the total cost of the gouramy rearing business, see Table 6.

Table 6. Total Cost of Gourami Raising Business during the Production Period (1 Year) in Kota Galuh Village.

No	Cost Description	Total Cost (Rp/year)	Percentage (%)
1.	Fixed cost	591,000	0.24
2.	Variable Cost	240,925,000	99.76

Total	241.516.000	100
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Based on Table 5.7, it can be seen that the total cost of the gouramy rearing business during the production period (1 year) in Kota Galuh Village is dominated by variable costs, namely 99.76% and the remaining fixed costs are 0.24%.

3.3 Income Analysis

a. Total Revenue (Total Return)

Total revenue (Total Return) is the multiplication between the production of gouramy obtained by farmers and the selling price of gouramy during this research. This analysis is used to determine the total revenue from the gouramy business during the production period (1 year) in Kota Galuh Village. The production of gouramy obtained by farmers during the production period (1 year) is 14,500 kg per year, where the prevailing price at the time of the study is Rp. 30,000 per kg, so the revenue from the enlargement of gouramy is Rp. 435,000,000 per year.

Table 7. Revenue from Gourami Raising Business during the Production Period (1 Year) in Kota Galuh Village

No.	Gourami Production (Kg)	Price/Kg	Reception
1.	14,500	30,000	435,000,000
Total	14,500	30,000	435,000,000

b. Income

Income is the amount of income that gouramy farmers get from the business they run. Can be seen in Table 8.

Table 8. Total Income of Gourami Raising Business during the Production Period (1 Year) in Kota Galuh Village.

No	Cost Description	Total Cost (Rp)
1.	Admission (TR)	435,000,000
2.	Total Cost (TC)	241.516.000
	Total income	193,484,000

Based on Table 8, it can be seen that in the gouramy business during the production period (1 year) in Kota Galuh Village, the revenue obtained by gouramy farmers is Rp. 435,000,000 per year and the total cost incurred by gouramy farmers is Rp. 241,516,000. per year while the income earned by gourami farmers in Kota Galuh Village is Rp. 193,484,000 per year.

3.4 Feasibility Analysis

To assess a gouramy rearing business in order to obtain a basic benchmark for financial feasibility, an analytical method has been developed with certain criteria. Thus, the financial feasibility criteria is a tool for whether a business being carried out is feasible or not. The

analysis of the feasibility of the gouramy business being carried out is certainly very helpful for the gouramy farmers to continue their business.

a. BEP Production Volume

The results showed that the production volume was 8,050 Kg, where the production was greater than the BEP production volume ($14,500 > 8050$) then the fish rearing business was declared feasible.

b. BEP Production Price

The results showed that the production price was Rp. 16,656 where the price of gouramy was greater than the BEP of the production price (Rp. 30,000 > Rp. 16,656), so the gouramy rearing business was declared feasible.

c. Feasibility Analysis with R/C Ratio

From the results of data processing on the gouramy rearing business during the production period (1 year) in Kota Galuh Village, it shows that the R/C ratio value obtained by gouramy farmers is 1.80, where $R/C > 1$ ($1.80 > 1$) means the effort is feasible.

4. Conclusion

Production inputs such as (Land, Capital, Seedling, Labor, Seedling, Feed) are available in the research area. Based on the feasibility analysis, the gouramy rearing business was declared feasible because the production volume > BEP Production, Price > BEP Price, and $R/C > 1$.

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