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Profitability In Fish Breeding Business: A Case Study Of As-Syifa Pond Fisheries Business

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A R T I C L E I N F O

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ABSTRACT

As-Syifa Pond Fishery Business is located in Banjar Regency. It is engaged in a fish hatchery to help meet the needs of fish seed in South Kalimantan, which so far relies mainly on fish seed from the island of Java. This study aims to examine the profitability of a fish hatchery business in more depth. The research method used is a case study on the As-Syifa Pond fishery business. The data collected includes primary data and secondary data. The data obtained were then processed and analyzed descriptively, qualitatively, and descriptively quantitatively. The analysis used to answer the profitability of the fish hatchery business is Profit analysis, Revenue Cost Ratio (R/C) analysis, Break-Even Point (BEP) analysis, and Payback Period (PP) analysis. The results showed that the fish hatchery business in the As-Syifa Pond Fisheries Business was profitable and feasible to develop, so this business could be a model for other fish farmers to do fish hatchery business, and this business can also increase income and welfare for the community.

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1. Introduction

Aquaculture business is an activity that has a processor series in its implementation, starting from maintaining fish seeds, raising existing seeds, breeding to marketing the results of the cultivation production itself that can be done individually or in groups to get a profit.

Banjar Regency is one of the central fish farming areas in South Kalimantan, with various media for cultivation, such as soil ponds, cement ponds, tarpaulin ponds, cages, floating net cages, and other media. The primary fish farming production commodities in Banjar Regency are catfish (patin), nile tilapia, goldfish, catfish (lele), pomfret fish, and other fish. Aquaculture fish production in Banjar Regency in 2018 - 2021 is presented in Table 1.

TABLE 1.
AQUACULTURE FISH PRODUCTION IN BANJAR REGENCY IN 2018 – 2021 (TON)

Types of Fish	2018	2019	2020	2021
Nile tilapia	14 598,78	14 290,37	14 377,15	11 154,40
Catfish (patin)	37 795,48	39 874,89	33 717,8	26 599,70
Catfish (lele)	3 397,44	3 567,31	2 221,5	1 208,90
Gold Fish	1 338,86	1 354,65	1 052,9	1 271,50
Pomfret fish/other	3 739,79	3 926,78	1 746,5	1 304,40
Total	**60 870,36**	**58 015,49**	**53 115,9**	**41 538,90**

Source: Central Statistics Agency of Banjar Regency, 2022

Based on Tabel 1, there has been a decrease in the production of various types of fish commodities in the last four years and what drastically happened was a decrease in production from 2020 to 2021 by 21.79%. This decrease occurred due to a significant flood in 2021 in Banjar Regency and resulted in the number of damaged fish farming facilities and lost aquaculture fish. In addition, the decline in production that occurred over the past four years is due to the lack of cultivation production factors in the form of fish seeds, most of which still have to be imported from hatchery centers on Java Island.

Aquaculture development cannot be separated from the incubator of superior types. The hatchery is a starting point in the development of aquaculture because it is the key to the success of the aquaculture business. Good seed quality will guarantee good production results as well. The availability of good seeds in terms of number, quality, and sustainability must be guaranteed so that the cultivation development business can run well. Hatchery efforts are still a limiting factor in aquaculture development in Indonesia for specific organisms. Therefore, hatchery efforts are necessary (Afriani, 2016).

The fish hatchery business is one form of farming and is a link to the fish enlargement business in its function as a seed provider for magnifying farmers (Susanti & Arina, 2020). The fish hatchery business is an activity to breed fish effectively and efficiently to produce seed production that has better quality and quantity (Angin, 2013). Hatchery activities aim to obtain seeds continuously that meet market demands to generate economic benefits (Ramadhan & Sari, 2018). Without a seeding, other sub-systems will not be able to run because the activities of distribution and enlargement require seeds that are the product of hatchery activities (Mantau et al., 2004). The seed enlargement process also requires good handling so that the resulting seeds can grow optimally to meet sales standards (Pomuri et al., 2020).

The problem of decreasing fishery production in Banjar Regency due to the lack of seed stocks has begun to be overcome by fish borers in this area, one of which is the As-Syifa Pond business which specializes in hatchery efforts of various types of fish. The fish hatchery business in the As-Syifa Pond business has reasonably good prospects in terms of market prospects and farmers' income. Therefore, it is considered necessary to conduct a case study that examines the Profitability of the fish hatchery business in more depth.

Profitability or commonly referred to as rentability, is the ability of a company to make profits during a specific period (Hermina & Suprianto, 2014), while according to Hermuningsih (2014), Profitability is the ability of a company in obtaining profits with sales relations, its capital or total assets. Sutrisno (2003) stated that Profitability is the ability of management to manage the company to make a profit; the more effective management, the company will increase profits and vice versa. Meanwhile, according to Harahap & Sofyan (2010), Profitability is the ability of businesses to achieve profit goals by carrying out activities. Sales, capital, cash, number of branches, number of employees, etc.

Profit or increased Profitability will show the adequate performance of a company that has been managed well (Sukmayanti & Triaryati, 2019), Profitability in the company will make the company's survival in the long run and give a positive signal to investors to invest. With the known level of Profitability in the As-Syifa Pond business, it is expected to attract investors and fisheries entrepreneurs who invest in fish hatchery businesses in Banjar Regency to overcome the difficulties of fish farmers in obtaining fish seeds for their business.

2. Methods

The research method used is a case study on the As-Syifa Pond Fisheries Business in Banjar Regency, South Kalimantan Province. A case study is a form of research conducted by studying a particular case on a limited object (Rahardjo, 2017). The data collected includes primary data and secondary data. Primary data were obtained through direct observation and interviews with respondents through questionnaires. Direct observation is intended to complete the data obtained from the list of questions. At the same time, secondary data is data taken from the agency with this

research. The data obtained were then processed and analyzed descriptively, qualitatively, and descriptively quantitatively. Qualitative descriptive analysis is data processing carried out through logical considerations with systematic writing discussions, and this data is not in the form of numbers. In contrast, quantitative descriptive analysis is data in the form of numbers or data processing using calculations. The analysis used to answer the Profitability of fish hatchery business is Profit analysis, Revenue Cost Ratio (R/C) analysis, Break-Even Point (BEP) analysis, and Payback Period (PP) analysis (Alawode & Ajagbe, 2020).

3. Results and Analysis

3.1. Technical Aspects of Hatchery Business Activities

a. Pre-Production

Hatchery activities carried out in the As-Syifa Pond consist of preparing parent spawning media, maintenance of brood, spawning, hatching of eggs, and larvae and seeds. At the same time, the pre-production activity of seed larva enlargement is the maintenance of larvae by providing feed to become fish seeds ready for harvest.

Activities carried out at the time of pre-production consist of hatchery and enlargement of fish larvae to become fish seeds ready to be marketed. The attempted products are catfish (patin), Nile tilapia, goldfish, graskap, pomfret, snakehead fish, catfish (lele), and carp. The length of time it takes to carry out hatchery is about 2 - 3 weeks because spawning of fish will take place on the 7th day since the brood is stocked, the hardening process usually lasts about a week, and the larvae can be moved when they are 5-7 days old. While the length of time the enlargement of the larvae to become the size of the seeds is about 1-1.5 months. The frequency of feeding on fish larvae and seeds is once a day, from 07.00-08.00 With, while the type of feed used is natural feed in the form of bloodworms and silkworms, then for seed enlargement at the age of more than ten days given artificial feed. This is in line with (Agustina et al., 2015). The artificial feed at the age of 15-35 days produces the best survival and growth.

Although it has not been applied perfectly, the technology used is practical biosecurity. Biosecurity is all actions that are the first defense for outbreak control and are carried out to prevent all possible transmission/contact with infected livestock. The chain of the spread of the disease can be minimized (Ministry of Agriculture, 2006). There are three main components of biosecurity: animal isolation, animal traffic control, and sanitation. The owner in the seeding process carries out this biosecurity technology to reduce the possibility of crop failure due to fish disease outbreaks.

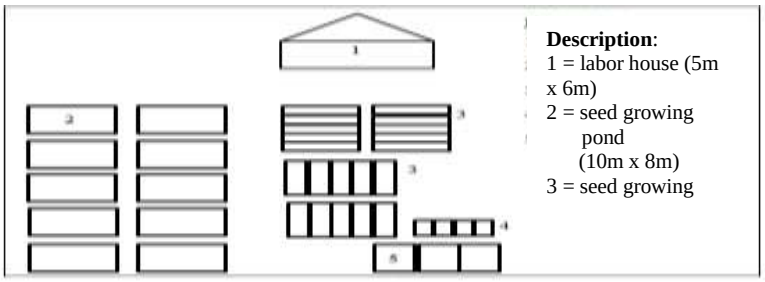

Figure 1. The Layout of Infrastructure for As-Syifa Pond Production

In Figure 1, the layout of the facilities and infrastructure of the As-Syifa Pond fishery business is divided into five parts, namely the first part plan, there is a 5x6m labor house that serves as a guardhouse at the hatchery site. Then the second part of the plan is a 10x8m earthen pond that serves as a place for enlargement of the larvae of pomfret fish seeds, patin, and tilapia. The third part of the plan is a 3x6m tarpaulin pond that serves as a place for catfish seed enlargement. Then the fourth part of the floor plan is a 2x2m pond that serves as a spawning ground for fish, and the last is the fifth part of the floor plan is a 3x6m pond that serves as a parent pond. As for the ponds that exist at the pre-

production site, seed enlargement ponds are always given a net or rope on it that serves to avoid bird or bat attacks at night against fish seeds. In addition, tarpaulin ponds are also given a roof from a para net that reduces hot temperatures during the day.

Labor management is by way of the division of tasks by the type of fish that will be spawned. So the workers only focus on their respective fields of duty, for example, hatchery catfish. The tasks carried out range from preparing spawning media to the maintenance of seed larvae that are ready for harvest. Then the acquisition of supplies is made by controlling the demand with the number of seeds available. Still, if the fish seed stock in the As-Syifa pond is empty, consumers demand that fish seeds be taken outside the fostered partners. As for what is meant by the fostering partners, in this case, fish hatchery farmers who have cooperated and been fostered by the As-Syifa pond so that their harvested seeds must be marketed through the As-Syifa Pond fishery business as a distributor of fish seeds in South Kalimantan. The source of input from As-Syifa pond production is the incubator in As-Syifa ponds and Foster Partners located around the Banjarbaru area and Banjar Regency. Then the way of managing infrastructure is carried out by checking periodically, namely after the harvest period and repairs in case of damage. The infrastructure renewal will be carried out when the economic age has run out.

The obstacle that generally occurs in the pre-production process is the lack of natural feedstocks in the form of silkworms and bloodworms, making it challenging to feed some types of fish seeds. In addition, natural factors in the form of weather and the influence of the seasons also affect crop yields. As for the larvae of catfish (patin) seeds and tilapia sent directly from Jampang, Bogor then Jati Asih, Bekasi and Bantul, Yogyakarta.

b. Production

Production activities are carried out every day from Monday to Sunday with regular working hours from 08.00 – 17.00 WITA. The production activities in marketing As-Syifa pond seeds namely starting from harvesting fish seeds at hatchery locations or pre-production locations, then seeds are sorted based on the size category to be marketed. After sorting the size, it will be done by sampling the number of fish seeds before packing; how to do sampling in the As-Syifa Pond first by calculating the number of fish manually; then, if the size of the fish is evenly distributed, it will be weighed in weight to facilitate further calculations. The number of these fish will adjust the size of the seeds and the delivery distance, but in general, the number of seeds per bag is as much as 500 heads, 800 heads, or 1000 heads. After sampling is completed, the fish will be put in a small bucket, then given probiotics and salts that kill diseases caused by fungi and bacteria. Then the fish is put in a plastic bag and given oxygen. This is the process of packaging seeds or packing. The last stage is that the fish are ready to be distributed to the destination location.

The attempted products are Catfish (lele), Tilapia, Gold fish, Graskap, Pomfret, Snakehead fish, Catfish (Patin), and Carp fish seeds. Labor management in the production process is divided into two parts: the head of work and members. The task of the head of work is to lead the entire production process and become the right hand of the business owner, while the task of the members is to carry out the entire series of production activities. Production activities take place every day according to the working hours; this is because the harvest of fish seeds is carried out alternately according to the type of fish seeds produced in the As-Syifa Pond Fisheries Business. The amount of production in a month is as much as 30 times, so the amount of production per year is approximately 360 times.

In the production process, there are no significant obstacles. Inventory management during the production period is adjusted to inventory management in the pre-production period, which is done by controlling demand with the number of seeds available. Still, if the stock of fish seeds is empty in the As-Syifa pond, consumers demand that fish seed harvesting be carried out outside the fostered partners. The management of infrastructure facilities is carried out by checking periodically, namely after the harvest period and repairs in case of damage. The infrastructure renewal will be carried out when the economic age has run out.

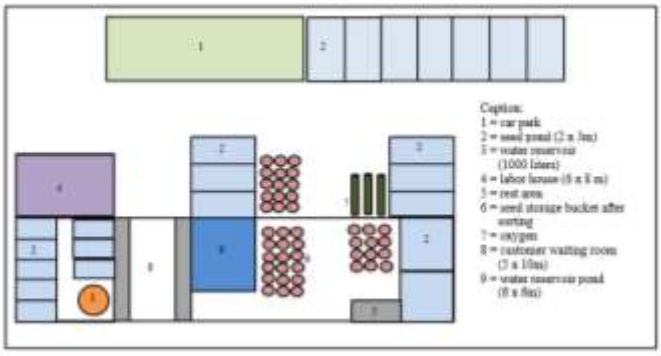

Figure 2. The layout of the As-Syifa Pond Production Infrastructure

In Figure 2, the infrastructure layout for the production of the As-Syifa Pond fishery business is divided into several parts. The first part of the plan is the car park's location for consumers and becomes a parking location for facilities that will carry out the process of distributing fish seeds. Then the second part of the plan is a fish seed holding pond made of fiber measuring 2x3m; each pond is equipped with an aerator that serves as an additional oxygen producer. The third-floor plan is a 100-liter water reservoir that serves as a water reservoir in the fish seed storage room. Next is the fourth section of the floor plan, a labor house measuring 6x8 m; this house consists of two levels inhabited by two heads of the family. A fifth-floor plan is a resting place measuring 1x1.5m. The sixth part of the plan is the arrangement of buckets – buckets of fish seed shelters after going through the sorting and sampling stage that will enter the packaging stage.

The seventh part of the plan is an oxygen storage place that will be used when packaging fish seeds ready to be distributed; the amount of oxygen available in the As-Syifa Pond fishery business is as many as 50 pieces. In contrast, the number of buckets owned in the As-Syifa Pond fishery business is as many as 100 pieces. The eighth-floor plan is a waiting room for consumers covering an area of 5x10m with elongated seating. Furthermore, the ninth-floor plan is a water reservoir pond with an area of 6x6m with an area of approximately 1 m which is equipped with a water machine to make it easier to fill the water into the bucket.

c. Post Production

Post-production activities are scheduled every day, namely from Monday to Sunday after the production activity is completed. The activities carried out in the post-production stage are cleaning the pond, filling water into the pond, and giving chalk and salt into the pond, which aims to stabilize the pH of the pond water before inserting fish larvae. The type of product produced is a pond with a stable pH level. In the post-production stage, no technology is used; all its activities are still carried out manually by human labor.

In the post-production process in the As-Syifa pond, there are no obstacles. Post-production labor management is carried out directly by the head of work and members of production activities. Inventory management in the post-production stage is carried out with the holding of lime and salt supplies used after the pond is finished cleaning. The management of infrastructure facilities is carried out by checking periodically, namely after the harvest period and repairs in case of damage. The infrastructure renewal will be carried out when the economic age has run out.

3.2. Business Financing

Investment costs are costs whose usefulness period can last relatively long. Usually, the time for investment costs is set at more than one year. The one-year limit is set based on the habit of planning and realizing the budget for one year (Rachadian et al., 2013). The cost of investing in fish hatcheries in the As-Syifa Pond Fisheries Business is presented in Table 2.

Table 2.
INVESTMENT COSTS OF AS-SYIFA POND FISHERIES BUSINESS

Number	Cost Types	Economic Age (year)	Volume	Unit Price (IDR)	Amount (IDR)	Amount of Depreciation (IDR
1	Soil		90000 m2	100,000	9,000,000,000	
2	Earth Pond	30	16 pieces	5,000,000	80,000,000	
3	Tarpaulin pond	10	43 pieces	4,500,000	193,500,000	
4	Parent Pond	10	4 pieces	2,500,000	10,000,000	
5	Round Fiber Pond	25	34 pieces	7,000,000	238,000,000	
6	Square Fiber Pond	25	34 pieces	10,000,000	340,000,000	
7	Concrete Pond	20	33 pieces	15,000,000	495,000,000	
8	Production House	30	1 pieces	80,000,000	80,000,000	2,666,667
9	GuardHouse	30	11 pieces	40,000,000	440,000,000	14,666,667
10	Airator	20	1 package	20,000,000	20,000,000	1,000,000
11	Water Pump Machine	20	15 pieces	20,000,000	300,000,000	15,000,000
12	Aqueduct Pipe	20	1 package	70,000,000	70,000,000	3,500,000
13	Sort Basket	5	8 pieces	75,000	600,000	120,000
14	Seed Reservoir Basin	3	100 pieces	60,000	6,000,000	2,000,000
15	Oxygen Tube	10	50 pieces	1,800,000	90,000,000	9,000,000
16	Nets/Gauze	5	20 pieces	500,000	10,000,000	2,000,000
17	Refrigerator	10	4 pieces	7,500,000	30,000,000	3,000,000
18	Electricity Flow	10	1package	3,000,000	3,000,000	300,000
19	Operational Car	6	6 pieces	200,000,000	1,200,000,000	200,000,000
20	Catfish	2	600 heads	60,000	36,000,000	18,000,000
21	Nile Tilapia	2	400 heads	30,000	12,000,000	6,000,000
22	Graskap	2	100 heads	70,000	7,000,000	3,500,000
23	Pomfret	2	500 heads	40,000	20,000,000	10,000,000
24	Gold fish	2	2000 heads	60,000	120,000,000	60,000,000
25	Headsnake fish and Climbing perch	2	1000 heads	120,000	120,000,000	60,000,000
TOTAL					**12,621,100,000**	**431,640,000**

Source: Primary Data Processed

Variable costs are costs whose total amount changes proportionally (propositionally) with changes in the volume of activities. The higher the volume of activities or activities, the higher the total variable cost. The lower the activities volume, the proportionally lower the total variable cost (Mulyadi, 2015). The variable cost of fish hatchery business in The As-Syifa Pond Fisheries Business is presented in Table 3

Table 3.
VARIABLE COST OF AS-SYIFA POND FISHERIES BUSINESS

Number	Cost Types	Volume	Unit Price (IDR)	Total Per Production (IDR)	Total/Year (IDR)
1	Feed	4,000 kg	19,000	76,000,000	912,000,000
2	Gurame Seed Larvae	100,000 heads	1,160	116,000,000	1,392,000,000
3	Patin Seed Larvae	3,000,000 heads	160	480,000,000	5,760,000,000
4	Oxygen Recharge	50 tubes	60,500	3,025,000	36,300,000
5	Plastic Packing	3,000	25,000	75,000,000	75,000,000
6	Drugs	1 package	10,000,000	10,000,000	10,000,000
TOTAL				**760,025,000**	**8,185,300,000**

A fixed cost is a cost whose total amount remains constant, not affected by changes in the volume of activities or activities to a certain degree. Fixed costs per unit are proportionally proportional to activity volume or capacity changes. The higher the level of activity, the lower the fixed cost per unit. The lower the level of activity, the higher the fixed cost per unit (Mulyadi, 2015). The fixed cost of the fish hatchery business in The As-Syifa Pond Fisheries Business is presented in Table 4.

Table 4.
FIXED COST OF AS-SYIFA POND FISHERIES BUSINESS

Number	Cost Types	Vol	Unit Price Per Month (IDR)	Unit Price Per Year (IDR)	Amount (IDR)
1	Ground Rent	2	10,000,000	10,000,000	20,000,000
2	Pond Rental	164	400,000	400,000	65,600,000
3	Pond Care	164	300,000	1,200,000	196,800,000
4	Car Maintenance	6	1,000,000	12,000,000	72,000,000
5	Other Facility Maintenance	1	5,000,000	5,000,000	5,000,000
6	Electricity	1	6,000,000	72,000,000	72,000,000
7	Fixed Labor Salary	8	3,000,000	36,000,000	288,000,000
8	Non-Fixed Labor Salary	5	1,500,000	9,000,000	45,000,000
9	Depreciation Costs	1	431,640,000	431,640,000	431,640,000
Total					**1,196,040,000**

3.3. Revenue

Revenue is the result received by an individual or group for economic activities carried out in the form of goods or services. The total receipt is a function of the number of goods and the result of times the number of goods at the price of goods per unit (Kabai, 2015). The production and revenue of fish hatchery efforts in the As-Syifa Pond Fisheries Business are presented in Table 5.

Table 5.
REVENUE OF AS-SYIFA POND FISHERIES BUSINESS

Number	Production	Size	Volume	Unit Price (IDR)	Total/Production (IDR)	Total/Year (IDR)
1	Nile tilapia	3 - 5 cm	100,000	80	8,000,000	96,000,000
		4 - 6 cm	150,000	110	16,500,000	198,000,000
		5 - 7 cm	150,000	140	21,000,000	252,000,000
2	Catfish (patin)	3/4'	300,000	140	42,000,000	504,000,000
		1'	500,000	180	90,000,000	1,080,000,000
		1,5'	500,000	250	125,000,000	1,500,000,000
		2'	600,000	300	180,000,000	2,160,000,000
		3'	550,000	375	206,250,000	2,475,000,000
		4'	550,000	400	220,000,000	2,640,000,000
3	Catfish (lele)	4'	150,000	150	22,500,000	270,000,000
		5'	200,000	180	36,000,000	432,000,000
		6'	250,000	225	56,250,000	675,000,000
4	Pomfred	3 – 5 cm	100,000	180	18,000,000	216,000,000
		4–6cm	150,000	200	30,000,000	360,000,000
		5 – 7 cm	150,000	225	33,750,000	405,000,000
		6 – 8 cm	100,000	260	26,000,000	312,000,000
		9–12 cm	100,000	300	30,000,000	360,000,000
5	Gold fish	3 – 5 cm	50,000	180	9,000,000	108,000,000
		4 – 6 cm	75,000	225	16,875,000	202,500,000
		5 – 7 cm	75,000	300	22,500,000	270,000,000
6	Snakehead fish	4'	30,000	700	21,000,000	252,000,000
7	Climbing perch (Papuyu)	3 – 4 cm	100,000	175	17,500,000	210,000,000
		3 – 5 cm	100,000	200	20,000,000	240,000,000
		4 – 6 cm	100,000	250	25,000,000	300,000,000
		5 – 7 cm	100,000	300	30,000,000	360,000,000
8	Graskap	3'	50,000	300	15,000,000	180,000,000
		4'	50,000	500	25,000,000	300,000,000
		6'	30,000	700	21,000,000	252,000,000
		8'	20,000	1,000	20,000,000	240,000,000
9	Carp	5 – 7 cm	100,000	1,750	175,000,000	2,100,000,000
		TOTAL			**1,579,125,000**	**18,949,500,000**

3.4. Profitability Analysis

carried out by Okpeke et al. (2015), which shows that the fish farming business in Warri South Local Government Area of Delta State, Nigeria is profitable. Furthermore, profitability assessments were also carried out by Awoyemi & Ajiboye (2011) on fish farming among women in Ogun state Nigeria, Alawode & Ajagbe (2020) on small-scale catfish production in South West Nigeria, Ajagbe & Ojo-Fakuade (2019) in catfish farming businesses in Ibadan metropolis, Oyo State, Nigeria, and all research results show that the fish farming business is profitable. With the same analysis tool on profitability assessment in fisheries business in various previous studies, the analysis of the As-Syifa Pond Fisheries Business in one year showed a profit of IDR 9,568,160,000. The calculation of profits based on the type of product is taught in Table 6

Table 6.
FISH HATCHERY PROFITS BY TYPE OF FISH

Production	Size	Admission (IDR)	Operating Expenses (IDR)	Advantages (IDR)	R/C	BEP Price	Desciption
Nile tilapia	3 - 5 cm	96,000,000	73,042,063	22,957,937	1.31	60.87	Profitable
	4 - 6 cm	198,000,000	100,432,837	97,567,163	1.97	55.80	Profitable
	5 - 7 cm	252,000,000	127,823,611	124,176,389	1.97	71.01	Profitable
Catfish (patin)	3/4'	504,000,000	127,823,611	376,176,389	3.94	35.51	Profitable
	1'	1,080,000,000	164,344,642	915,655,358	6.57	27.39	Profitable
	1.5'	1,500,000,000	228,256,448	1,271,743,552	6.57	38.04	Profitable
	2'	2,160,000,000	273,907,737	1,886,092,263	7.89	38.04	Profitable
	3'	2,475,000,000	342,384,672	2,132,615,328	7.23	51.88	Profitable
	4'	2,640,000,000	365,210,316	2,274,789,684	7.23	55.33	Profitable
Catfish (lele)	4'	270,000,000	136,953,869	133,046,131	1.97	76.09	Profitable
	5'	432,000,000	164,344,642	267,655,358	2.63	68.48	Profitable
	6'	675,000,000	205,430,803	469,569,197	3.29	68.48	Profitable
Pomfret fish	3 – 5 cm	216,000,000	164,344,642	51,655,358	1.31	136.95	Profitable
	4 – 6 cm	360,000,000	182,605,158	177,394,842	1.97	101.45	Profitable
	5 – 7 cm	405,000,000	205,430,803	199,569,197	1.97	114.13	Profitable
	6 – 8 cm	312,000,000	237,386,706	74,613,294	1.31	197.82	Profitable
	9–12 cm	360,000,000	273,907,737	86,092,263	1.31	228.26	Profitable
Gold fish	3 – 5 cm	108,000,000	164,344,642	(56,344,642)	0.66	273.91	Lose
	4 – 6 cm	202,500,000	205,430,803	(2,930,803)	0.99	228.26	Lose
	5 – 7 cm	270,000,000	273,907,737	(3,907,737)	0.99	304.34	Lose
Snakehead	4'	252,000,000	639,118,054	(387,118,054)	0.39	1,775,33	Lose
Climbing perch (Papuyu)	3 – 4 cm	210,000,000	159,779,513	50,220,487	1.31	133.15	Profitable
	3 – 5 cm	240,000,000	182,605,158	57,394,842	1.31	152.17	Profitable
	4 – 6 cm	300,000,000	228,256,448	71,743,552	1.31	190.21	Profitable
	5 – 7 cm	360,000,000	273,907,737	86,092,263	1.31	228.26	Profitable
Graskap	3'	180,000,000	273,907,737	(93,907,737)	0.66	456.51	Lose
	4'	300,000,000	456,512,895	(156,512,895)	0.66	760.85	Lose
	6'	252,000,000	639,118,054	(387,118,054)	0.39	1,775,33	Lose
	8'	240,000,000	913,025,791	(673,025,791)	0.26	3,804,27	Lose
Carp	5 – 7 cm	2,100,000,000	1,597,795,134	502,204,866	1.31	1,331,50	Profitable
Total Profit (IDR)				**9,568,160,000**			
R/C					**2,02**		
Payback Period (year)							**1,3**

Based on Table 6, the total profit of Nile tilapia seed products is IDR 244,701,489. The total profit of Catfish (patin) seed products is IDR 8,857,072,574, the total profit of Catfish (lele) fish seeds is IDR 870,270,686, and the total profit of Pomfret fish seeds is IDR 589,324,954, while in Goldfish seeds and Snakehead fish seeds suffered losses of IDR 63,183,182 and IDR 387,118,054. Climbing Perch (Papuyu) fish seeds benefited from IDR 265,451,144 but suffered another loss in Graskap fish seed sales of 1,310,564,477. The last type of fish sales is Carp fish which gets a profit of IDR 502,204,866; based on the explanation above, it can be concluded that the most significant profit in the As-Syifa Pond fishery business is obtained from the sale of Catfish (patin) seeds.

Break-Even Point (BEP) is an analysis to determine and find the number of goods or services that must be sold to consumers at a specific price to cover the costs incurred and get profits (Asnidar & Asrida, 2017); business is said to be profitable if BEP price < selling price, It is said to break even if the BEP price = selling price and is said to be unfavorable if the BEP price > the selling price. Based on Table 6, it can be seen that the break event point (BEP) value of each seed commodity produced varies between those whose BEP value is below the selling price of fish seeds (profitable) and some whose BEP value is above the selling price (loss).

Revenue Cost Ratio (R/C) analysis is a comparison between total receipts and total costs (Soekartawi, 2006) to see the relative advantages of a business in one year to the costs that have been used in the fishery business activities of As-Syifa Ponds then used Revenue Cost Ratio (R / C) analysis, where a business is said to be feasible if R / C is more than 1, The average R/C value obtained from all types of fish seeds obtained is 2.02 or greater than 1 (R/C>1). However, some commodities of fish seed production types whose value is R/C is less than 1.

Based on the analysis results, several types of fish seeds do not produce profits, such as snakehead fish, goldfish, and graskap. This happens because the production of seeds of these three types of fish is still below the amount of production that is expected to be able to cover the costs incurred. Low production due to the lack of knowledge of fish farmers in technically fixing these three types of fish. However, this unprofitable type of fish is deliberately still produced to supplement the current demand for seed distribution to some regions. The losses experienced can be covered by the profits generated by producing other fish seeds.

Furthermore, a payback period (PP) analysis is also performed. Payback Period analysis is the period of return on the initial cost of a type of business (Rachadian et al., 2013). The analysis results showed that the value of the Payback Period was 1.3, which means that all investments invested in fish hatchery efforts in the As-Syifa Pond Fisheries Business returned after 1.3 years.

The results of the analysis conducted showed that the fish hatchery business in the As-Syifa Pond Fisheries Business as a whole is profitable and feasible to be developed so that this business can be a pilot for other fish farmers to be able to carry out fish seeding efforts as an effort to fulfill fish seeds that have been limited to only bringing from Java Island. This business can also increase income and welfare for the community. This is in line with the research results of Mustika et al. (2020), which show that papuyu fish (climbing perch) hatchery efforts in South Kalimantan are profitable. The results of similar research on fish hatchery efforts were also carried out by Lubis et al. (2021) that tilapia hatchery efforts in BBI UPTD Freshwater Cultivation of Jantho Baru Aceh Besar Village, the results of Pomuri et al. (2020) research that the goldfish hatchery business in the Sharia Independent People's Fisheries Business (UPR) in Motoboi Kecil Village, Kotamobagu City of North Sulawesi Province and the results of Susanti & Arina (2020) that the tilapia seeding business in Sleman Regency is profitable to run.

4. Conclusion

Although there are losses in the production of several types of fish from hatcheries, overall, the fish hatchery business at the As-Syifa Pond Fisheries Business is profitable and feasible to be developed, so this business can be a model for other fish farmers to be able to carry out fish hatchery business as an effort to fulfill fish seeds. So far has been limited to only bringing in from Java, and this business can also increase income and welfare for the community.

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