ANALISIS STUDI KELAYAKAN USAHA PEMBESARAN UDANG VANAMAE DIKABUPATEN SERANG, BANTEN

Benedicta Evienia P[1)] Angelika Natarina[2)]

[1,2)] Program Studi Manajemen, Fakultas Ekonomi dan Bisnis, Universitas Katolik Indonesia Atma Jaya, Jl. Jend. Sudirman No.51, Kota Jakarta Selatan, Daerah Khusus Ibukota Jakarta 12930

ABSTRACT

The development of the aquaculture and shrimp cultivation sector, especially in Indonesia, has broad market potential and continues to grow yearly. This business feasibility analysis was carried out to ensure that the "Linduk Cultivation Pond" business was considered feasible for development. The research method used is qualitative, which is analyzed descriptively based on interviews conducted with owners and operators of Linduk cultivation pond businesses. The PESTEL analysis is used to discuss the feasibility of this business while analyzing the financial aspects by assessing the level of business feasibility; short-term analysis calculations are carried out on Net Profit, R/C ratio, Profitability, Break Even Point, and Payback Period.

The research results show that the vanamae shrimp rearing business in the Linduk Cultivation Pond shows broad market potential. Technically, this business is feasible to develop, considering that this business has also implemented intensive cultivation technology. Management and organization are well structured, although the recruitment system must be optimal. Positive economic and social impacts can be seen from contributions to owners, workers, suppliers, local markets, and village communities and environmental impacts with sustainable strategies. Financial analysis shows positive performance with a net profit of IDR 112,734,625, an R/C Ratio of 2.25, and business profitability of 39.55%. Developing a strategy to increase sales is necessary to accelerate business capital turnover. This research can be used as reference material for managers to develop appropriate strategies to continue running this business.

Keywords: Business Feasibility Analysis, Fisheries Cultivation, Short-Term FinancialAnalysis.

ABSTRAK

Perkembangan sektor budidaya perikanan dan budidaya udang, khususnya di Indonesia memiliki potensi pasar yang sangat luas dan terus bertumbuh setiap tahunnya. Analisis kelayakan bisnis ini dilakukan untuk memastikan bahwa usaha "Kolam Budidaya Linduk" dinilai layak, untuk dikembangkan. Metode penelitian yang digunakan dalam penelitian adalah metode kualitatif, yang dianalisis secara deskriptif berdasarkan hasil wawancara yang telah dilakukan kepada pemilik sebagai pelaku usaha kolam budidaya linduk. Analsisi PESTEL digunakan sebagai alat untuk membahas kelayakan usaha ini, sedangkan untuk menganlisis aspek keuangan, dengan menilai tingkat kelayakan usaha maka dilakukan perhitungan analisis jangka pendek pada Net Profit, R/C ratio, Rentabilitas, Break EvenPoint, dan Payback Period.

Hasil penelitian menunjukan usaha pembesaran udang vanamae di Kolam Budidaya Linduk menunjukkan potensi pasar yang luas. Secara teknis, usaha ini layak untuk dikembangkan, mengingat usaha ini juga sudah melakukan penerapan teknologi budidaya yang intensif. Manajemen dan organisasi sudah terstruktur baik, meskipun sistem perekrutan belum optimal. Dampak ekonomi dan sosial positif terlihat dari kontribusi bagi pemilik, pekerja, pemasok, pasar lokal, dan masyarakat desa serta dampak lingkungan dengan strategi berkelanjutan. Analisisfinansial menunjukkan kinerja positif dengan net profit Rp 112.734.625, R/C Ratio 2.25, dan rentabilitas usaha 39,55%. Perlu menyusun strategi peningkatan penjualan untuk mempercepat perputaran

modal usaha. Penelitian ini dapat dijadikan sebagai bahan rujukan bagi pengelola untuk menyusun strategi yang tepat supaya usaha ini terus berjalan.

Kata Kunci: Analisis Kelayakan Usaha, Budidaya Perikanan, Analisis Keuangan Jangka Pendek.

INTRODUCTION

The fisheries sector, particularly aquaculture, significantly contributes to exports, with shrimp being the primary commodity reaching the highest export value. In January- June 2023, Indonesia's fisheries sector exports amounted to approximately 2.8 billion US dollars, where shrimp was the main contributor, reaching an export value of 567 million US dollars (KKP, 2023). To increase shrimp production, the Director General of Aquaculture, TB Haeru Rahayu, targets shrimp production to reach 2 million tons by 2024 (KKP, 2023). This production increase is not only for exports but also to meet domestic consumption, which reached a record high in 2022 (Annur, 2022). One of the government's main focuses is sustainable cultivation programs, especially for vanamae shrimp, a potentially valuable species. Vanamae shrimp, known for its high adaptability, strong survival rates, and broad market share, has contributed to over 36% of Indonesia's fisheries export value (Hanif, 2023).

Previous research conducted at BPPP Bitung is said to be technically, market-wise, and financially feasible. Technical feasibility is met with the appropriate stocking density and adequate infrastructure, while semi-online and direct sales strategies provide broad reach, generating a profit of IDR 66,496,000 with a profit margin of 32.7% and a BCR of

1.32. Another study in offshore floating net cages also demonstrated the financial success of vanamae shrimp cultivation with an NPV of IDR 43,315,360, IRR of 21.47%, and a PBP of 6 months and nine days. Furthermore, a feasibility analysis of vanamae shrimp cultivation at Tambak Pak Boy showed an R/C value of 2.03 and a net profit 6.9 times the production cost. The Linduk Aquaculture Pond, established in 2022, is another shrimp cultivation business specializing in vanamae product sales. Operating as an individual PT, this business has obtained permits issued by the Ministry of Investment/BKPM.

In conclusion, the development of the fisheries and shrimp cultivation sector, particularly in Indonesia, has a vast and continually growing market potential. Previous research indicates that vanamae shrimp cultivation using intensive farming technology in several ponds is feasible and profitable. Therefore, it can be said that vanamaeshrimp cultivation faces high competition. Hence, a business feasibility analysis is conducted to ensure that the "Linduk Aquaculture Pond" is deemed viable, capable of growth, and can sustain itself in a competitive market.

RESEARCH METHOD

This research was conducted in September and October 2023 at "Linduk Aquaculture Pond," Linduk Village, Pontang Subdistrict, Serang Regency, Banten. The selection of the research location was purposive, intentionally chosen based on the consideration that it is a central hub for fisheries cultivation activities encompassing various sub-sectors in recent years. The choice of "Linduk Aquaculture Pond" as the research object was based on the fact that the cultivation pond was newly established and developing its business.

Data collected in this study included both primary and secondary data. Primary data were obtained through observations and interviews. The selection of respondents to obtain primary data in this study used judgment sampling, where respondents were intentionally chosen based on their expertise in the relevant field, in this case, the business owners. Secondary data were obtained from existing sources such as statistical data, books, journals, and research reports.

The data analysis method employed was qualitative descriptive analysis. Qualitative descriptive analysis is a research method used to examine the natural conditions of the object, where the researcher serves as a critical instrument. Data collection techniques were done through triangulation (a combination of methods), and data analysis was inductive/qualitative. The results of qualitative research emphasize meaning rather than generalization (Sugiyono, 2016).

The qualitative descriptive analysis in this study includes explanations of technical and technological aspects of cultivation, market and marketing aspects, business management and human resources, economic, social, and environmental aspects, as well as financial aspects. In the financial aspect, short-term analysis calculations were performed to assess the feasibility of the business, including net profit, R/C ratio, profitability, Break-even Point, and payback period. This research did not conduct long-term analysis with NPV and IRR due to the relatively short business duration.

1. Net Profit

$\prod$ = Total Revenue – Total Cost

Explanation:

$\prod$ = Net Profit

2. Revenue/Cost Ratio

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

Decision-Making Criteria

a. R/C Ratio > 1: The project is profitable and feasible if the Return on Cost (R/C) Ratio is greater than 1.

b. R/C Ratio < 1: If the R/C Ratio is less than 1, it suggests that the project is not profitable and deemed not feasible to proceed.

c. R/C Ratio = 1: If the R/C Ratio equals 1, the project is at the Break-Even Point (BEP), where the total revenue equals total costs. This point represents the balance between costs and revenue; further consideration may be needed to decide whether to proceed.

3. Profitability

$$\text{Profitability} = \frac{\text{Net Profit}}{\text{Working Capital}} \times 100\%$$

4. Break Even Point

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

5. Payback Period

$$\frac{1}{\pi} \text{ X 1 Tahun}$$

Explanation:
I = Investment
= Net Profit

RESULT AND DISCUSSION

General Condition of the Research Location

"Linduk Aquaculture Pond" is a shrimp cultivation business established in 2022 focusing on production. Graduates of the Aquaculture program at the Faculty of Fisheries and Marine Sciences, Bogor Agricultural Institute, founded the pond. The business is structured as an individual Limited Liability Company (PT) and has obtained a business permit issued by the Ministry of Investment/BKPM with the registration number 1412220086104. Situated at Blok Pugas, Linduk Village, Pontang Subdistrict, Serang Regency, Banten, the establishment of "Linduk Aquaculture Pond" is motivated by the potential in the fisheries sector, particularly in Indonesia. The total area of the location is 3 Hectares, with 60% utilized for operational ponds and reservoirs and the remaining 40% allocated for inlet and outlet channels, mess, warehouse, and roads. The business specializes in the production of Vanamae shrimp.

Cultivation Technology, Facilities, and Infrastructure

The cultivation of Vanamae shrimp at Linduk Aquaculture Pond employs intensive cultivation technology with high control, high initial costs, and advanced technological levels. This technology includes probiotics, plankton, nutrient-rich feed, and regular water quality monitoring. The facility consists of 13 ponds, each averaging 1,300 m2, and two reservoirs with a total area of 3,000 m2.

Other facilities involve the procurement of post-larval Vanamae shrimp from suppliers and equipment such as water pumps, water wheels, outlet net doors, anchors, pipes, electrical panel boxes, wastewater storage, and transport boats with ship motors. Production equipment includes buckets, tanks, basins, hoses, scales, hoes, shovels, flashlights, and water wheel repair equipment. The primary feed includes calcium captainfeed, probiotics, and molasses, adjusted to environmental conditions. During the growth phase, shrimp are given medications such as saponin, bestatin, calcium hypochlorite, vitamin C and B complex, and grove supplements to enhance immunity and growth.

The infrastructure supporting this business includes a water supply system from groundseepage for brackish water, accessible access roads, and efficient transportation. Business structures include worker accommodations, feed and equipment storage warehouses, harvest houses, and a PLN substation for electricity supply. All these components contribute to the efficient operational activities of Vanamae shrimp cultivation.

Cultivation Techniques

The Vanamae shrimp cultivation system involves several key stages, starting with container

preparation, such as ponds or tanks, focusing on cleanliness, drying, structure repair, and proper drainage systems. The water preparation stage includes filtration to remove impurities and adjust parameters such as temperature, pH, and salinity while ensuring adequate water circulation. Seeding is done by selecting healthy post-larval shrimp, evenly spreading them in the pond, and providing initial feeds such as phytoplankton or micro feeds as needed.

During the maintenance and growth stages, monitoring shrimp growth and health conditions regularly is crucial, as providing pellets and artificial feeds with the correct nutritional composition, controlling diseases and parasites, and maintaining optimal water quality with necessary replacements. The harvesting process involves measuring the size of shrimp that has reached the standard, using nets or catching tools, and ensuring careful harvesting to avoid damage to the shrimp.

Market Potential and Segmentation

Market Potential Assessment

Market potential assessment is conducted using measurement matrices, namely Total Addressable Market (TAM), Serviceable Addressable Market (SAM), and Serviceable Obtainable Market (SOM). TAM involves the population of Serang Regency and surrounding areas, including individual consumers, distributors, restaurants, and the local market. SAM involves collectors/distributors and the local market in Linduk Village and Pontang Subdistrict. SOM encompasses 20% of collectors and local market traders in Serang Regency, especially in Muara Baru Market.

The business has significant market growth potential, supported by increasing consumer demand, export market expansion, government support, technology, and innovation. Linduk Aquaculture Pond adopts a competitive advantage strategy with a differentiation focus, maintaining product quality and sustainability. Market segmentation analysis indicates a target for local traders and distributors in Serang Regency who are interested in fisheries products, especially shrimp. The positioning strategy emphasizes high quality and sustainability with the slogan "High-Quality Vanamae Shrimp Products from Environmentally Friendly Cultivation." Another positioning highlights contributions to village empowerment and community welfare with the slogan "Local Shrimp Cultivation in Efforts to Empower Villages and Prosper Communities." With this approach, Linduk Aquaculture Pond aims to win an accessible market share, especially in Serang Regency and surrounding areas.

Competitors

Competitive analysis for this business is conducted using the Porter 5 Forces method. According to Porter, competition in a specific industry can be seen as a combination of five forces: industry rivalry, the threat of new entrants, the potential for substitute products, the bargaining power of suppliers, and the bargaining power of buyers (David, 2017). The results of the competitive industry analysis for Linduk Aquaculture Pond in the Vanamae shrimp cultivation business indicate that the level of competition in this industry is estimated to be medium to high. The presence of local and regional competitors may cause high competition.

Buyer bargaining power in this industry is estimated to be low to medium. Although buyers

such as restaurants or collectors/distributors have sufficient negotiation power, increasing competitive advantages, product quality, or business partnerships can reduce buyer negotiation power. Supplier bargaining power in this industry is estimated to be medium to high. Suppliers of feed, seeds, or cultivation equipment can have significant negotiation power, and building good relationships with suppliers and seeking alternative suppliers can reduce supplier power.

The threat of substitutes is estimated to be low to medium. Although consumers tend to switch to substitute products if the price or quality of Vanamae shrimp does not meet expectations, efforts to ensure quality, sustainability, and competitive pricing can reduce the threat of substitutes. The threat of new entrants into this industry is estimated to be medium to high. This threat can arise from technological or new cultivation method innovations, as well as the emergence of new competitors in the industry. Incentive programs, funding injections, and empowerment support through sustainable cultivation education can encourage new entrants. Sustainability and innovation in cultivation are expected to fortify the business against threats from new products or services.

Marketing Strategy

The marketing mix, referring to the combination of four main elements – product, price, promotion, and distribution (Dharmesta & Handoko, 2010, p. 40), includes the following aspects for Vanamae shrimp cultivation at Linduk Aquaculture Pond: product, healthy and fresh Vanamae shrimp with predetermined sizes and complete body parts; price, set through agreements between the business owner and collectors, adjusted to market prices and shrimp quality; distribution, through collectors and companies, utilizing local and traditional markets; promotion, achieved by providing high-quality shrimp to trusted collectors, then sold after reaching a price agreement.

According to Kotler and Keller (2012), marketing is a series of organizational activities that create, communicate, deliver, and provide value to consumers. It also involves managing consumer relationships to benefit both the organization and stakeholders. Linduk Aquaculture Pond lacks a marketing strategy designed to promote Vanamae shrimp products. No marketing communication has been conducted through any media. Currently, marketing is done by approaching local traders and directly contacting individual collectors or companies to offer products and negotiate prices.

Business Management and Human Resources

Business management focuses on three functions: planning (financial, facilities, and marketing), movement (technical processes and daily production supervised by field coordinators), and supervision. The owner is involved through collaboration and remote communication, with direct monitoring once a week to ensure the smooth operation of the business. Operational business management consists of inventory, feed, and water quality monitoring. The following is the business organizational chart with each person's tasks and responsibilities.

Figure 1. Organizational Chart of Linduk Shrimp Farm

Currently, Linduk Aquaculture Pond does not have a specific recruitment system. Field coordinators are recruited based on their status as business owner associates while pursuing education at the university and having competent skills and knowledge in cultivation. The current workforce is informally recruited by selecting diligent individuals with a positive attitude toward fieldwork.

Economic, Social, and Environmental Impact

Linduk Aquaculture Pond economically impacts the owner, workers, feed and support material suppliers, the local market, local government, and community empowerment. The social impacts generated by this business include improved quality of life and job opportunities, increased community solidarity, and enhanced stakeholder participation.

This business can also have positive environmental impacts, such as reducing pressure on natural ecosystems, creating new habitats for marine organisms, and decreasing the capture of wild shrimp. However, potential negative impacts involve increased water and natural resource use, which may lead to local ecosystem degradation, increased water pollution, and the use of chemicals that can harm the environment. Implementing sustainable aquaculture principles, technological innovations, environmental quality monitoring, and collaboration with the government, environmental institutions, and the local community are necessary to address these issues.

Costs

Investment Costs

Table 1. Investment Costs

Pre-Investment Costs			
1	Land Purchase		Rp250,000,000
2	Permits and Correspondence		Rp2,000,000
3	Legal and Consultation Costs		Rp3,000,000
Total			Rp255,000,000
Investment Costs			
Fixed Asset			
1	Construction Layout of Ponds	Rp105,000,000	
2	Warehouse and House	Rp150,000,000	
3	PVC Pipes	Rp65,000,000	
4	Water Wheels	Rp149,600,000	
5	HDPE Plastic	Rp294,000,000	
6	Harvesting Equipment, Nets, and Others	Rp13,750,000	

7	Supporting Machines	Rp13,000,000	
8	Pumps and Supporting Tools	Rp32,600,000	
10	Net Panels & Ponds	Rp39,400,000	
11	Generator Set (Genset)	Rp5,000,000	
12	Transport Boat & Boat Motor	Rp11,000,000	
13	Anco & Supporting Tools	Rp32,000,000	
14	3-Phase Electricity from PLN	Rp80,000,000	
Total			Rp990,350,000
Working Capital			
1	Supporting Equipment	Rp10,000,000	
2	Operating Costs for 3 Months	Rp90,000,000	
3	Inventory Costs for 3 Months	Rp185,000,000	
Total			Rp285,000,000
Total Initial Investment Costs			**Rp1,530,350,000**

Source: Processed Primary Data (2023)

Based on Table 1, it is evident that the investment expenditure amounts to Rp 1,530,350,000, with pre-investment costs totaling Rp 255,000,000, investment costs from Fixed Assets amounting to Rp 990,350,000, and Working Capital costs of Rp 285,000,000.

Financing

Table 2. Total Financing for 1 Cycle

Financing		
No	Fixed Cost Component	Nilai (Rp)
1	Salary	Rp5,000,000
2	Software Subscription	Rp1,070,000
3	Harvesting Costs	Rp1,000,000
Total		Rp7,070,000
No	Variable Cost Component	Nilai (Rp)
1	Shrimp Seeds	Rp6,502,407
2	Feed (Kg)	Rp61,018,807
3	Probiotics	Rp379,675
4	Medicine	Rp8,592,111
5	Employee Wages	Rp1,600,000
6	Transportation	Rp1,080,000
7	Electricity	Rp4,000,000
Total		Rp83,173,000
Total Financing for 6 Months		Rp90,243,000

Source: Processed Primary Data (2023)

Table 2 shows that the total fixed and variable costs incurred for the Kolam Budidaya Linduk business for one cycle with the operation of 3 ponds amount to Rp 90,243,000.

Revenue

Table 3. Total Revenue for 1 Cycle

REVENUE			
No	Product Weight (Kg)	Price	Total (Rp)
Kolam 1			
1	1,537.60	Rp75,100	Rp115,473,760
2	181.7	Rp63,600	Rp11,556,120
3	35	Rp45,060	Rp1,577,100
4	415	Rp62,400	Rp25,896,000
5	163	Rp65,215	Rp10,630,045
6	360	Rp58,000	Rp20,880,000
7	4	Rp60,000	Rp240,000
Kolam 2			
1	217	Rp30,000	Rp6,510,000
Kolam 3			
1	83.60	Rp61,000	Rp5,099,600
2	102.3	Rp50,000	Rp5,115,000
Total Penerimaan			Rp202,977,625

Source: Processed Primary Data (2023)

Table 3 shows that the total revenue obtained during one cycle from July to December 2023 amounts to Rp 202,922,625. This revenue is generated from the operation of 3 ponds and the highest sales of 1,537 tons at a selling price of Rp 75,100/kg.

Financial Analysis

Based on the calculations above, the income and expenses for the vanamae shrimp cultivation business at Kolam Budidaya Linduk are as follows,

TR *(Total Revenue)* = Rp 202.977.625 Invesment
= Rp 1.530.350.000
TFC = Rp 7.070.000
TVC = Rp 83.173.000
TC = Rp 90.243.000

1. Net Profit

$\prod$ = TR - TC
$\prod$ = Rp 202.977.625 - Rp 90.243.000
$\prod$ = Rp 112.734.625

Based on the calculation results, it is found that the net profit in the vanamae shrimp cultivation business at Kolam Budidaya Linduk is Rp 112,734,625. The generated profit demonstrates the business's ability to recover operational expenses or costs incurred. The higher the net profit, the more efficient the business is considered. The profit obtained by Kolam Budidaya Linduk indicates a positive figure, indicating that this business is deemed feasible to operate.

2. R/C Profit

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

$$\text{R/C Ratio} = \frac{\text{Rp } 202.977.625}{\text{Rp } 90.243.000}$$

R/C Ratio = 2.25

Based on the Revenue Cost Ratio calculation, the result is 2.25. Therefore, it can be concluded that Kolam Budidaya Linduk is profitable and feasible to operate, as the R/C Ratio value is greater than 1.

3. Profitability

$$\text{Profitability} = \frac{\text{Net Profit}}{\text{Working Capital}} \text{ x } 100\%$$

$$\text{Profitability} = \frac{\text{Rp } 112.734.625}{\text{Rp } 285.000.000} \times 100\%$$

$$\text{Profitability} = 39{,}55\%$$

In this vanamae shrimp cultivation business, a profitability value of 39.55% is obtained. Therefore, the business has generated a profit of 39.55% of the working capital invested. It can also be interpreted that every additional investment of Rp. 100- This business will result in a profit of Rp. 39.00.

4. Break Even Point

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

$$\text{Sales BEP} = \frac{\text{Rp } 7.070.000}{1 - \frac{\text{Rp } 83.173.000}{\text{Rp } 202.977.625}}$$

$$\text{Sales BEP} = \frac{\text{Rp } 7.070.000}{1 - 0{,}40}$$

$$\text{Sales BEP} = \text{Rp } 11.783.333{,}33$$

BEP (Break et al.) is the business's break-even point, and the BEP value can be observed when sales reach a certain unit level, making the business profitable. The sales BEP for Kolam Budidaya Linduk is Rp 11,783,333.33. In one cycle that has been implemented, Kolam Budidaya Linduk generated revenue of Rp 202,977,625. Therefore, it can be concluded that this business is feasible to run because the production results are above the break-even point.

5. Payback Period

$$PP = \frac{I}{\pi} \times 1 \text{ year}$$

$$PP = \frac{\text{Rp } 1.530.350.000}{\text{Rp } 202.977.625} \times 1 \text{ year}$$

$$PP = 7 \text{ years five months}$$

The Payback Period determines how long the capital invested in the business can be recovered. The payback period for Kolam Budidaya Linduk is seven years and five months of operation. The payback period for this business is considered relatively long. Therefore, particular strategies are needed to increase product sales and improve the business's financial performance.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Several key conclusions emerge after a comprehensive analysis of Linduk Aquaculture Ponds' vanamae shrimp cultivation venture. The business exhibits extensive market potential, boasting access to collectors/distributors, local markets, and export opportunities, forming a robust foundation for its growth. Government support and a competitive edge in shrimp quality, coupled

with environmentally friendly cultivation practices, serve as primary catalysts for the business.

From a technical standpoint, the venture is deemed viable, showcasing suitability in terms of location, implementation of intensive cultivation technology, meticulous attention to larval quality, pond monitoring, and adherence to criteria for sustainable farming. The management and organizational structure are well-established, efficiently managing inventory and implementing all three management functions. However, the recruitment system currently lacks optimal structuring, yet the owner has successfully fostered effective collaborations.

Regarding economic and social impact, the business contributes positively to owners, workers, suppliers, local markets, and village communities, fostering internal economic stability and bolstering the local economy. Environmental challenges, such as resource utilization and waste management, necessitate sustainable strategies and technological innovations.

The financial analysis results affirm the positive performance of the business. Net profit, amounting to Rp 112,734,625, reflects the efficiency of the business in recovering expenses. The R/C Ratio of 2.25 indicates profitability and viability, with a value exceeding

1. The business's profitability reaches 39.55%, signifying its capability to generate a profit of Rp 39.55 for every working capital unit invested. The Break Even Point (BEP) for sales at Rp 11,783,333.33 indicates that Linduk Aquaculture Ponds has reached the break-even point and is deemed feasible. Although the Payback Period of 7 years and five months is categorized as relatively long, specialized strategies are required to enhance product sales and expedite the return on invested capital. Overall, the analysis supports the suitability and feasibility of this venture in the vanamae shrimp cultivation market, showcasing long-term profit potential.

Recommendations

Based on a comprehensive evaluation, Linduk Aquaculture Ponds can be considered a viable venture for further development. Several recommendations can guide business owners to enhance performance and achieve long-term sustainability. Firstly, There is a need to strengthen a more focused and structured marketing strategy that utilizes effective media and promotions. Secondly, expanding sustainable technology in shrimp cultivation should be broadened, including exploring the latest innovations and adding operational ponds to improve productivity and product quality.

Improving human resource management and organizational aspects through formal recruitment systems and continuous training is crucial for developing this venture. Furthermore, a deeper environmental strategy is necessary, involving adopting sustainable farming practices, environmentally friendly technologies, and improved waste management. Collaboration with the government, environmental institutions, and the local community is also essential. Finally, carefully implementing financial risk management strategies can help reduce potential impacts from market changes or economic conditions. By strengthening these aspects, Linduk Aquaculture Ponds has the opportunity to enhance its competitiveness, achieve sustainable growth, and make a more significant positive impact on the economy, society, and the environment.

REFERENCES

Annur, C. M. (2023, July). *Konsumsi Ikan dan Udang Segar Nasional 2022 Tertinggi dalam Satu Dekade*. Retrieved November 2023, from Databoks:

https://databoks.katadata.co.id/datapublish/2023/07/11/konsumsi-ikan-dan- udang-segar-nasional-2022-tertinggi-dalam-satu-dekade

Aprilia, D., & Chasyim Hasani, M. (2020). *Analisis Finansial Budidaya Produksi Udang Vanname (Litopaneus Vanamae) Pada Tambak Supra-Intensif di Dewi Windu Kabupaten Barru Financial Analysis of Vanname Shrimp (Litopaneus vanamae) Cultivation in Supra-Intensive Farming in CV. Dewi Windu, Barru Regency*. *4*(1),39–49.

Bangkit, Taufiq, Farica, Mutiara, Muhammad, Nahl, & Joni. (2022). *Analisis Kelayakan Usaha Budidaya Udang Vanamae (Litopenaeus vanamae) Sistem Intensif di Desa Sawojajar Kecamatan Wanasari, Kabupaten Brebes.*Universitas Jenderal Soedirman, Pusat Inkubator Bisnis Lembaga Penelitian dan Pengabdian kepada Masyarakat, Purwokerto.

Darmawan Esa, M. F., Krisnamurthi, B., & Suharno, S. (2022). Analisis Kelayakan Usaha Udang Vanamae (Litopenaeus Vanamae) Keramba Jaring Apung Laut di Kepulauan Seribu. *Jurnal Agribisnis Indonesia*, *10*(2), 280–288. https://doi.org/10.29244/jai.2022.10.2.280-288

Grahadyarini, B. L. (2023, April). *Menakar Capaian Produksi Udang*. Retrieved November 2023, from Kompas.id: https://www.kompas.id/baca/ekonomi/2023/04/23/menakar-capaian-produksi-udang#:~:text=Menurut%20Direktur%20Jenderal%20Perikanan%20Budidaya,2%20juta%20ton%20pada%202024

Hanif, M. (2023, August). *Prospek dan Cara Lengkap Ekspor Udang Vanamae.* Retrieved November 2023, from Efishery: https://efishery.com/id/resources/ekspor-udang-Vanamae/

Hilal, & Fatmawati Ika. (2019). *Analisis Kelayakan Budidaya Tambak Udang Vanamae Semi Intensife Di Desa Lapa Taman Kecamatan Dungkek Kabupaten Sumenep*.

Indra, Adita Dini Muhammad, & Utami Nur Suci. (2022). *Analisis Kelayakan Finansial pada Usaha Budidaya Udang Vanamae di Desa Bangsri Kecamatan Bulakamba Kabupaten Brebes*. *6*.

Indonesian. (2023, October). *CBIB Paradigma Menuju Perikanan Budidaya Berkelanjutan*. Retrieved November 2023, from Niaga Asia: https://www.niaga.asia/cbib-paradigma-menuju-perikanan-budidaya- berkelanjutan/

Ismail Yulan. (2020). *Analisis Kelayakan Usaha Tambak Udang Vanamae Di Desa Patuhu Kecamatan Randangan Kabupaten Pohuwato*. *8*.

Jayanti, A. S. (2022, March). *Udang Vanamae, Udang Ekspor Terbanyak Di Indonesia Vanamae Shrimp, The Largest Export Shrimp*. Retrieved November 2023, from Nano Bubble: https://nanobubble.id/blog/udang-vanamae-jadi-udang-ekspor- terbanyak-di-Indonesia

Kamil, M. I., Nuryati, R., & Tedjaningsih, T. (2023). *KELAYAKAN USAHA BUDIDAYA UDANG VANAMAE.*Universitas Siliwangi, Fakultas Pertanian, Tasikmalaya.

Khatimah, K. (2019). Analisis Kelayakan Finansial Budidaya Udang Vanamae di Desa Parangtritis, DIY. *Jurnal Ekonomi Pertanian Dan Agribisnis*, *3*(1), 21–32. https://doi.org/10.21776/ub.jepa.2019.003.01.3

Maulana, M., Rozalina, & Anzhita, S. (2022). *Analisis Kelayakan Usaha Budidaya Udang Vanamae (Litopenaeus vanamae) Sistem Intensif (Studi Kasus : Usaha Tambak Pak Boy Kabupaten*

Aceh Tamiang). Universitas Samudra Langsa, Pertanian, Langsa.

Pulungan Rizky Hermawan, Fauzia, L., & Emalisa. (n.d.). *Analisis Kelayakan Usaha Tambak Udang (Studi Kasus : Desa Sei Meran, Kec. Pangkalan Susu,Kab. Langkat)*.

Rizky Utomo, S., Rantung, S. V, Sondakh, S. J., Andaki, J. A., & Rarung, L. K. (2022). *Analisis Kelayakan Usaha Budidaya Udang Vanamae (Litopenaeus Vanamae) (Studi Kasus di Balai Pelatihan dan PenyuluhanPerikanan Bitung)*. *10*.

Rumaijuk, F. A., & Lubis, S. N. (2020). Analisis Prospek Usaha Budidaya Udang Vanamae Di Kabupaten Langkat Provinsi SumateraUtara. In *JURNAL PROINTEGRITA* (Vol. 4, Issue 1).

Setyawan, E. Y. (2022, March). *Produksi Budi Daya Udang di Indonesia*. RetrievedNovember 2023, from Balai Besar Riset Sosial Ekonomi Kelautan Dan Perikanan: https://kkp.go.id/brsdm/sosek/artikel/39265-produksi-budi-daya-udang-di- indonesia

Sinaga Riswanto, & Aminah. (2022). *Analisis Kelayakan Usaha Udang Vanamae Di Desa Bumi Pratama Mandira Kecamatan Ogan Komering Ilir Kabupaten Sumatera Selatan*. *15*.

Utomo Budi Nursetyo, Istiyanti Eni, & Zulfanita. (2012). *Analisis Usaha Budidaya Udang Vanamae (Litopenaues Vanamae) Di Desa Gedangan Kecamatan Purwodadi Kabupaten Purworejo*. *1*.

Widi, S. (2022, September). *Produksi Udang Indonesia Capai 1,21 Juta Ton pada 2021*.Retrieved November 2023, from Data Indonesia: https://dataindonesia.id/agribisnis-kehutanan/detail/produksi-udang-indonesia-capai-121-juta-ton-pada2021#:~:text=Produksi%20udang%20di%20Indonesia%20mencapai,dengan%20nilai%20Rp66%2C53%20triliun.

Witoko, P., Purbosari, N., & Noor, N. M. (2018). *Analisis Kelayakan Usaha Budidaya Udang Vanname (Litopenaeus vanamae) di Keramba Jaring Apung Laut.* Politeknik Negeri Lampung, Peternakan, Lampung.

Yolandha, F. (2023, September). *KKP: Ekspor Perikanan Indonesia Capai 2,8 MiliarDolar AS*. Retrieved November 2023, from Republika: https://ekonomi.republika.co.id/berita/s0x0ev370/kkp-ekspor-perikanan- indonesia-capai-28-miliar-dolar-as

Zaenuddin Luthfi, M., Rejeki, S., & Elfitasari, T. (2017). Analisa Kelayakan Usaha Budidaya Polikultur Udang Windu (Penaeus Monodon) Dan Ikan Koi (Cyprinus Carpio) Di Desa Bangsri, Kabupaten Brebes. In *Tita Elfitasari/Jurnal Sains Akuakultur Tropis* (Vol. 1)