

Feasibility Study of Discarded Seafood Based Business at the Chipsea Seafood Snack Business in Pangandaran Regency

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ABSTRACT

The discarded seafood phenomenon in Pangandaran Regency reduces the economic value of a portion of fishermen's catches due to low market demand and limited utilization. Chipsea Seafood Snack was established as an innovative business that transforms low-value seafood into value-added snack products. This study aimed to analyze the business feasibility of Chipsea Seafood Snack from six aspects: market and marketing, technical and operational, financial, management and human resources, legal, and environmental-social aspects. A descriptive qualitative approach was employed using in-depth interviews, observation, and documentation as data collection methods. The findings indicate that the market and marketing aspect is feasible, supported by growing demand, particularly from tourists visiting Pangandaran. The technical and operational aspect is also feasible due to the strategic location near raw material sources, adequate raw material availability, and the use of simple production technology. Financial analysis demonstrates that the business is financially viable. The legal aspect is feasible because the business possesses the required permits and certifications. The environmental and social aspect is also feasible, as the business creates employment opportunities, supports local fishermen, and does not generate significant negative environmental impacts. However, the management and human resource aspect requires improvement, particularly regarding organizational structure, wage systems, and employee development. Overall, Chipsea Seafood Snack is considered feasible for further development and has the potential to serve as a sustainable coastal MSME model based on the utilization of discarded seafood.

Keywords: *Chipsea; discarded seafood; Pangandaran; seafood snacks; business feasibility studies; Coastal MSMEs.*

INTRODUCTION

Indonesia is known as the world's largest archipelagic country, consisting of 17,504 islands, with a coastline stretching more than 54,716 km and a national marine area of approximately 6.4 million km². These geographical conditions create extensive coastal and marine zones that serve as natural habitats for various species of fish, mollusks, and other marine organisms (World Population Review, 2026). This vast marine resource

potential should support the fisheries sector as one of the main pillars of the national economy.

However, this potential has not been fully supported by the optimal utilization of fishery catches. One of the common issues in the fisheries sector is the phenomenon of discarded seafood, which refers to seafood catches that are less preferred by the market, have low economic value, are small in size, or are obtained as bycatch. As a result, a portion of the catch is not fully absorbed by the marketing chain and is often used only as animal feed, raw material for salted fish, or even discarded, leading to economic losses for fishermen (Mas'ud et al., 2024).

The phenomenon of discarded seafood is also found in Pangandaran Regency, a coastal area with relatively high fishing activities. Fishermen in Pangandaran frequently catch bycatch species such as wilis fish, jambu shrimp, anchovies, and baby squid, which generally have lower market value compared to the main fishery commodities. Limited market demand and low consumer interest in these products cause unstable selling prices, which ultimately affect fishermen's income (Teixeira et al., 2024). According to the International Fund for Agricultural Development (IFAD, 2020), around 35% of Indonesia's total seafood catch is wasted before being utilized or consumed, indicating a significant loss of fishery resources. Mas'ud et al. (2024) stated that properly managed discarded seafood still has strong potential to be processed into products with higher economic value.

Increasing the value of discarded seafood can be achieved through the development of processed products that meet market needs. One example is Chipsea Seafood Snack, a business that utilizes discarded seafood such as wilis fish, jambu shrimp, anchovies, and baby squid as raw materials for seafood-based snacks with higher economic value. Through appropriate processing, packaging, and marketing strategies, discarded seafood that previously had low market value can be transformed into attractive products for consumers while also generating additional income for fishermen and business operators.

Several previous studies have shown that the utilization of bycatch and discarded seafood can generate significant economic value for coastal communities. Rahmawati and Setiawan (2022) found that processing bycatch into food products based on a circular economy approach increased fishermen's income and created new business opportunities for coastal MSMEs in West Java. Their findings demonstrated that commodities with previously low market value could be transformed into high-value products through product innovation and effective marketing strategies. Furthermore, Mas'ud et al. (2024) explained that the use of bycatch as raw material for processed products improves the efficiency of marine resource utilization while expanding fishery product diversification. Their study showed that the selling value of processed products increased several times compared to the sale of raw materials. At the international level, Teixeira et al. (2024) reported that the development of value-added products from discarded seafood has become a widely adopted strategy to reduce fishery waste while improving the profitability of seafood-processing businesses. These successful practices indicate that discarded seafood should no longer be viewed as waste or low-value catches

but rather as economic resources with considerable potential for innovative and competitive product development.

A business feasibility study is important to evaluate whether a business has good prospects and is feasible for long-term development. This analysis covers several aspects, including market and marketing, technical and operational, financial, management and human resources, as well as environmental and legal aspects (Kasmir & Jakfar, 2015). Through such an assessment, business owners can identify opportunities, challenges, and potential risks, allowing them to formulate more effective business development strategies.

Based on the phenomenon and previous studies discussed above, this research aims to analyze the business feasibility of Chipsea Seafood Snack, a business based on the utilization of discarded seafood in Pangandaran. The findings are expected to support business development decisions while contributing to the increased value of underutilized fishery products, thereby promoting sustainable economic growth for coastal communities.

METHOD

This study employed a qualitative research method with a descriptive approach. The qualitative approach was chosen because the research focuses on an in-depth analysis of Chipsea Seafood Snack as a business that utilizes discarded seafood as its main raw material. Qualitative research enables researchers to understand a phenomenon comprehensively from the perspective of the subjects being studied and to explore the meanings embedded in various business activities (Kaharuddin, 2021). Theoretical frameworks were used as guidelines to maintain the research focus on the business feasibility aspects examined in the field. This method was selected because the study aims not only to evaluate financial aspects but also to examine market, operational, managerial, social, and environmental aspects that are contextual in nature. According to Sugiyono (2019), qualitative methods are appropriate for understanding social interactions, hidden meanings, and naturally occurring phenomena within the research setting.

The study was conducted at Chipsea Seafood Snack, located in Sidomulyo Hamlet RT 003 RW 005, Sidomulyo Village, Pangandaran District, Pangandaran Regency, West Java, Indonesia. The research object focused on the utilization of discarded seafood as the primary raw material in the production process and the analysis of business feasibility covering market and marketing aspects, technical and operational aspects, financial aspects, management and human resources aspects, as well as environmental and legal aspects. The research was carried out from January to March 2026.

Data were collected through in-depth interviews, observation, and documentation. Interviews were conducted using a semi-structured interview guide developed based on the research objectives. This technique enabled the researcher to obtain detailed information regarding informants' perceptions of discarded seafood and the management of the Chipsea Seafood Snack business. The key informants consisted

of the business owner, production employees, and fishermen who supplied raw materials. In addition, direct observations were conducted to obtain a clear understanding of the production process, business facilities, technology utilization, and other operational activities. Observation allowed the researcher to gather factual information through direct examination of the research object (Patilima, 2005). Documentation was used to support the research data through the collection of business records, sales reports, financial reports, product photographs, promotional materials, business licenses, and documentation of production activities and interviews with informants (Creswell, 2014).

Data analysis was conducted continuously throughout the research process. According to Creswell (2014), qualitative data analysis involves ongoing reflection on collected data, the development of analytical questions, and the interpretation of information provided by participants. The analysis began with data collection through interviews, observations, and documentation. The collected data were then reduced by summarizing, selecting relevant information, focusing on important aspects, and categorizing data into specific themes to provide a clearer understanding of the research object. After the data reduction process, the findings were presented in a systematic narrative form to facilitate the understanding of relationships among the findings. The final stage involved drawing conclusions and verifying the results. The conclusions were continuously checked against field data until consistent and credible evidence was obtained. Through this process, the study is expected to produce valid findings and contribute to both academic knowledge and business practices related to discarded seafood utilization.

The validity of the data was ensured through technique triangulation. Sugiyono (2019) explained that technique triangulation involves comparing data obtained through different data collection methods from the same source. In this study, interview results from business owners, employees, and fishermen supplying raw materials were verified through direct observations at the production site. The observation findings were then compared with supporting documents such as financial reports, product photographs, and business licensing documents. Furthermore, the documentation data were reconfirmed through follow-up interviews to ensure information consistency. If discrepancies were found among different sources, further clarification was sought from the relevant informants until the most accurate and reliable information was obtained. Therefore, the credibility and validity of the research data could be maintained effectively (Miles, Huberman, & Saldaña, 2014).

FINDINGS AND DISCUSSION

A. Research Results

1. Utilization of Discarded Seafood

Based on observations and interviews with fishermen and seafood-processing business owners in Pangandaran Regency, several marine catches with low economic value and limited market demand were identified. These include wilis fish, jambu shrimp, petek fish, anchovies, scad fish, and baby crabs. These commodities are

generally obtained as bycatch or as abundant catches during certain fishing seasons, resulting in relatively low market prices compared to primary fishery products.



Figure 4.1. Documentation of Discarded Seafood

Source: Field Observation Results

Figure 4.1 presents several types of discarded seafood found in Pangandaran. According to fishermen, wilis fish and scad fish are commonly sold for approximately IDR 5,000 per kilogram, while jambu shrimp, anchovies, and petek fish are sold for around IDR 25,000 per kilogram. The low selling prices are mainly caused by limited consumer demand, small product size, and the lack of processing activities that could increase their economic value.

2. Business Profile of Chipsea Seafood Snack

Chipsea Seafood Snack is a seafood-based snack business located in Pangandaran Regency. The business was established in 2019 with an initial capital of IDR 1,000,000. In its early stage, Chipsea focused on producing crispy jambal fish products that were marketed through local souvenir shops in Pangandaran. The product gained positive consumer acceptance due to its distinctive seafood flavor, which reflects the identity of the coastal region.

However, the business faced several challenges, particularly the unstable availability of jambal fish and the relatively complex production process. These conditions encouraged the business owner to innovate and adjust the business model to ensure long-term sustainability.

Based on observations of Pangandaran's fisheries potential, the business owner identified several abundant but underutilized marine catches with low market value, including wilis fish, jambu shrimp, anchovies, and baby squid. Recognizing this opportunity, Chipsea Seafood Snack shifted its business focus toward processing discarded seafood into value-added seafood snacks, thereby increasing the economic value of these underutilized marine resources.

3. Market and Marketing Analysis

The market aspect aims to identify the level of market demand and determine a favorable market position for the business (Rahmadana, 2021). Marketing is defined as a social and managerial process through which individuals and groups obtain what they need and want through the creation and exchange of products and value with others (Rahmadana, 2021). Based on interviews with the owner of Chipsea Seafood Snack, the following findings were obtained:

a. Market Demand

The results indicate that demand for Chipsea Seafood Snack has increased since the business was established. This increase is particularly noticeable during weekends, public holidays, New Year celebrations, and Eid holidays, when tourist visits to Pangandaran significantly rise. The business owner stated:

"Sales always increase significantly during holiday seasons because our main target market is tourists. When Pangandaran Beach is crowded, demand also rises. However, Chipsea products are only available in a few souvenir shops, making them difficult for customers to find. In addition, we have not yet implemented digital marketing strategies." (Chipsea Owner, 2026)

These findings suggest that product demand is strongly influenced by the tourism sector. The growing number of visitors directly contributes to increased demand for seafood-based souvenir products. However, limited product distribution and the lack of digital marketing activities restrict market expansion. Therefore, although market demand is relatively high, its full potential has not yet been fully utilized.

b. Market Segmentation

Chipsea Seafood Snack applies geographic, demographic, and psychographic segmentation. Geographically, the product focuses on the Pangandaran Beach tourism area. Demographically, it targets consumers aged 15–50 years, including students, university students, workers, and housewives. Psychographically, the product is aimed at consumers who enjoy practical snacks, seafood-based products, and local specialty foods.

c. Target Market

The primary target market consists of tourists visiting Pangandaran Beach who seek local seafood-based souvenirs. In addition, the product also targets local residents and consumers who prefer seafood snacks with distinctive flavors and competitive prices.

d. Product Positioning

Chipsea Seafood Snack positions itself as a unique Pangandaran seafood snack made from locally sourced seafood and processed into a high-quality, hygienic, and value-added product. It serves as an alternative regional souvenir with distinctive seafood flavors and attractive packaging.

4. Competitor Analysis

Chipsea Seafood Snack demonstrates several competitive advantages compared to similar products available in the market. Most competing products are primarily flour-

based snacks with artificial seafood flavoring, whereas Chipsea uses real seafood ingredients such as wild fish, baby crabs, and shrimp without MSG. This provides additional value in terms of product quality and nutritional content, particularly its higher animal protein content.

In terms of legal compliance, Chipsea has obtained several certifications and permits, including the Business Identification Number (NIB), Home Industry Food Production Permit (SPP-IRT), Taxable Entrepreneur Status (PKP), Intellectual Property Rights (IPR), and laboratory-tested nutritional information. These certifications enhance consumer trust and product credibility. Furthermore, the product packaging is more informative and attractive than many competing products. Therefore, Chipsea Seafood Snack possesses strong competitive advantages in terms of raw materials, nutritional value, legal compliance, and packaging quality.

5. Financial Analysis

According to Kasmir and Jakfar (2015), the financial aspect is used to assess whether a business can generate profits and provide returns on invested capital. In this study, financial feasibility is evaluated using several investment criteria, including Investment Capital, Payback Period (PP), Net Present Value (NPV), Profitability Index (PI), Internal Rate of Return (IRR), Return on Investment (ROI), and Break-Even Point (BEP).

The business was established using the owner's personal funds. Self-financing was chosen as the primary source of capital, enabling the business to operate independently without relying on external financing or debt.

a. Investment Capital

The total investment required to establish the Chipsea Seafood Snack business amounted to IDR 43,000,000. The investment consisted of production equipment, operational facilities, and working capital. The largest portion of the investment was allocated to operational working capital, amounting to IDR 21,640,000, followed by an operational vehicle valued at IDR 18,340,000. The remaining investment was used to purchase production equipment, including a spinner machine, blender, sealer machine, and weighing scale. Table 4.1 presents the details of the initial investment required for the business.

Table 4.1. Initial Investment of Chipsea Seafood Snack

No	Investment Item	Value (IDR)
1	Spinner Machine	1,500,000
2	Blender	800,000
3	Sealer Machine	240,000
4	Weighing Scale	480,000
5	Operational Working Capital	21,640,000
6	Operational Vehicle	18,340,000
Total Investment		43,000,000

Source: Processed Primary Data (2026)

The findings indicate that the investment structure is dominated by operational support and working capital, reflecting the importance of maintaining a stable supply of raw materials, production activities, and product distribution. The availability of adequate equipment and operational facilities is expected to support production efficiency and ensure business sustainability. Since the business is financed entirely through the owner's personal capital, Chipsea Seafood Snack does not incur financing costs or loan obligations, which reduces financial risk during the early stages of business development.

b. Payback Period (PP)

Payback Period (PP) is used to determine the amount of time required for the initial investment to be recovered through the profits generated by the business.

Table 4.3. Payback Period Calculation

Description	Value
Initial Investment	IDR 43,000,000
Annual Net Profit	IDR 75,788,700
Payback Period	0.57 Years

Source: Processed Primary Data (2026)

The Payback Period was calculated using the following formula:

$$PP = \frac{\text{Rp } 43.000.000}{\text{Rp } 75.788.700}$$

$$PP = 0,57 \text{ years}$$

$$= 0,57 \times 12 = 6,8 \text{ month}$$

The calculated Payback Period was 0.57 years (approximately 6.8 months), indicating that the initial investment of IDR 43,000,000 can be recovered in less than one year. This result suggests that Chipsea Seafood Snack is financially feasible and capable of providing a rapid return on investment.

c. Net Present Value (NPV)

Net Present Value (NPV) is the difference between the present value of future cash inflows and the initial investment. In this study, a discount rate of **10%** was applied to evaluate the financial feasibility of the business.

Table 4.4. Net Present Value (NPV) Calculation

Year	Net Cash Flow (IDR)	DF 10%	Present Value (IDR)
0	(43,000,000)	1.00	(43,000,000)
1	75,788,700	0.91	68,898,818
Total PV of Cash Inflows			68,898,818
NPV			25,898,818

Source: Processed Primary Data (2026)

The NPV was calculated using the following formula:

$$NPV = \sum \text{Present Value of Cash Inflows} - \text{Initial Investment}$$

$$NPV = \text{Rp } 68.898.818 - \text{Rp } 43.000.000$$

$$NPV = \text{Rp } 25.898.818$$

Based on the calculation results, the Net Present Value (NPV) of Chipsea Seafood Snack is IDR 25,898,818, indicating a positive value ($NPV > 0$). This means that the present value of future cash inflows exceeds the initial investment required for the business. According to Kasmir and Jakfar (2015), a positive NPV indicates that a business is financially feasible because it generates returns greater than its investment costs. Therefore, Chipsea Seafood Snack can be considered a viable and profitable business venture for further development.

d. Profitability Index (PI)

The Profitability Index (PI) is used to measure the level of profitability generated from each unit of investment made. This indicator compares the present value of future cash inflows with the initial investment and is commonly used to assess the financial feasibility of a business project.

The formula used to calculate the Profitability Index is as follows:

$PI = PV \text{ of Investment} / PV \text{ of Cash Inflows}$

Table 4.5. Profitability Index Calculation

Description	Value (IDR)
Present Value of Cash Inflows	68,898,818
Initial Investment	43,000,000
Profitability Index	1.60

Source: Processed Primary Data (2026)

The PI was calculated as follows:

$$PI = \frac{Rp\ 68.898.818}{Rp\ 43.000.000}$$

$$PI = 1,6$$

Based on the calculation results, the Profitability Index (PI) is 1.60. This value is greater than 1 ($PI > 1$), indicating that the present value of future benefits exceeds the initial investment. In practical terms, every IDR 1 invested generates IDR 1.60 in present value returns. Therefore, Chipsea Seafood Snack is considered financially feasible and worthy of further development.

e. Internal Rate of Return (IRR)

The Internal Rate of Return (IRR) is the discount rate that makes the Net Present Value (NPV) of a project equal to zero. It is commonly used to evaluate the profitability and financial feasibility of an investment project.

Table 4.6. Internal Rate of Return (IRR) Calculation

Discount Rate	NPV (IDR)
50%	7,525,800
100%	(5,105,650)

Source: Processed Primary Data (2026)

The IRR was calculated using the following interpolation formula:

$$IRR = i_1 + \frac{NPV_1}{NPV_1 - NPV_2} (i_2 - i_1)$$

$$IRR = 50\% + \frac{Rp\ 7.525.800}{Rp\ 7.525.800 - (-Rp\ 5.105.650)} (100\% - 50\%)$$

$$IRR = 79,8\%$$

Based on the calculation results, the Internal Rate of Return (IRR) is **79.8%**. This value is substantially higher than the discount rate of **10%** used in this study. According to Kasmir and

Jakfar (2015), an investment is considered feasible when the IRR exceeds the required rate of return or discount rate. Therefore, the results indicate that Chipsea Seafood Snack has a high investment return and is financially feasible for further development. The high IRR value also demonstrates the business's strong ability to generate returns relative to the capital invested.

f. Return on Investment (ROI)

Return on Investment (ROI) is used to measure the ability of an investment to generate profits. This indicator shows the percentage of net profit earned relative to the total investment made. The formula used to calculate ROI is as follows:

$$ROI = \frac{\text{Net Profit}}{\text{Initial Investment}} \times 100\%$$

Table 4.7. Return on Investment (ROI) Calculation

Description	Value (IDR)
Net Profit	75,788,700
Initial Investment	43,000,000
ROI	176.25%

Source: Processed Primary Data (2026)

The ROI was calculated as follows:

$$ROI = \frac{Rp\ 75.788.700}{Rp\ 43.000.000} \times 100\%$$

$$ROI = 176,25\%$$

Based on the calculation results, the Return on Investment (ROI) is 176.25%, indicating that the net profit generated by the business is equivalent to 176.25% of the total investment. In practical terms, every IDR 1,000,000 invested generates approximately IDR 1,762,500 in net profit during one business period. This high ROI demonstrates that Chipsea Seafood Snack has excellent profitability and strong financial performance. Therefore, the business can be considered financially feasible and highly attractive for further development.

g. Break-Even Point (BEP)

Break-Even Point (BEP) is used to determine the minimum number of products that must be sold to cover total costs and reach a no-profit, no-loss position.

Table 4.6. Break-Even Point (BEP) Calculation

Description	Value
Total Cost	IDR 94,651,300
Selling Price per Unit	IDR 20,000
Break-Even Point	4,733 Units

Source: Processed Primary Data (2026)

The BEP was calculated using the following formula:

$$BEP = \frac{Rp\ 94.651.300}{Rp\ 20.000}$$

$$BEP = 4.733\ \text{unit}$$

The calculation indicates that Chipsea Seafood Snack must sell at least 4,733 units to cover all production and operational costs. Sales beyond this level will generate profit for the business. Since the current sales performance exceeds the break-even point, the

business demonstrates favorable financial prospects and can be considered economically feasible.

Based on the financial analysis using the Payback Period (PP), Net Present Value (NPV), Profitability Index (PI), Internal Rate of Return (IRR), Return on Investment (ROI), and Break-Even Point (BEP) methods, Chipsea Seafood Snack is considered financially feasible for operation and further development. This conclusion is supported by a Payback Period of **0.57 years**, a positive NPV of **IDR 25,898,818**, a PI of **1.60**, an IRR of **79.8%**, an ROI of **176.25%**, and actual production levels that have exceeded the business break-even point. These findings are consistent with the investment feasibility criteria proposed by Kasmir and Jakfar (2015), which state that a business is considered feasible when it has a positive NPV ($NPV > 0$), a Profitability Index greater than one ($PI > 1$), an IRR that exceeds the applicable discount rate, and the ability to recover its investment within a relatively short period. Therefore, the financial performance indicators demonstrate that Chipsea Seafood Snack has strong profitability, rapid capital recovery, and promising prospects for sustainable business growth.

6. Technical and Operational Analysis

The technical and operational aspect is related to the methods and technologies used during the production process. This aspect includes the evaluation of business location, raw material procurement, production layout, technology utilization, and production processes (Kasmir & Jakfar, 2015).

a. Location Selection

Based on the research findings, Chipsea Seafood Snack is located in Sidomulyo Hamlet, Sidomulyo Village, Pangandaran District, near the Pangandaran Fish Auction Center (TPI). This location provides strategic advantages by facilitating access to fresh raw materials, reducing transportation costs, and maintaining the quality of seafood before processing.

b. Raw Material Procurement

The main raw materials consist of wilis fish, jambu shrimp, anchovies, and baby crabs, which are obtained directly from fishermen and seafood collectors around the Pangandaran Fish Auction Center. Since the availability of raw materials is seasonal, the business purchases larger quantities during peak fishing seasons to ensure production continuity.

c. Production Layout

The production process is carried out in a home-based production facility designed to meet the needs of a small-scale enterprise. Although the layout remains relatively simple, it follows a logical production flow from raw material receiving to final packaging.

d. Technology Utilization

The technology employed is relatively simple and semi-manual. The main equipment includes frying equipment, a spinner machine to reduce oil content, and a

sealing machine for packaging. These technologies contribute to improving operational efficiency while maintaining product quality and shelf life.

e. Production Process

The production process of Chipsea Seafood Snack is conducted semi-manually with technological support. The production stages include: (1) selection and cleaning of seafood raw materials, (2) mixing ingredients and forming the product mixture, (3) frying, (4) oil reduction using a spinner machine, (5) seasoning, and (6) packaging using a sealing machine. The use of spinner and sealing machines enhances production efficiency and produces a more hygienic product with a longer shelf life.

7. Management and Human Resource Analysis

The management and human resource analysis indicates that Chipsea Seafood Snack operates with a relatively simple organizational structure. The business is managed by a single owner who also serves as the operational manager, supported by three employees responsible for production activities. This arrangement reflects the operational efficiency commonly found in micro, small, and medium enterprises (MSMEs), where managerial and operational functions are centralized under the business owner.

Production activities are conducted daily from 09:00 AM to 05:00 PM. These operating hours are adjusted to production requirements and labor availability, allowing production activities to be carried out efficiently within a limited working period. Employee compensation is based on a performance-target system, where wages are calculated according to completed tasks and measured on a kilogram basis, with workers receiving IDR 3,000 per kilogram.

As stated by the business owner:

"The wage system is based on work completion targets. Employees are paid according to the tasks they complete, such as cleaning seafood materials." (Chipsea Owner, 2026)

This compensation system aligns employee earnings with productivity, thereby encouraging efficiency in production activities. However, as the business expands, a more structured human resource management system will be necessary to support sustainable growth and increased production capacity.

8. Legal and Regulatory Analysis

Chipsea Seafood Snack is a seafood-based processed food business operated as an MSME. The business has obtained several formal legal certifications, including a Business Identification Number (NIB), a Home Industry Food Production Certificate (SPP-IRT), and a Halal Certificate. The availability of these certifications demonstrates compliance with applicable regulations governing food safety, product quality, and business legality. Therefore, the business possesses a strong legal foundation to support its long-term operations and market expansion.

9. Environmental and Social Analysis

The environmental analysis indicates that Chipsea Seafood Snack does not generate significant negative impacts on the surrounding environment. Production waste is managed through a simple disposal system in which wastewater is directed into a designated soil pit located in a garden area behind the production site and away from

residential settlements. This practice helps minimize potential environmental disturbances such as unpleasant odors and pollution.

As stated by the business owner:

"Since the business was established, there have been no environmental problems around the production site, such as unpleasant odors, because the wastewater is disposed of in a designated soil pit located in a garden area far from residential settlements." (Chipsea Owner, 2026)

From a social perspective, Chipsea Seafood Snack provides several positive contributions to the coastal community of Pangandaran Regency. First, the business creates local employment opportunities by hiring three employees from the surrounding village. Second, it creates a market for discarded seafood sourced from local fishermen, thereby increasing the economic value of previously underutilized marine catches and contributing to fishermen's income. In addition, the business supports the development of Pangandaran's local souvenir industry and strengthens the region's economic identity as a fisheries-based coastal destination.

Discussion

The findings indicate that the market and marketing aspects of Chipsea Seafood Snack are feasible and promising. Product demand continues to increase, particularly during holiday periods and peak tourist seasons in Pangandaran. This finding supports Aji Awwaluddin et al. (2023), who stated that market demand, segmentation, targeting, and positioning are key variables in determining business feasibility.

The implementation of the STP (Segmentation, Targeting, and Positioning) strategy demonstrates that Chipsea has adopted a structured marketing approach. Geographic, demographic, and psychographic segmentation targeting Pangandaran tourists reflects the business owner's understanding of potential consumer characteristics. According to Kotler and Keller (2016), effective marketing strategies depend on a firm's ability to understand and respond to market dynamics. In the case of Chipsea, this responsiveness is reflected in its informative premium packaging and product placement in strategic souvenir outlets. Therefore, the market and marketing aspect can be considered feasible, although improvements in distribution coverage and digital marketing are still needed to maximize market potential.

The results of observations and interviews indicate that the technical and operational aspects of Chipsea Seafood Snack are feasible and well managed. The business benefits from its strategic location near the Pangandaran Fish Auction Center (TPI), which provides easy access to fresh discarded seafood and ensures a continuous supply of raw materials. This finding is consistent with Umar (2007), who emphasized that a strategic location can reduce logistics costs and support production continuity.

Furthermore, the use of semi-mechanical equipment, such as spinner and sealing machines, has improved production efficiency and product hygiene. The structured six-stage production process, from raw material selection to packaging, demonstrates compliance with operational standards and supports the production of quality products. Therefore, the technical and operational aspect can be considered feasible and capable of supporting sustainable business operations.

The Profitability Index (PI) analysis resulted in a value of 1.60, which is greater than one ($PI > 1$). This indicates that every IDR 1 invested generates IDR 1.60 in benefits. The result demonstrates that the investment in Chipsea Seafood Snack provides a favorable return and creates value beyond the initial capital invested. This finding is consistent with Gitman and Zutter (2015), who stated that a PI greater than one indicates that a project is financially feasible because the benefits generated exceed the investment costs.

According to Kasmir and Jakfar (2015), the management aspect of a business feasibility study evaluates an organization's ability to plan, organize, implement, and control its operational activities. The findings indicate that production, raw material procurement, and marketing activities are conducted in a coordinated manner, although most managerial responsibilities remain centralized under the business owner. This suggests that the business has established an effective management system for its current scale of operation. However, the absence of a formal organizational structure and clear task division indicates the need for further managerial development to support future business growth and sustainability.

From a social perspective, the presence of Chipsea Seafood Snack provides benefits to the local community through the creation of employment opportunities and the utilization of discarded seafood sourced from local fishermen. The business generates added value from fishery products that previously had low economic value, thereby contributing to the income of coastal communities. This finding is consistent with Rahmawati and Setiawan (2022), who stated that the utilization of discarded seafood can enhance the economic value of fishery catches while providing positive socio-economic benefits for coastal communities.

The findings of this study are supported by previous research. Awwaluddin et al. (2023) found that resource-based processing businesses are feasible from both market and financial perspectives. These findings are consistent with the case of Chipsea Seafood Snack, which demonstrates growing market demand and strong financial performance, as reflected by its positive NPV, PI greater than one, IRR exceeding the discount rate, and relatively short investment payback period. Hepartiwi (2022) emphasized that human resources are a critical factor in the success of MSMEs. This is relevant to Chipsea, which still faces challenges in management and human resource practices, particularly regarding its wage system, which has not yet fully met applicable labor standards. Furthermore, Teixeira et al. (2024) highlighted the importance of discarded seafood processing as an innovative approach to increasing the value of underutilized marine resources. This finding is reflected in Chipsea's business model, which successfully transforms discarded seafood into value-added snack products in the local context of Pangandaran.

CONCLUSION

Based on the findings and business feasibility analysis, Chipsea Seafood Snack, a business that utilizes discarded seafood in Pangandaran Regency, is considered feasible for operation and further development. The utilization of discarded seafood, such as

wilis fish, jambu shrimp, anchovies, scad fish, and baby crabs, creates added value from marine catches that previously had low economic value, thereby providing economic benefits for both business owners and local fishermen.

The market and marketing analysis indicates that Chipsea Seafood Snack has promising market potential, particularly among tourists visiting Pangandaran Beach. The business has established clear market segmentation, targeting, and positioning strategies, supported by the use of real seafood ingredients, comprehensive legal certifications, and attractive product packaging. However, improvements in digital marketing and distribution networks are needed to expand market reach.

From the technical and operational perspective, the business benefits from a strategic location near raw material sources and utilizes simple technologies, such as spinner and sealing machines, to improve production efficiency and product quality. Raw material availability is also relatively secure through partnerships with local fishermen and seafood collectors around the Pangandaran Fish Auction Center.

The financial analysis demonstrates that Chipsea Seafood Snack is financially feasible, as evidenced by a short investment payback period, positive NPV, PI greater than one, IRR exceeding the discount rate, high ROI, and production levels above the break-even point. These results indicate strong financial performance and promising growth prospects.

The management and human resource analysis shows that business operations are functioning effectively with the support of one owner-manager and three employees. Nevertheless, improvements are needed in wage policies, organizational structure, and human resource development to support future business expansion.

The legal analysis confirms that the business has fulfilled the required legal and regulatory requirements through the ownership of a Business Identification Number (NIB), SPP-IRT certification, Taxable Entrepreneur Status (PKP), Intellectual Property Rights (IPR), Halal certification, and product nutrition testing certification. These certifications strengthen consumer confidence and enhance the business's market position.

The environmental and social analysis indicates that the business does not generate significant negative environmental impacts while providing positive socio-economic benefits to the local community. The business creates employment opportunities, establishes a market for discarded seafood sourced from local fishermen, and increases the economic value of underutilized fishery products.

Overall, Chipsea Seafood Snack meets the feasibility criteria in the market and marketing, technical and operational, financial, legal, and environmental-social aspects. Although improvements are still required in the management and human resource aspect, the business demonstrates strong potential as a sustainable coastal MSME model that generates economic value, supports fishermen's livelihoods, and promotes the efficient utilization of marine resources.

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