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# Financial Feasibility Analysis and Circular Economy Capitalization Strategy: A Case Study of Salmon Skin Waste Processing MSMEs (Salmontok) in Bali

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**KEYWORDS**
MSMEs, circular economy, salmontok, business feasibility, smart-manufacturing, salmon skin

**ABSTRACT**
The food MSME sector in Indonesia faces major challenges in terms of operational efficiency and investment visibility. This research aims to formulate a comprehensive business development plan within a period of five years, with a focus on operational transformation and strengthening the financial structure. This study used a descriptive qualitative approach with the type of applied research. Primary data was obtained through interviews, direct observations, and consumer surveys, while secondary data was obtained from the scientific literature. The financial feasibility analysis was carried out using the Net Present Value (NPV), Internal Rate of Return (IRR), Payback Period, and Break-Even Point (BEP) indicators. The results of the study show that the transformation towards "Smart-Manufacturing MSMEs" through drying mechanization (digital industrial dehydrators) is able to significantly increase production capacity, from 4,500 units to 20,000 units per month, while increasing time efficiency by 20%. From the financial aspect, the initial investment of IDR 850,000,000 is projected to generate turnover growth from IDR 1.2 billion in the first year to IDR 8.5 billion in the fifth year. Valuation analysis shows a positive NPV value of IDR 231,571,868, IRR of 33.00% (above the discount rate of 25%), and a Payback Period of 3 years and 9 months. Overall, Salmontok's business development plan is declared FEASIBLE to implement because it is able to create sustainable economic added value, strengthen brand equity, and have a managed risk profile.



## INTRODUCTION

The financial sector is the backbone for the sustainability of Micro, Small, and Medium Enterprises (MSMEs), but it is often a major obstacle to business scale expansion due to low financial literacy and weak investment visibility. In Indonesia, the processed food sector accounts for more than 61% of GDP, but margin efficiency at the MSME level is often eroded by operational waste. In this context, the modern financial paradigm is beginning to shift from simply pursuing linear profits to value optimization through the framework of the circular economy. Improving organizational performance in managing working capital and business innovation is highly dependent on the synergy between technology and managerial capabilities (Widjaja, et al. 2020).

The circular economy offers strategic financial solutions by transforming waste management costs into new revenue streams (Aiguobarueghian et al., 2024; Ezeudu & Bristow, 2025; Khan et al., 2025; Möslinger et al., 2023; Muyiwa-Ajayi et al., 2024). The fisheries sector

in Bali produces a significant volume of salmon shell waste which has been considered an environmental burden. In fact, if managed with the right lifestyle marketing strategy, the waste can be converted into functional products that meet the needs of the healthy lifestyle of urban people (Widjaja, 2016). In addition, investment in human resources and competitive advantage is key for organizations to improve their business performance amid fierce market competition (Winoto, et al. 2025).

The success of the capitalization of salmon skin waste is highly dependent on the formation of perceived value in the eyes of consumers (Rigueto et al., 2023; Soni et al., 2026; Thong et al., 2024; Velmurugan et al., 2026). The value perceived by customers is not only a matter of price, but is also influenced by the relational benefits and brand experience experienced by customers (Winoto et al. 2024). In a competitive industry, consumer purchasing decisions including in choosing healthy snacks are heavily influenced by product quality and trust in consistently built brands (Mandala, et al., 2024). This phenomenon is increasingly relevant with the rise of a new business ecosystem that emphasizes aesthetic and health values, or known as the glow economy (Tilaar et al., 2025).

In addition to external market factors, internal strengthening through work motivation and transformational leadership is needed to ensure that the company's operations run efficiently and productively (Baskoro, et al. 2021). Customer trust, which is the main foundation for increasing purchase intent, can be achieved through excellent service quality and effective digital marketing strategies (Andriana, et al. 2025). In the end, this waste-based innovation not only creates unique products, but also strengthens brand equity that is able to change the marketing landscape of MSME services and products in Indonesia (Widjaja, 2020).

Salmontok is present as a business model that tries to bridge this gap through an upcycling strategy (Fehrle, 2025; Groh, 2023). However, the success of an environment-based innovation depends heavily on its "financial viability". Without a sound financial structure, circular economy initiatives will only become unsustainable social projects (Monciardini et al., 2024; Möslinger et al., 2023; Sepetis, 2022; Tan et al., 2022; Villalba-Eguiluz et al., 2023). Therefore, it is important to highlight how the efficiency of waste-based raw material procurement, combined with the Value-Based Pricing strategy on functional products, can improve a company's operating cash flow (OCF) and present net value (NPV).

Based on the company's internal and external background and conditions, the problem formulation in preparing Salmontok's business development plan focuses on several strategic aspects. This study examines how to prepare an effective financial plan that can ensure operational sustainability while supporting business expansion. In addition, the research also explores appropriate strategies to increase production capacity and efficiency in order to overcome existing infrastructure limitations and respond to growing market demand. Furthermore, this study analyze Salmontok's investment visibility through projected turnover and profitability over the next five years as a basis for evaluating the feasibility and sustainability of the business development plan.

This research aims to analyze and formulate Salmontok's business development strategy for the next three to five years in a structured and comprehensive manner, with the main focus on improving production capacity and strengthening financial management. Specifically, this study seeks to identify strategic steps in developing an operational management system that emphasizes financial management and risk control. In addition, the research intends to design

a realistic and measurable business development plan that supports Salmontok's sustainable growth. The study also aims to conduct an investment feasibility analysis and develop projections of the company's turnover and profits over the next five years as a foundation for financial decision-making and expansion planning. Finally, this research provides data-driven recommendations to strengthen the company's internal structure in addressing challenges related to production capacity and increasing market demand.

## RESEARCH METHOD

### Approaches and Types of Research

This research used a descriptive qualitative approach with the type of applied research in the form of a case study of business plan development. The qualitative approach was chosen because this research aims to understand in depth and holistically the process of developing micro-businesses based on fishery waste, especially the processing of fish skins into healthy snacks with high economic value. This approach allows researchers to interpret empirical data and narratives obtained from research subjects through a process of observation, interviews, documentation studies, and theoretical reflection.

This type of research is classified as applied research, because it prepares concrete solutions in the form of business plan documents that can be directly implemented by MSME actors. The business plan includes production, marketing, financial management, and human resource management strategies designed based on relevant theories and the results of field observations.

The case study method was used to describe and analyze in depth one specific subject, namely Salmontok, a micro business processing of salmon skin located in Bali. This approach and design are expected to be able to produce findings that are applicable and contextual, as well as make a scientific contribution to the development of entrepreneurship literature based on local resources and sustainable management of fishery waste.

### Data Types and Sources

In this study, the data collected consists of primary data and secondary data that complement each other to obtain a complete understanding related to the preparation of business plans based on fish skin waste treatment.

### Data Primer

Primary data is data obtained directly from the field through interaction with subjects and research objects. This type of data is obtained by the following methods:

1. Interviews with MSME actors, seafood processors, restaurant owners (as a source of waste), and potential consumers of fish skin snack products.
2. Direct observation of the fish skin processing process, small-scale production environment, and the use of simple tools.
3. The survey was limited to collecting data on the perception of potential consumers towards fish skin-based snack products, especially in terms of attractiveness, nutritional value, and sustainability.

### Data Seconds

Secondary data is data collected from various documentation sources that are already available. This data includes:

Scientific literature, such as national and international journals that discuss fisheries waste treatment, circular economy, MSME product innovation, and micro business strategies.

The data analysis in this study was carried out in a qualitative descriptive manner, namely by processing, interpreting, and summarizing non-numerical data systematically to formulate a Salmontok MSME business plan model.

For the financial aspect, quantitative data from cost documents and market surveys are analyzed using simple business feasibility approaches such as Break-Even Point (BEP), Net Present Value (NPV), and Payback Period as supporting materials in compiling Salmontok's business financial projections.

## RESULTS AND DISCUSSION

### Operational and Production Plan

Salmontok's operational plan is designed to transform the business model from "weather-based production" to a structured, scalable, and sustainable "Smart-Manufacturing MSME". The main focus of this plan is synchronization between production technology improvements, digital system integration, and strengthening upstream-downstream partnerships to eliminate demand backlogs and support business scalability.

### Integrated Operational Workflow (End-to-End Process)

### Supply Chain Management (Upstream)

Supply chain management is focused on the stable and standardized availability of raw materials.

1. Procurement of Raw Materials

The procurement of salmon skin is carried out through an automatic restocking system every 14 days, adjusted to the import schedule of the main supplier in the Singaraja area, Bali.

2. Quality Control (QC) Bahan Baku

The raw materials must meet Grade A standards, with storage temperature criteria below 4°C and high level of elasticity. Verification is done digitally through uploading photos and temperature logs by staff into the inventory system before materials are processed.

3. Digital Sourcing & Supplier Backup

Salmontok uses a simple procurement platform to monitor the price, volume, and quality of raw materials from a minimum of two to three backup suppliers. This strategy is implemented to reduce the risk of dependence on a single vendor and maintain production continuity.

### Production and Technology (Midstream)

The production process is at the core of Salmontok's operational transformation towards a modern manufacturing system.

1. Production Technology Transformation

The entire drying process switched from the sun drying method to the use of Digital Industrial Dehydrators. Production capacity is targeted to reach 4,500 units per month in the first year, with a projected increase of up to 20,000 units per month in the fifth year. The temperature setting is kept stable at 60°C to maintain the nutritional quality of collagen and Omega-3.

2. Standardization of Production SOPs

All stages of work (Cleaning, Cutting, Drying, Frying, Seasoning) are documented in the form of:

a. Visual posters in the production area
b. Digital tutorial videos as new HR training materials

This approach ensures consistency of product quality and speeds up the employee onboarding process

3. Production Layout Optimization

The rearrangement of the work area is carried out with the principle of Linear Flow, which is a production flow, one direction without backflow. This strategy aims to:

a. Preventing cross-contamination
b. Increased production time efficiency by up to ±20%

**Fulfilment and Distribution (Downstream)**

The downstream stage is focused on order fulfillment speed and customer satisfaction.

1. Made-by-Stock System

Salmontok discontinued the made-by-order system and switched to made-by-stock. Warehouses maintain a safety stock of at least 15% of average monthly sales to prevent queues of orders.

2. Omnichannel Fulfillment

All orders from Shopee, Tokopedia, and WhatsApp Business are integrated in one digital dashboard. The packaging process is carried out by warehouse staff based on the FIFO (First In, First Out) principle to maintain the quality and freshness of the product.

**Digitalization and Operational Action Plan Matrix**

Operational Elements of Technology Work Program / Expected Output Tools Production Mechanization of Industrial Dehydrator Drying 24/7 production without weather interruptions, zero HR backlog Specialization of Attendance & Task Management Application Function Owners focus on strategy, staff work independently according to Financial SOPs Transaction Digitization POS (Moka) & Jurnal.id Real-time profit and loss reports and margins per variant Cloud Inventory Inventory POS App Stock Module Automated notification of critical stock Distribution Omnichannel Channel Integration: Aggregator Sync stock across marketplaces.

**Table 1. Digitalization and Operational Action Plan Matrix**

| Operational Elements | Work Program | Technology / Tools | Expected Output |
|---|---|---|---|
| Production | Drying Mechanization | Dehydrator Industri | 24/7 production without weather interruptions, zero backlog |
| HR | Function Specialization | Attendance & Task Management Application | Owner focuses on strategy; staff work independently according to SOPs |
| Finance | Transaction Digitization | POS (Mocha) & Jurnal.id | Real-time profit and loss report and margin per variant |
| Inventory | Cloud Inventory | POS App Stock Module | Automatic notifications of critical stock |
| Distribution | Channel Integration | Omnichannel Aggregator | Stock synchronization across marketplaces |

Source: Processed by the authors based on the operational planning framework and field observations conducted in the Salmontok MSME business development study

Operational-Based Strategic Partnership Plan

To support large-scale operations, Salmontok runs two main forms of partnerships:

1. Technical Partnership (R&D)

Collaborate with food laboratories to conduct regular nutrition and shelf life tests. The test results are integrated in the QR code on the packaging, so consumers can access educational information directly.

2. Logistics Distribution Partnership

Cooperation with forwarding companies (such as J&T and SiCepat) through the following schemes:

- Scheduled pick-up
- Crushed products insurance

This strategy aims to maintain brand reputation in e-commerce channels and increase customer trust.

**Implementation Schedule (Operational Roadmap)**

Salmontok Operational Implementation Roadmap Table (First 6 Months) Focus Time Period Main Activity Stages Expected Output Months 1–2 Infrastructure Purchase and installation of industrial dehydrator machines and integration of cloud-based POS and accounting systems Stable production capacity, integrated financial and transaction recording system 3–4 Months Standardization HR training using new SOPs and signing of long-term raw material supply contracts Uniform production process, quality maintained, and raw material supply safe Months 5–6 Scalding Launch of innovative product variants (Sambal Matah and Skipjack Smoke) and activation of distribution to Bali, Surabaya, and Jakarta Increase in sales volume and expand regional market reach.

**Table 2. Operational Implementation Roadmap (First 6 Months)**

| Time Period | Focus Stages | Main Activities | Expected Output |
|---|---|---|---|
| Months 1–2 | Infrastructure | Purchase and installation of industrial dehydrator machines and integration of cloud-based POS and accounting systems | Stable production capacity, integrated financial and transaction recording system |
| Months 3–4 | Standardization | HR training using new SOPs and signing of long-term raw material supply contracts | Uniform production process, quality maintained, and safe raw material supply |
| Months 5–6 | Scalding | Launch of innovation product variants (Sambal Matah and Skipjack Asap) and activation of distribution to Bali, Surabaya, and Jakarta | Increased sales volume and expansion of regional market reach |

Source: Compiled by the authors based on the Salmontok operational implementation roadmap during the initial six-month business development phase

**Operational Monitoring and Evaluation (KPI Dashboard)**

Monitoring and evaluation of Salmontok's operations is carried out periodically every month through the Executive Dashboard which is integrated with POS systems, inventory, and digital sales channels. The main objective of this evaluation is to ensure operational effectiveness, cost efficiency, and customer satisfaction in line with business growth and brand strengthening targets.

**Table 3. Operational Key Performance Indicators (KPIs)**

| No. | KPI | Operational Definition | Measurement Method | Target | Monitoring Tools | Corrective Action |
|---|---|---|---|---|---|---|
| 1 | Fulfilment Rate | The percentage of orders that can be fulfilled on time and according to the quantity without delay due to lack of stock | (Order quantity fulfilled ÷ Total incoming order) × 100% | 100% | Omnichannel dashboard (Shopee, Tokopedia, WhatsApp Business) integrated with inventory | Adjustment of safety stock and rescheduling of production if <98% achievement |
| 2 | Cost of Goods Sold (COGS) | Total direct cost of production which includes raw materials, direct labor, energy, and packaging | Calculation of production costs per batch through an accounting system | Cost and waste efficiency ≤5% per batch | POS and cloud accounting systems (Jurnal.id) | Production process audits, supplier evaluations, and recipe optimization if COGS increases |
| 3 | Customer Satisfaction Score (CSS) | Customer satisfaction level based on product ratings and reviews on the marketplace | Average rating score and customer review analysis | ≥4.8 | WhatsApp Business marketplace and CRM review dashboard | |

Source: Developed by the authors based on operational performance indicators and monitoring mechanisms used in MSME operational management

**KPI No. Operational Definition Monitoring Tool Target Measurement Method Corrective Action**

1. Fulfillment Rate The percentage of orders that can be fulfilled on time and according to the quantity without delay due to lack of stock (Order quantity fulfilled ÷ Total incoming order) × 100% 100% Omnichannel dashboard (Shopee, Tokopedia, WhatsApp

Business) integrated with inventory Adjustment of safety stock and rescheduling of production if <98% is achieved.

2. Cost of Goods Sold (COGS) Total direct cost of production which includes raw materials, direct labor, energy, and packaging Calculation of production cost per batch through an accounting system Cost and waste efficiency ≤5% per batch POS and cloud accounting systems (Jurnal.id) Audit of production processes, supplier evaluation, and recipe optimization if COGS increases.
3. Customer Satisfaction Score (CSS) The level of customer satisfaction based on product ratings and reviews on the marketplace Average customer review rating and analysis score ≥4.8 WhatsApp Business marketplace and CRM review dashboard.
4. Evaluation of Salmontok's operational performance is carried out regularly at the end of every month through a KPI Dashboard that is integrated with production, financial, and sales channel systems. The evaluation process involves business owners along with operational and financial staff to ensure that each key performance indicator (KPI) is analyzed comprehensively and objectively.

The results of the evaluation are summarized in the monthly operational report which contains several main aspects, namely:
(1) comparison of KPI achievements with the targets that have been set,
(2) identification of operational deviations that occurred during the evaluation period, and
(3) Formulation of a corrective action plan that will be implemented in the following month.

The KPI dashboard functions as a strategic decision-making tool, especially in determining production capacity adjustments, operational and marketing budget allocation, and setting market expansion priorities. With this approach, managerial decisions are not only based on intuition, but on measurable, documented actual, data. Furthermore, the implementation of a structured KPI Dashboard allows Salmontok to build a data-driven decision-making culture in all operational lines. This approach ensures that business growth runs in a controlled, efficient, and sustainable manner, in line with Salmontok's transformation goals from weather-dependent MSMEs to a modern manufacturing system that is ready to be developed on a larger scale.

With this operational plan, Salmontok ensures that every rupiah of the investment of Rp850,000,000 is used efficiently to build a scalable, standardized, and sustainable business system, while supporting market expansion and brand strengthening in the long term.

**Financial Plan**

The financial planning in Salmontok's business plan is prepared to ensure that the business development strategy has an adequate funding base, a measurable cost structure, and healthy cash flow management over a projected 60-month horizon. The discussion in this section includes the capital structure and initial cash as the main source of funding, initial investment (CAPEX) as the foundation of operational readiness, projected fixed operating costs (OPEX) reflecting strengthening organizational capacity, working capital policies through cash cycle adjustments (receivables, inventories, and accounts receivable), as well as taxation and financing strategies to ensure compliance, efficiency, and financial sustainability as the business grows. For a full table describing the financial plan, it is in the appendix.

**Capital Structure and Initial Investment**

Salmontok's business development plan is prepared with a strong capital foundation in the early stages to ensure the availability of operational liquidity and investment readiness at

the beginning of the period. Financial projections are prepared in a 60-month horizon with an equity-based funding scheme, accompanied by MSME tax assumptions as well as working capital and capital expenditure policies set from the beginning.

1. Initial capitalization

At the beginning of operations, Salmontok had an initial cash of IDR 850,000,000. This initial cash was entirely derived from a total capital (equity) of IDR 850,000,000, which consisted of an initial capital of IDR 50,000,000, and an additional capital of IDR 800,000,000.

With this structure, the company's initial funding is not dependent on debt and the entire equity fund is used as an initial balance to support operational needs as well as initial investment.

2. Initial Investment (CAPEX)

Capital expenditure (CAPEX) is carried out one-time in the first month to build operational readiness and support growth strategies. The details are:

- QC & Storage: IDR 100,000,000 with an economical life of 60 months,
- Branding & IT: IDR 250,000,000 with an economic lifespan of 48 months,
- Additional equipment: IDR 400,000,000 with an economical life of 60 months.

The total initial investment shows that Salmontok's business development is capital intensive in the early stages, especially to ensure quality readiness (QC & storage), strengthen brand and digital infrastructure (branding & IT), and increase operational capacity (equipment). This investment is the foundation for the company to expand sales and operations in a more structured manner during the projection period.

**Fixed Operational Projections**

In the financial plan for Salmontok business development, there is a significant increase in operational costs from the first to the fifth year. This increase reflects the strategy of strengthening business capacity, especially through the addition of personnel and cost adjustments based on inflation assumptions per cost item.

The fixed OPEX component (Rp/month) is projected to increase as the operational scale and number of personnel increases, from 1 person in the first year to 7 people in the fifth year. In addition to organizational growth, the increase in costs is also influenced by inflation according to assumptions per cost post.

a. Salary & Administration

Salary & administration is assumed to be IDR 5,500,000 with inflation of 12% per year, thus increasing from IDR 5,500,000 per month in the first year to IDR 60,580,495 per month in the fifth year. This salary inflation assumption is used to maintain remuneration competitiveness and support employee retention.

**Table 4. Details of Initial Investment Assumptions (CAPEX)**

| Item Detail | Reference | Nilai (Rp) |
|---|---|---|
| **QC & Storage** | | |
| Chest freezer commercial 500–600 L (2 unit) | GEA / equivalent | 45.000.000 |

| | | |
|---|---|---|
| 2-door chiller/refrigerator (QC sample & material) | Hoshizaki / GEA / equivalent | 25.000.000 |
| Warehouse rack + plastic pallet (dry storage) | Lokal | 15.000.000 |
| Precision scales + floor scales | Camry / Sonic / equivalent | 5.000.000 |
| Data logger suhu + hygrometer | Local Vendor | 3.000.000 |
| APAR + safety kit | Lokal | 7.000.000 |
| Subtotal QC & Storage | | 100.000.000 |
| Branding & IT | | |
| Brand strategy + brand identity system (logo, guideline, key visual) | Agency/designer | 45.000.000 |
| 3 variant packaging design + print-ready artwork final | Agency/ designer | 40.000.000 |
| Packaging prototype + dummy + trial print | Printing vendors | 20.000.000 |
| Professional product photos + short-form videos (initial batch) | Studio/vendor | 35.000.000 |
| Website/landing + SEO basic + domain/hosting (a year) | Vendor | 25.000.000 |
| Marketplace and e-commerce operations setup (catalog, templates, SOPs, logistics integration) | Vendor | 25.000.000 |
| Laptop/PC admin (2 unit) | Lenovo/Dell/Asus / equivalent | 20.000.000 |
| Printer + scanner + label printer thermal | Epson/Brother / equivalent | 10.000.000 |
| Inventory/POS software + accounting (setup and initial licensing) | Journal/Majoo/Pawon / equivalent | 30.000.000 |
| Branding Subtotal & IT | | 250.000.000 |
| Additional equipment | | |

| | | |
|---|---|---|
| Deep fryer industrial (batch) | Local Fabricated (custom) | 110.000.000 |
| Spinner / de-oiling machine | Local Fabricated (custom) | 35.000.000 |
| Seasoning tumbler/mixer | Local Fabricated (custom) | 35.000.000 |
| Vertical packaging machine (FFS) | Getra / Powerpack / Local vendor | 150.000.000 |
| Nitrogen flushing set (shelf life) | Gas supplier + Local kit | 35.000.000 |
| Metal detector (food-grade) | Mettler Toledo / equivalent | 45.000.000 |
| Compressor + pneumatic support | Swan/Shimizu / equivalent | 15.000.000 |
| Renovation & utility systems (electricity/range hood/exhaust/drainage) | Local Vendor | 40.000.000 |
| Subtotal: Additional equipment | | 400.000.000 |

Source: Compiled by the authors based on investment planning data and market price references for equipment and infrastructure used in Salmontok's production system

**Table 5. Salary Cost Assumption Details**

| Item | Rupiah Assumption | Assumption of Increase | Y1 | Y2 | Y3 | Y4 | Y5 |
|---|---|---|---|---|---|---|---|
| **Personnel Salary** | | | | | | | |
| Business Owner/CEO | 30,000,000 | 12.5% | | | | 30,000,000 | 33,750,000 |
| Production Coordinator | 6,500,000 | 12.5% | 6,500,000 | 7,312,500 | 8,226,563 | 9,254,883 | 10,411,743 |
| Recruitment | | | 1 | | | | |
| Production staff | 4,500,000 | 12.5% | | 4,500,000 | 9,562,500 | 10,757,813 | 12,102,539 |
| Recruitment | | | – | 1 | 1 | | – |
| Administrative & finance staff | 4,500,000 | 12.5% | | 4,500,000 | 5,062,500 | 5,695,313 | 10,097,227 |
| Recruitment | | | – | | 1 | | |
| Administrative & finance staff | 4,500,000 | 12.5% | 4,500,000 | 5,062,500 | 5,695,313 | 10,097,227 | 12,270,630 |

| | | | | | |
|---|---|---|---|---|---|
| Recruitment | 1 | | | 1 | |
| Total | 11,000,000 | 21,375,000 | 28,546,875 | 66,615,234 | 79,442,139 |

Source: Processed by the authors based on salary structure planning and human resource projections within the Salmontok business development strategy

b. Operations & Utilities

Operating & utility costs are assumed to increase gradually. Utility costs are assumed to be IDR 1,000,000 with inflation of 6% per year, thus increasing to IDR 1,262,477 per month in the fifth year. The ATK fee is assumed to be IDR 500,000 and increases to IDR 631,238 per month in the fifth year. The cost of renting a shophouse is assumed to start in the second year, assuming an initial price of IDR 2,000,000 per month. In addition, it is assumed that since the fourth year, professional services have been required at a cost of up to IDR 2,000,000 per month. Miscellaneous costs are assumed to be Rp 1,000,000 per month in the first year. So that the total cost per month in the first year is IDR 2,500,000 and increases to IDR 8,253,732.

**Table 6. Operational Cost Assumption Details**

| Item | Rupiah Assumption | Assumption of Increase | Y1 | Y2 | Y3 | Y4 | Y5 |
|---|---|---|---|---|---|---|---|
| | 2,500,000 | 6.0% | | | | | |
| | 1,000,000 | | | | | | |
| | 500,000 | | | | | | |
| | 2,000,000 | | | | | | |
| | 1,000,000 | | | | | | |
| Operating Costs per Month | | | 2,500,000 | 5,150,000 | 5,459,000 | 7,786,540 | 8,253,732 |

Source: Compiled by the authors based on projected operational cost assumptions and financial planning analysis for the Salmontok MSME business plan

c. Cost Increase Assumptions

- Utilities & overhead are assumed to increase by 6.0% per annum to represent a gradual increase in general operating costs. This figure is taken from the assumption of Indonesia's average annual inflation between 2012 and 2025, which is 3.8%; coupled with a standard deviation of 2.2%. Thus, the assumption of the cost increase is 6.0%

**Table 7. Historical Data on Indonesian Inflation 2012-2025**

| Year | Inflation Target | Actual |
|---|---|---|
| 2012 | 4.5% | 4.3% |
| 2013 | 4.5% | 8.4% |
| 2014 | 4.5% | 8.4% |
| 2015 | 4.0% | 3.4% |

| | | |
|---|---|---|
| 2016 | 4.0% | 3.0% |
| 2017 | 4.0% | 3.6% |
| 2018 | 3.5% | 3.1% |
| 2019 | 3.5% | 2.7% |
| 2020 | 3.0% | 1.7% |
| 2021 | 3.0% | 1.9% |
| 2022 | 3.0% | 5.5% |
| 2023 | 3.0% | 2.6% |
| 2024 | 2.5% | 1.6% |
| 2025 | 2.5% | 2.9% |

Source: Adapted from Indonesia's inflation data published by Bank Indonesia and the Central Statistics Agency (BPS), processed by the authors

- An average salary increase is assumed to be 12.5% per year to accommodate increased labor costs and maintain the sustainability of employee retention. This increase is taken from Indonesia's average GDP growth in 2012-2025 of 4.5%, coupled with a standard deviation of 2.0% and an inflation assumption of 6.0%. Thus, the assumption of a total salary increase is 12.5%.

**Table 8. Indonesia's GDP Growth Data 2012-2025**

| Tear | PDB Growth |
|---|---|
| 2012 | 6.0% |
| 2013 | 5.6% |
| 2014 | 5.0% |
| 2015 | 4.9% |
| 2016 | 5.0% |
| 2017 | 5.1% |
| 2018 | 5.2% |

Source: Adapted from Indonesia's GDP growth statistics compiled from national economic reports and processed by the authors

**Working Capital Management**

In this projection, the working capital policy is determined based on the following cash cycle assumptions: 30 days of receivables (Days AR), inventory time (Days AP) of 30 days, and accounts payable time (Days AP) of 35 days. This assumption illustrates that the company provides a receivables collection and inventory turnover period of one month each, while payments to suppliers are made on a slightly longer tenor. The structure supports liquidity because the accounts payable period is longer than the receivables and inventory periods, thus helping to reduce operational cash requirements.

The cash flow efficiency of Salmontok's financial plan is measured through the following three indicators:

- Receivables Time: 30 days. Salmontok provides credit terms of about one month to customers/partners.
- Stocking Time: 30 days. Inventory is maintained to meet operational needs for about one month.
- Time of Accounts Good: 35 days. Salmontok pays suppliers a little later than the time it takes to collect receivables.

With Days AP (35 days) being larger than Days AR (30 days), Salmontok's cash cycle can be categorized as relatively healthy. The 5-day difference indicates a lag in the time of operational funding from suppliers before the company receives cash from customers, which in practice helps to maintain cash flow and reduce the pressure on working capital requirements

**Tax Strategy**

Salmontok uses a final rate of 0.5% of turnover, in accordance with the Final Income Tax scheme PP 23/2018 (or an update in the HPP Law) for MSMEs until the third year, where the Company's turnover is still below Rp 4.8 billion per year. In the fourth and fifth years, Salmontok is assumed to use Income Tax 25 for Companies where the rate charged is 22%.

**Sustainability Plan**

Salmontok's sustainability plan is designed to ensure business development not only generates sales growth, but also contributes to the social, economic, and environmental dimensions in a measurable way. In the context of processed food MSMEs, sustainability is not understood as an additional activity, but rather as a way to manage production, labor, and supply chains to be efficient, safe, and responsible.

The framework used refers to the Sustainable Development Goals (SDGs), especially SDG 8 (Decent Work and Economic Growth) and SDG 12 (Sustainable Production and Consumption), as a reference for formulating programs, performance indicators, and monitoring mechanisms. Specifically, Salmontok's character as a processed product based on marine products demands two main sustainability focuses:

a. Creating decent jobs and increasing the productivity of MSMEs through a work system and skill development (SDG 8).
b. Efficient and responsible production through waste control, improved resource efficiency, and product information to consumers (SDG 12).

**Business Feasibility Analysis of Production and Operation Aspects**

The feasibility analysis of production and operational aspects is carried out to assess Salmontok's ability to carry out the production process effectively, stably, and sustainably to support business development plans. This assessment includes the technical feasibility of the production process, capacity management, consistency of product quality, operational risk control, and the readiness of the production system in response to increasing market demand.

Based on existing conditions, the Salmontok production process has technically been proven to be able to produce products that are accepted by the market. This is demonstrated by the sustainability of sales and the increase in demand over time. Thus, in terms of technical feasibility, this business does not face structural technological obstacles. The existing

production system is in accordance with product characteristics and market needs, so it does not require fundamental process changes.

However, further analysis showed that there were limitations in production capacity and process stability, mainly due to the dependence on manual processes and weather conditions at the drying stage of salmon skins. This condition causes output variability and has the potential to affect product quality consistency. From the perspective of operational management, these problems reflect the existence of capacity constraints and process variability that are commonly experienced by MSMEs in the growth phase (Heizer, Render, & Munson, 2020).

The analysis process is then focused on assessing whether these limitations are fatal or can be mitigated. The plan to use semi-mechanical dryers on the MSME scale is considered feasible because it can improve the stability of the production process, reduce dependence on the weather, and maintain quality consistency without causing a disproportionate investment burden. This approach is in line with the concept of appropriate technology, namely the use of technology that is in accordance with the business scale, financial capacity, and operational capabilities of MSMEs.

In addition, the plan to implement written standard operating procedures (SOPs) at all stages of production strengthens Salmontok's operational viability. SOPs function as quality control instruments, work guidelines, and operational risk mitigation mechanisms. In the food industry, the existence of SOPs is a key factor in maintaining food safety, process efficiency, and product consistency.

In terms of supply chain, the main raw material in the form of salmon skin has the characteristics of perishability and its availability depends on the supplier. These risks are analyzed as operational risks that can be controlled through supplier diversification, strengthening medium-term relationships with key suppliers, and managing a more controlled raw material storage system. Christopher (2020) emphasized that supply chain reliability is an important element in maintaining operational continuity and reducing the risk of production disruptions.

Based on the entire analysis process, Salmontok's production and operations aspects are considered WORTHY OF DEVELOPMENT, because the existing limitations are operational and transitional, and have realistic and measurable solutions.

**Analysis of the feasibility of Financial Aspects Business (NPV, IRR, Payback Period, BEP)**

a. Valuation Analysis of Salmontok Business Development

The assessment of financial aspects is carried out to assess the feasibility of Salmontok's business plan through four main indicators, namely Net Present Value (NPV), Internal Rate of Return (IRR), Payback Period, and Break-Even Point (BEP). All cash flows in the projection are discounted using a discount rate of 25% to reflect the business risk profile. In addition, to capture the value of business continuity after the projection period, the assumption of terminal growth of 1% is used in the calculation of terminal value. With this framework, the following feasibility indicators are analyzed.

**Table 9. Summary of Valuation and Business Feasibility**

| Aspek Keuangan | Satuan | Nilai | Keterangan |
|---|---|---|---|
| Payback Period | Waktu | 3 Tahun, 9 bulan | ***Layak*** |
| IRR | *%* | *33.00%* | ***Layak*** |
| NPV | Rupiah | 231,571,868 | ***Layak*** |
| Cash - BEP | | | |
| Y1 | Qty | 41,373 | |
| Y2 | Qty | 50,596 | |
| Y3 | Qty | 60,227 | |
| Y4 | Qty | 116,224 | |
| Y5 | Qty | 120,270 | |

Source: Calculated and compiled by the authors based on financial feasibility analysis using NPV, IRR, Payback Period, and BEP indicators

**Net Present Value (NPV)**

NPV describes the difference between the present value of all cash inflows and the present value of all cash outflows during the analysis period. With a discount rate of 25% and terminal growth of 1%, the calculation results show an NPV of IDR 231,571,868. A positive NPV value indicates that Salmontok's projected cash flow is able to create added value after taking into account the value of time money, and business risk. Thus, based on the NPV indicator, Salmontok's business plan is considered feasible.

**Internal Rate of Return (IRR)**

IRR is the rate of return that makes NPV equal to zero. The results of the analysis showed an IRR of 33.00%. Interpretively, IRR reflects the ability of a business to generate an internal rate of return from projected cash flows. Considering the 25% discount rate as the minimum rate of return that reflects the risk, the IRR of 33.00% is well above that level, so Salmontok's business plan is considered feasible from an IRR perspective.

**Payback Period**

Payback Period measures the time it takes to return the initial investment through the accumulation of net cash flow. The calculation results show a Payback Period of 3 years and 9 months. This means that the initial investment is expected to return to the range before the end of the 4th year of operation. This period of return shows the ability of the business to recover investment within a time horizon that is still acceptable for MSME scale, so that in terms of Payback Period, Salmontok's business plan is considered feasible.

***Cash* Break-Even Point (BEP)**

*Cash* BEP shows the minimum amount of sales that must be achieved so that the total revenue can cover all cash costs, so that the Company's *cash flow* can be positive and the Company's operations are not disrupted. In this analysis, BEP is expressed as sales volume (Qty) per year as follows:

Y1: 41,373 units

Y2: 50,596 units

Y3: 60,227 units

Y4: 116,224 units

Y5: 120,270 units

The increase *in Cash* BEP from year to year indicates that the minimum sales volume target increases in line with the development of the business plan and the need to close the cost structure. *Cash* BEP can be used as a managerial reference for cost control and the setting of annual sales targets so that sales realization is above the break-even point of the Company's cash flow.

**Conclusion of Financial Feasibility**

Based on these four indicators, Salmontok's business plan shows feasible results, with a summary:

1. Positive NPV of IDR 231,571,868 (using a discount rate of 25% and terminal growth of 1%) which shows that the project creates added value,
2. The IRR of 33.00% which is above the 25% discount rate thus showing strong returns,
3. Payback Period of 3 years and 9 months which shows a return on investment within a reasonable time horizon, as well as
4. BEP as a reference for the minimum annual sales target (Y1-Y5) so that the business does not lose money.

**Comprehensive Analysis of Salmontok Business Development Valuation**

**Table 10. Summary of Salmontok Financial Projections**

| Profit & Loss | Y1 | Y2 | Y3 | Y4 | Y5 |
|---|---|---|---|---|---|
| Distributor revenue | 886,080,000 | 1,703,252,304 | 2,210,336,613 | 2,640,158,282 | 3,155,359,559 |
| Ecommerce | 318,624,000 | 1,380,840,000 | 2,087,500,750 | 3,315,267,719 | 5,379,135,214 |
| **Revenue** | **1,204,704,000** | **3,084,092,304** | **4,297,837,362** | **5,955,426,000** | **8,534,494,774** |
| COGS | (678,477,600) | (1,704,122,640) | (2,389,595,440) | (3,318,700,241) | (4,762,989,323) |
| **Gross Profit** | **526,226,400** | **1,379,969,664** | **1,908,241,922** | **2,636,725,759** | **3,771,505,451** |
| *GP Margin* | *43.7%* | *44.7%* | *44.4%* | *44.3%* | *44.2%* |
| Total Cash Cost | (387,009,600) | (866,076,461) | (1,163,262,935) | (1,918,143,107) | (2,490,292,647) |
| **EBITDA** | **139,216,800** | **513,893,203** | **744,978,987** | **718,582,652** | **1,281,212,804** |
| *EBITDA Margin* | *11.6%* | *16.7%* | *17.3%* | *12.1%* | *15.0%* |
| Depresiasi | (162,500,000) | (162,500,000) | (162,500,000) | (162,500,000) | (100,000,000) |
| **EBIT** | **(23,283,200)** | **351,393,203** | **582,478,987** | **556,082,652** | **1,181,212,804** |
| *EBIT Margin* | | | | | |
| Bunga | - | - | - | - | - |
| Pajak | (6,023,520) | (15,420,462) | (21,489,187) | (176,295,619) | (337,065,253) |
| **Laba_Bersih** | **(28,682,720)** | **335,972,742** | **560,989,800** | **379,787,033** | **844,147,551** |
| **Cashflow Calculation** | | | | | |
| *AR* | 144,888,000 | 294,880,128 | 397,633,845 | 559,682,455 | 814,651,200 |
| *Inventory* | 80,553,600 | 163,061,604 | 220,606,299 | 311,098,785 | 453,420,141 |
| *AP* | 93,979,200 | 190,238,538 | 257,374,016 | 362,948,583 | 528,990,165 |
| **NWC** | **131,462,400** | **267,703,194** | **360,866,129** | **507,832,658** | **739,081,177** |
| Delta NWC - Cash req. for Working Capital | 131,462,400 | 136,240,794 | 93,162,935 | 146,966,529 | 231,248,519 |
| **OCF** | 2,354,880 | 362,231,948 | 630,326,865 | 395,320,504 | 712,899,033 |

Source: Processed by the authors based on Salmontok's financial projection model and business valuation analysis for the five-year development period

The analysis of the valuation report and financial dashboard shows a comprehensive picture of Salmontok's ability to create economic value through multi-channel revenue growth (distributors and e-commerce), production cost control, and strengthening of operational cash flow. The performance pattern in the Y1–Y5 projections shows that the initial expansion strategy was followed by increased profitability and stronger cash flow in the following years.

**Profit & Loss: Revenue Growth and Profitability**

Revenue growth is driven by two main channels.

Total revenue increased from IDR 1,204,704,000 (Y1) to IDR 8,534,494,774 (Y5). The main drivers are:

- Distributor revenue grew from IDR 886,080,000 (Y1) to IDR 3,155,359,559 (Y5).
- E-commerce increased more aggressively from IDR 318,624,000 (Y1) to IDR 5,379,135,214 (Y5).

This confirms that digital channel expansion plans contribute significant growth to the scale of the business.

Gross Profit has consistently increased with a stable GP Margin of ~44%. Gross profit increased from IDR 526,226,400 (Y1) to IDR 3,771,505,451 (Y5). At the same time, GP margins were relatively stable in the range of 43.7%–44.7%, indicating that despite the growth in volume, the production margin structure was maintained and not materially eroded by the increase in scale.

EBITDA grew strongly, with margins that had been depressed and then improved. EBITDA increased from IDR 139,216,800 (Y1) to IDR 1,281,212,804 (Y5). EBITDA margin moved from 11.6% (Y1) to 15.0% (Y5). This pattern is prevalent in the expansion phase: the increase in total cash costs follows the growth strategy, but efficiencies begin to take shape on a more mature scale so that margins increase.

EBIT and Net Profit also increased significantly. EBIT increased from negative IDR 23,283,200 (Y1) to positive IDR 1,181,212,804 (Y5), after depreciation (Y1-Y4 IDR 162,500,000; Y5 IDR 100,000,000).

Net profit increased from negative IDR 28,682,720 (Y1) to IDR 844,147,551 (Y5). Taxes also increased in line with profit growth from IDR 6,023,520 (Y1) to IDR 337,065,253 (Y5), showing an even greater profit performance.

**Cashflow: Working Capital Requirements, OCF, CAPEX, and Cash Change**

Working capital (NWC) grows with the scale of operations. NWC increased from IDR 131,462,400 (Y1) to IDR 739,081,177 (Y5). The working capital component (AR, inventory, AP) also increased, in line with the increase in sales and operational needs.

Cash requirement for working capital (ΔNWC) remained under control relative to growth. ΔNWC (*cash requirement for working capital*) was recorded at IDR 131,462,400 (Y1), IDR 136,240,794 (Y2), IDR 93,162,935 (Y3), IDR 146,966,529 (Y4), and IDR 231,248,519 (Y5). Although the nominal increase in Y4–Y5, this is consistent with revenue that has also increased significantly, so that managerically ΔNWC becomes an important control point so that expansion does not "lock" excess cash in receivables and inventories.

Operating Cash Flow (OCF) grew strongly year over year. OCF increased from IDR 2,354,880 (Y1) to IDR 712,899,033 (Y5). This shows that even as the business grows, cash flow from operations continues to increase and becomes the main basis for value formation.

Initial investment (CAPEX) causes negative cash changes in the first year, then turns positive. There was a CAPEX of IDR 750,000,000 in Y1 and no CAPEX recorded in Y2–Y5. Impact:

- Net Cash Change Y1 became negative IDR 747,645,120, reflecting the initial investment phase.
- After that, *the Net Cash Change* was positive and increased at Y2 IDR 362,231,948, Y3 IDR 630,326,865, Y4 IDR 395,320,504, Y5 IDR 712,899,033.

The final cash position increased significantly, strengthening internal funding capacity. Final cash moved from IDR 102,354,880 (Y1) to IDR 2,203,133,230 (Y5). This shows that after the initial investment phase, the business is able to generate large cash and strengthens flexibility for further expansion (e.g. production, marketing, or channel development capacity).

**Relationship with Business Valuation and Development**

Overall, the Profit & Loss and Cashflow dashboards show that the business development strategy (channel expansion and scale-up) is yielding, very strong revenue growth, stable gross margins, increased EBITDA and net profit, and significantly increased operating cash flow after the initial CAPEX.

This combination of profitability and strengthening cash flow is the main basis in the assessment of the economic value of Salmontok's business, as the company's value is fundamentally supported by the ability to generate sustainable cash flows and a stronger cash position at the end of the projection period.

## CONCLUSION

Based on the results of data analysis, financial simulations, and discussions presented in the previous chapters, this study successfully answers the formulated research problems through several important conclusions. The preparation of Salmontok's financial plan is designed effectively through an equity-based capital structure amounting to IDR 850,000,000, which eliminates the burden of interest-bearing debt during the early stage of business development. This financial strategy emphasizes a healthy working capital policy supported by an efficient cash cycle, reflected in 30-day Accounts Receivable (AR) Days and 35-day Accounts Payable (AP) Days, creating a beneficial liquidity gap that can be utilized to support operational activities. In addition, the allocation of significant investment funds in branding, information technology, and production equipment during the first year becomes a strategic foundation for transforming the business scale from a micro enterprise into a manufacturing-oriented business that is prepared to expand nationally through hybrid distribution channels. Furthermore, the strategy for increasing production capacity and efficiency is carried out through a transformation from weather-dependent production to a Smart-Manufacturing MSME model by implementing drying mechanization technology in the form of a Digital Industrial Dehydrator. This technological adoption successfully overcomes infrastructure limitations and significantly increases production capacity to 4,500 units per month in the first year, with a projected growth target of 20,000 units per month in the fifth year. As a result, Salmontok is able to reduce the demand backlog by 52.4%. The implementation of a Linear Flow production workflow combined with standardized digital Standard Operating Procedures (SOPs) further improves production efficiency by approximately 20%, while maintaining a controlled waste level of below 5%. In addition, the analysis of investment visibility, turnover projections, and profitability over a five-year period indicates that the Salmontok business development plan has strong financial prospects. The company's turnover is projected to grow significantly from IDR 1.2 billion in the first year to IDR 8.5 billion in the fifth year, primarily driven by sales acceleration through e-commerce channels. From a profitability perspective, the company is expected to achieve a net profit of IDR 844 million in the fifth year with a continuously improving EBITDA margin of approximately 15%. The financial feasibility of the project is also confirmed through a positive Net Present Value (NPV) of IDR 231,571,868, an Internal Rate of Return (IRR) of 33.00% which exceeds the 25% discount rate, and a Payback Period of 3 years and 9 months. These indicators demonstrate that Salmontok's business development plan is economically feasible and capable of generating sustainable added value for investors and capital owners in the long term.

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