



Business Model Canvas Analysis of MSME Beverage SemJoy

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Abstract: This study analyzes the business model and sustainability of SemJoy, a micro, small, and medium enterprise (MSME) beverage brand based in Batam, Indonesia, using the Business Model Canvas (BMC) framework. SemJoy offers an innovative drink made from kiamboi (preserved plum), calamansi, and lychee jelly, producing a distinctive combination of sour, sweet, and salty flavors tailored to tropical consumer preferences. Employing a qualitative participatory approach, the research integrates outreach, mentoring, BMC analysis, SWOT analysis, and financial evaluation to map SemJoy's strategic position and performance. The BMC findings show that SemJoy's strengths lie in its unique value proposition, affordable and simple production process, use of natural ingredients without preservatives, and localized digital marketing through social media. Key partners include local raw material suppliers and small retailers, while customer segments consist mainly of students, campus communities, and the general public. SWOT analysis indicates strong product differentiation and market opportunities in the growing demand for refreshing beverages, but also highlights challenges such as short shelf life, price volatility of raw materials, and the risk of product imitation. Financial analysis reveals a total sales revenue of IDR 2,480,500 with production costs of IDR 1,412,000, resulting in a net profit of IDR 1,068,500 and a Net Profit Margin (NPM) of 43.08%. The Break-Even Point (BEP) of 29 units demonstrates high economic feasibility. Overall, the study concludes that SemJoy has a viable and competitive business model, and that future sustainability will depend on continuous innovation, improved packaging, supply chain resilience, and strategic partnerships.

Keywords: Business Model Canvas, MSME, Beverage Innovation, SemJoy, Product Development.

INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) constitute one of the most critical pillars of Indonesia's economic architecture, contributing significantly to national productivity, employment creation, and community welfare. According to data from the Ministry of Cooperatives and SMEs, MSMEs account for approximately 60% of Indonesia's Gross Domestic Product (GDP) and generate nearly 97% of total employment nationwide (Abdulloh et al., 2024). This dominant economic presence demonstrates the essential role of MSMEs not only as economic actors but also as drivers of social resilience, innovation diffusion, and the democratization of entrepreneurial opportunities. Among the various MSME subsectors, the food and beverage (F&B) industry stands out for its rapid growth, strong adaptability to consumer trends, and continuous product innovation. The beverage segment, in particular, has experienced notable expansion as



consumers increasingly seek unique, refreshing, and culturally relevant products that reflect both local identity and global influences (Rahmawati & Rahayu, 2022; Ghazali & Yusuf, 2022).

Batam City—an economic hub within the Indonesia–Malaysia–Singapore Growth Triangle—has emerged as a competitive arena for beverage startups and MSMEs. Its demographic diversity, active youth population, and digital ecosystem provide fertile conditions for the development of niche beverage products. Within this competitive landscape, SemJoy, a local MSME beverage brand, has attracted attention for its innovative formulation based on kiamboi (a preserved salted plum), calamansi, and lychee jelly. This combination creates a distinctive blend of sour, sweet, and salty flavors that resonates strongly with consumer preferences in tropical climates. In line with recent consumer trends emphasizing artisanal experiences, natural ingredients, and sensory novelty, SemJoy’s product exemplifies how MSMEs can leverage local ingredients to create differentiated value propositions (Kotler & Keller, 2016; Lemke & Petersen, 2019).

Despite its promising start, the development of SemJoy raises several strategic issues that warrant systematic examination. First, consumer awareness of kiamboi-based beverages remains unclear, particularly as kiamboi is not widely used as a primary ingredient in mainstream Indonesian beverages. Ingredient familiarity affects consumer acceptance, perceived value, and brand recognition (Tece, 2010; Morris et al., 2005). Second, maintaining consistent flavor and product quality poses operational challenges because natural ingredients such as calamansi and kiamboi are subject to seasonal variation, fluctuating acidity, and inconsistent supply quality. Product consistency is vital for MSMEs because it directly influences customer satisfaction, repeat purchases, and long-term brand loyalty (Kim & Mauborgne, 2014).

Third, SemJoy must strengthen the sustainability of its supply chain to ensure the availability of high-quality raw materials at affordable prices. MSMEs often operate with limited bargaining power in procurement processes, which increases their vulnerability to fluctuating ingredient costs and supply shortages (Putra & Sari, 2023). Finally, there is an urgent need to analyze how SemJoy’s operations, value proposition, customer engagement, and financial structure align strategically within the Business Model Canvas (BMC) framework. The BMC is widely



recognized as an effective analytical tool for assessing business model components and enhancing strategic clarity for MSMEs (Osterwalder & Pigneur, 2010; Chesbrough, 2010).

Addressing these issues requires a structured set of research objectives. The first objective is to introduce a beverage concept that differentiates itself from competitors by leveraging kiamboi as a culturally distinctive ingredient and constructing a unique taste profile rarely found in the Indonesian beverage sector. Product differentiation is a key strategy for MSMEs aiming to compete in saturated markets and build long-term customer relationships (Chesbrough, 2010; Amit & Zott, 2015). The second objective is to conduct periodic testing and refinement of SemJoy's product formulation and production processes to ensure consistent quality. This is aligned with best practices in MSME operational management, which emphasize continuous improvement as a determinant of competitive advantage (Kim & Mauborgne, 2014).

The third objective is to identify reliable and cost-efficient raw material suppliers through direct surveys and evaluation of alternative sourcing channels. Securing high-quality agricultural inputs at stable prices is essential for MSMEs in the food and beverage sector, where cost volatility can significantly impact profit margins and production sustainability (Bocken et al., 2014). The fourth objective is to apply the BMC framework to conduct an integrated evaluation of SemJoy's enterprise structure, including value creation, customer segmentation, revenue streams, cost structure, and key resources. This holistic analysis is particularly relevant for MSMEs seeking to scale operations, improve operational coherence, and strengthen strategic positioning in competitive markets (Osterwalder & Pigneur, 2010; Amit & Zott, 2015).

This study offers three major contributions. First, it provides a comprehensive BMC-based strategic assessment of SemJoy as an emerging beverage MSME, illustrating how innovative product concepts can be systematically integrated into a robust business model. Second, it identifies both internal and external factors that influence SemJoy's competitive potential, including flavor differentiation, supply chain characteristics, operational risks, and market opportunities. These insights contribute to the broader academic discussion on MSME innovation dynamics in developing economies, where enterprises frequently face resource constraints but possess high adaptive capacity (Yunus & Yuliana, 2023). Third, the study proposes practical recommendations for enhancing business sustainability through product innovation, cost



optimization, customer engagement, and strategic partnerships. These recommendations are actionable for similar beverage MSMEs across Indonesia and other emerging markets.

Given the increasing importance of localized beverage innovation, the integration of traditional flavors, and the rise of consumer demand for experiential products, SemJoy represents a relevant case study in the intersection of cultural food innovation and MSME strategic development. By adopting a structured business modeling approach and addressing core challenges related to product consistency, consumer awareness, and supply chain efficiency, SemJoy has the potential to expand its market reach and establish stronger brand recognition. Overall, this study aims to provide theoretical insights and practical guidance for MSME practitioners, policymakers, and researchers seeking to advance innovation-led growth in the Indonesian beverage sector.

METHOD

This study employs a qualitative participatory research design aimed at analyzing and strengthening the business model of SemJoy, a micro, small, and medium enterprise (MSME) beverage brand located in Batam, Indonesia. A qualitative participatory approach is considered appropriate because it enables researchers to engage directly with business owners, observe production processes, and collaboratively identify challenges and improvement strategies. As noted by Creswell and Poth (2018), qualitative inquiry allows an in-depth exploration of lived experiences and contextual factors that shape entrepreneurial decision-making. In addition, the participatory technique enhances the research's validity by involving stakeholders directly in the process of data gathering and interpretation (Stringer, 2014).

Data collection was conducted through a combination of field observation, semi-structured interviews, mentoring sessions, and document analysis. Observations focused on production workflows, raw material management, and marketing practices. Semi-structured interviews were held with the business owner and key partners to capture insights about operational challenges, resource constraints, and strategic priorities. Mentoring was integrated as a participatory component, enabling researchers to guide the refinement of SemJoy's business processes while simultaneously collecting qualitative evidence. This method aligns with the principles of action



research, which emphasize iterative cycles of planning, acting, observing, and reflecting (Kemmis et al., 2014).

The Business Model Canvas (BMC) was adopted as the primary analytical framework to map SemJoy's key business elements, including value propositions, customer segments, channels, revenue streams, key activities, key resources, key partners, cost structure, and customer relationships. The BMC is widely used in MSME research due to its simplicity, analytical clarity, and capacity to capture the strategic logic of small enterprises (Osterwalder & Pigneur, 2010; Joyce & Paquin, 2016). In addition to BMC analysis, a SWOT framework (strengths, weaknesses, opportunities, and threats) was applied to evaluate internal capabilities and external market dynamics. SWOT analysis is useful for MSMEs to understand competitive positioning and potential risks (Gürel & Tat, 2017).

Financial data, including production costs, revenues, profit margins, and break-even calculations, were collected to complement the qualitative findings and assess the enterprise's economic viability. Triangulation was conducted across observation notes, interview transcripts, and financial documents to enhance accuracy and credibility. The integration of participatory methods, BMC-based modeling, and SWOT analysis provides a comprehensive methodological foundation for evaluating SemJoy's sustainability and strategic growth potential.

RESULT AND DISCUSSION

The research results are discussed based on the qualitative participatory approach and financial evaluation conducted on SemJoy, an MSME beverage enterprise in Batam. The analysis focuses on three key components: (1) the Business Model Canvas (BMC) as the primary analytical framework, (2) the SWOT analysis to identify internal and external business factors, and (3) the financial performance assessment to evaluate profitability and operational efficiency. The discussion also interprets how the BMC framework can be utilized as a strategic tool for MSMEs to enhance competitiveness, improve innovation capacity, and support long-term sustainability.

Business Model Canvas Analysis



The Business Model Canvas was used as the primary analytical tool to understand SemJoy's strategic structure and operational components. The analysis identified key elements as summarized below:

a. Key Partners

SemJoy collaborates with several local and regional suppliers, including BPS Mitra Raya, Minimarket Sukses Indah, and Toko Sayur Toss 3000. These partnerships ensure the availability of high-quality raw materials and support the enterprise's small-scale distribution network.

b. Key Activities

Core operational activities include product preparation, packaging, promotion, and sales through digital platforms. The main product variants consist of Blissful Semboi (IDR 7,000), Cheerful Semboi (IDR 8,000), and Joyful Semboi (IDR 8,000). Marketing is conducted primarily through social media particularly Instagram (@sem.joy_) with promotional offers such as "Buy 2 bottles of Cheerful or Joyful Semboi for only IDR 15,000" to enhance sales performance and customer engagement.

c. Value Propositions

SemJoy provides an innovative beverage that combines sour, sweet, and salty flavors, offering a refreshing experience suitable for hot weather. The product's unique and attractive concept appeals to consumers across all age groups and has high potential to become a favorite among Indonesian beverage enthusiasts.

d. Customer Relationships

SemJoy prioritizes friendly and polite customer service, offering free delivery within Batam Center and nearby areas. Feedback collection and customer testimonials are encouraged to ensure continuous product and service improvement. Complaints are addressed with patience and professionalism to build long-term customer loyalty.

e. Customer Segments

SemJoy targets students, university communities, and the general public. Market segmentation is based on demographic factors (age and income levels) and geographic reach, which includes schools, campuses, and public spaces such as city squares in Batam.



f. Channels

The main distribution channels include direct selling, social media marketing, and word-of-mouth promotion. These approaches help maintain a short distribution chain and facilitate close interaction with customers.

g. Key Resources:

Production relies on high-quality raw materials—red kiamboi, calamansi, lychee jelly, sugar, and water. Equipment includes basic kitchen tools such as knives, cutting boards, measuring cups, containers, and 450 ml bottle packaging with branded 3×3 cm logo stickers.

h. Cost Structure:

Operational costs consist of variable costs (red kiamboi, sugar, calamansi, lychee jelly, water, packaging) and fixed costs (styrofoam boxes, gas, jelly molds, measuring tools, and containers). This cost efficiency allows SemJoy to maintain competitive pricing while ensuring product quality.

i. Revenue Streams:

Revenue is primarily generated from direct sales of bottled beverages through physical and online channels. The integration of promotional strategies and digital engagement has contributed significantly to SemJoy's brand recognition and customer base expansion.

The BMC analysis indicates that SemJoy has developed an effective micro-level business model emphasizing low-cost production, flavor innovation, and localized marketing, enabling it to maintain competitiveness within Batam's beverage MSME sector.

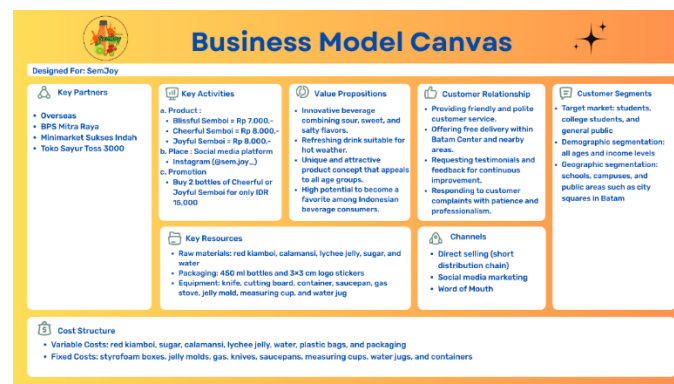


Figure 2. SemJoy's Business Model Canvas



SWOT Analysis

A SWOT analysis was conducted to further evaluate SemJoy's internal strengths and weaknesses, as well as external opportunities and threats.

a. Strengths

- Unique and distinctive flavor profile, rarely found in similar beverage products.
- Simple production process with affordable and easily sourced ingredients.
- Use of high-quality natural materials without artificial additives.

b. Weaknesses:

- Short shelf life (2–3 days under refrigeration) due to the absence of preservatives.
- Dependency on fluctuating prices of raw materials such as sugar and calamansi.
- The simplicity of production increases the risk of imitation products.

c. Opportunities:

- High market demand for refreshing beverages in Batam's tropical climate.
- Compatibility with local Indonesian cuisine, especially spicy and oily dishes.
- Increased digital marketing reach through social media platforms.

d. Threats:

- Potential emergence of competitors offering similar flavor-based beverages.
- Seasonal scarcity and rising costs of calamansi and *kiamboi*.
- Changing consumer preferences that may reduce product demand.

The SWOT analysis confirms that SemJoy possesses a strong product differentiation advantage, but sustainability depends on innovation in packaging, supply chain management, and quality maintenance.

Financial Performance Analysis

SemJoy's total initial investment amounted to IDR 698,000, consisting of fixed costs of IDR 111,900 and variable costs of IDR 586,100. Fixed costs included reusable tools such as styrofoam boxes, jelly molds, measuring cups, and containers. Variable costs comprised consumable ingredients such as red *kiamboi*, sugar, calamansi, lychee jelly, and packaging materials. The enterprise issued six shares, each valued at IDR 116,333, to raise the required business capital. Financial performance was analyzed to evaluate profitability and operational efficiency. Based on



production and sales data from three pre-orders (PO1–PO3), SemJoy achieved total sales revenue of IDR 2,480,500 and incurred total production costs of IDR 1,412,000, resulting in a net profit of IDR 1,068,500.

The Break-Even Point (BEP) was calculated using equation:

$$QBEP = FCP - VC$$

where $FC = 111,900$, $P = 7,500$, and $VC = 3,907$.

The computation yields a break-even quantity of approximately 29 units, indicating that profitability can be achieved rapidly under current pricing and cost conditions.

The Net Profit Margin (NPM) is given by:

$$NPM = \frac{\text{Net Profit}}{\text{Sales}} \times 100\% = \frac{1,068,500}{2,480,500} \times 100\% = 43.08\%$$

This margin demonstrates a high level of financial efficiency for a small-scale enterprise, confirming that SemJoy's business operations are economically viable and sustainable.

Business Sustainability

Business sustainability within Micro, Small, and Medium Enterprises (MSMEs) refers to an enterprise's ability to maintain long-term operational, financial, social, and environmental performance while remaining adaptable to dynamic market conditions. For SemJoy, sustainability is not merely an outcome but an ongoing strategic process achieved through product innovation, efficient resource utilization, and strong community engagement. This approach aligns with contemporary sustainability frameworks, which emphasize the integration of economic viability, environmental responsibility, and social inclusiveness as fundamental pillars of resilient MSME development (Bocken et al., 2014; Rahmawati & Rahayu, 2022).

From an economic standpoint, SemJoy demonstrates solid financial resilience supported by strong profitability indicators. With a net profit margin of 43.08% and a low break-even point of only 29 units, the enterprise exhibits operational efficiency and an ability to scale production sustainably. These financial results reflect effective cost management, competitive pricing, and steady demand for the product. The relatively modest initial capital of IDR 698,000 suggests that SemJoy's business model is not capital-intensive and therefore less vulnerable to financial shocks, a characteristic commonly associated with MSMEs that survive early-stage market pressures



(Morris et al., 2005; Yunus & Yuliana, 2023). Furthermore, consistent sales growth reinforces the enterprise's capacity to reinvest profits into innovation initiatives, marketing, and product refinement—factors essential for long-term competitiveness.

From an environmental perspective, SemJoy integrates sustainable practices by relying on locally sourced raw materials such as kiamboi, calamansi, and lychee jelly. The decision to use natural ingredients supports environmentally conscious production while reducing reliance on industrial additives and preservatives. This practice not only resonates with increasing consumer demand for natural products but also helps minimize the company's ecological footprint (Bocken et al., 2014). SemJoy's small-scale production process additionally limits waste generation and energy consumption, which are critical considerations for MSMEs attempting to align with global sustainability goals. Future efforts to improve packaging materials—particularly by exploring biodegradable or recyclable alternatives—offer opportunities to enhance environmental sustainability and strengthen the brand's eco-friendly identity (Abdulloh et al., 2024).

From a social standpoint, SemJoy contributes significantly to the local economy by collaborating with small suppliers, engaging students in promotional activities, and involving micro-retailers within Batam. This community-oriented approach enhances social cohesion while reinforcing the enterprise's local market presence. Social sustainability is further supported by SemJoy's active customer engagement through digital platforms, where feedback mechanisms and continuous interaction help improve product quality and customer satisfaction. Such participatory business practices have been shown to foster long-term loyalty and trust, particularly in MSMEs that depend heavily on community networks and word-of-mouth marketing (Lemke & Petersen, 2019; Ghazali & Yusuf, 2022).

Strategically, SemJoy employs structured analytical tools such as the Business Model Canvas (BMC) and SWOT analysis to guide sustainable decision-making. The BMC enables the enterprise to organize operational components—including key activities, partner networks, value propositions, and revenue streams—into a coherent system that supports long-term growth (Osterwalder & Pigneur, 2010). Meanwhile, the SWOT framework offers insights into internal strengths and weaknesses while identifying external opportunities and threats, thereby facilitating adaptive strategies and resilience planning (Teece, 2010; Amit & Zott, 2015). The integration of



these strategic tools allows SemJoy to maintain alignment between resources, market demand, and competitive positioning in a rapidly evolving beverage industry.

In summary, SemJoy's sustainability is grounded in a balanced approach that combines economic efficiency, environmental responsibility, and social engagement. Supported by structured strategic frameworks, the enterprise demonstrates readiness to adapt, innovate, and remain resilient amid market uncertainties. These sustainability practices position SemJoy not only as a competitive MSME but also as a model for community-driven, environmentally conscious business development in Indonesia.

CONCLUSION

This study provides a comprehensive analysis of SemJoy, an emerging micro, small, and medium enterprise (MSME) in Batam's beverage sector, by integrating the Business Model Canvas (BMC), SWOT analysis, and financial performance assessment. The findings collectively demonstrate that SemJoy possesses substantial potential for long-term growth, driven by strong product differentiation, cost efficiency, and customer-centered operational strategies. SemJoy's unique value proposition—offering a refreshing beverage made from kiamboi, calamansi, and lychee jelly—creates a competitive positioning within Batam's dynamic beverage market. The BMC analysis revealed that SemJoy has established clear operational strengths through its key partnerships with reliable suppliers, streamlined production activities, utilization of high-quality natural ingredients, and a marketing approach that optimizes social media engagement. These components work synergistically to enhance market visibility and strengthen customer relationships, contributing to steady revenue growth.

The SWOT analysis highlighted several internal strengths, including simplicity in production, low operating costs, high product appeal, and adaptability to local culinary preferences. However, the analysis also underscored vulnerabilities such as limited product shelf life, fluctuating raw material prices, and risks of imitation by competitors. Externally, opportunities arise from increasing consumer demand for innovative beverages and expanding access to digital marketing platforms. Nevertheless, threats remain in the form of market competition, price volatility, and changes in consumer behavior. These findings indicate that SemJoy's sustainability



depends on continuous innovation, improved supply chain stability, and enhanced quality control mechanisms.

Financial analysis further confirmed the viability of SemJoy's business model. With an initial capital of IDR 698,000, the enterprise achieved total revenue of IDR 2,480,500 and a net profit of IDR 1,068,500, resulting in a strong Net Profit Margin (NPM) of 43.08%. The low Break-Even Point (29 units) demonstrates operational efficiency and suggests that SemJoy can maintain profitability even at small production scales. These financial indicators validate SemJoy's capacity to sustain operations, reinvest in product development, and scale gradually without external funding pressures. This research concludes that SemJoy's strategic positioning is strengthened by its innovative product design, efficient resource utilization, and integration of customer feedback mechanisms. The application of the BMC and SWOT frameworks provides a robust foundation for strategic decision-making, enabling SemJoy to adapt to market dynamics and pursue sustainable growth. Future efforts should focus on extending product shelf life, diversifying supply sources, and enhancing branding strategies to further expand market reach and ensure long-term competitiveness in the MSME beverage industry.

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