

The Sustainable Business Model Development For SMEs In Palm Post-Harvest Equipment

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Abstract– Small and medium industries that produce post-harvest tools for oil palm are growing quite rapidly in Riau Province. The business activities carried out by MSMEs need to be continuously developed especially business model. This study uses SWOT analysis to determine business model development strategy. The strategy obtained from the SWOT analysis is then used to develop BMC 2.0 with activities that must be maintained, developed, and created. BMC 1.0 resulted from observations and interviews with business actors. The results of this study are the formulation of BMC 2.0 by applying each strategy resulting from the SWOT analysis which is carried out including creating products that are more diverse and in accordance with SNI standards, actively participating in activities or programs from the Regional Government, producing tools according to requests from consumers, and starting to adopt a recording system digital finance. The results of BMC 2.0 can be used as a reference for MSMEs in developing their business units, namely by implementing a market penetration strategy to obtain broader market or consumer segmentation.

Keyword- BMC; Post Harvest Tools; Small Medium Enterprise; SWOT Analysis

I. INTRODUCTION

Micro, Small and Medium Enterprises (MSMEs) are a business sector that has a large role, percentage and contribution to the economy in Indonesia. MSMEs are a business group that has been proven to be resilient to various economic shocks like when the Covid-19 pandemic in 2019. Based on BPS data from 2019-2024 (Figure 1) shows fluctuations in the number of micro and small industries in Indonesia.

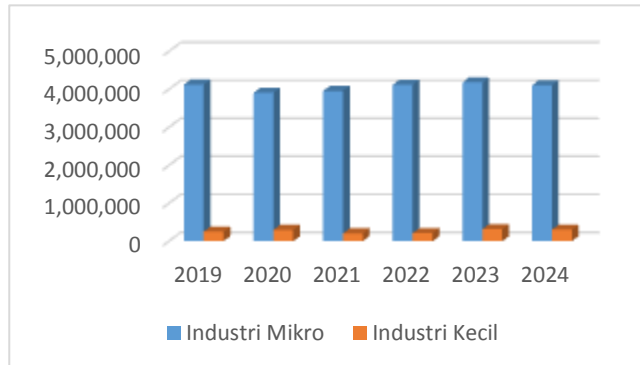


Figure 1. MSME's in Indonesia (2019-2024)

Source: Data processed from BPS

The LPM warta journal reveals that there are at least 37 thousand MSMEs that have experienced a decline in performance due to Covid-19 with the resulting impact being a decrease in sales (56%), funding (22%), distribution of goods (15%), and access to raw materials (4 %) [1].

MSMEs in Indonesia on average still have weaknesses in terms of a lack of capital to develop a

business both in terms of quantity and sources, limited managerial capabilities and operational skills, and limited marketing [2]. Marketing is still one of the obstacles that quite a lot is faced by MSME actors. Various types of SMEs or UKM have grown and developed in Indonesia with various types of business sectors from food & beverage products, services, to equipment. When viewed in terms of business scale, MSMEs have a business scale and business targets that are still below those of large companies. However, the two business scales have more advantages than large business scales. These advantages include the ability to adopt and implement new technology and innovation in business.

Indonesia is one of the Asian countries that produces the largest palm oil. Based on [3], Riau Province capable of producing 8.96 million tonnes of CPO from 2.86 million hectares or 19.55 percent of the total area of oil palm plantations in Indonesia. Therefore, many MSMEs produce post-harvest tools for oil palm in Riau Province. Post-harvest equipment that is mostly produced is egrek, deres knives, axes, knives, machetes, crowbars, tares forks, dodos, axes, and others.

The area of oil palm which has the potential to continue to grow will be one of the triggering factors for the development of IKM post-harvest equipment for oil palm. As one of the efforts to develop a business, it is have to a business development strategy including developing a business model using the



Business Model Canvas (BMC) as a tool. The development of a business model needs to be carried out thoroughly to then be used as a guideline for business development. Business development can be carried out by strengthening competitiveness by increasing product quality and not only fulfilling it in terms of quantity [4]. Various business scales, both small, medium and large scale industries have interests and goals to make the industry the best in their field and in demand by consumers [5].

This study aims to develop a business model for the MSMEs in Indonesia on average still have we business unit for post-harvest palm oil equipment in Kampar Regency using BMC. BMC was chosen as a tool for compiling business model development because it is able to describe in full a simple business component with 3 (three) main components from creating products (create), delivering products to consumers (deliver), and capturing results from delivering value/products to consumers (capture). The final results of this research are supposed to assist to business units in developing their business models, as well as provide an overview of input to stakeholders in efforts to build IKM/business units engaged in producing post-harvest palm oil products.

II. LITERATURE REVIEW

2.1 Small Medium Enterprises (SMEs)

MSMEs in Indonesia have a significant role in supporting the national economy and opening up employment opportunities in various sectors. BPS data for 2024 states that the number of micro businesses in Indonesia is 4,107,397 units and small businesses is 306,406 units [6]. This shows the importance of maintaining the sustainability of each type of MSME, including MSMEs that provide various types of palm oil harvesting equipment. The sustainability of MSME businesses is influenced by their ability to respond to developments in online marketing systems [7]. The performance of MSMEs in the context of customer relationship management has the opportunity for success according to the resources they have/ Resourced Based-View (RBV) [8].

2.2 Business Development

The development of business models is currently developing into Sustainable Business Model Innovation (SBMI) where product development does not only look at economic aspects, but also environmental and social aspects [9]. Business development is not limited to internal business units but can also involve external parties. For example,

MDC Coffee House's business development commitment involves farmers, buyers, and other coffee industry players through education on coffee quality [10].

2.3 SWOT Analysis

Identifying strengths, weaknesses, opportunities and threats is very popular in business development efforts. The management team will identify internal and external factors that influence the organization's performance. SWOT analysis is often used by organizations because it provides benefits in analyzing business conditions and supports strategic decision-making in business development. Strength is a positive internal factor that a company has to achieve its goals and be able to serve consumers. Meanwhile, weaknesses are internal factors that can hinder the company's performance. Opportunities are external factors that companies can utilize to create relationships with external parties. Threats are factors that originate from outside the company and usually have the potential to hinder the company's performance in a positive direction [11].

2.4 Business Model Canvas (BMC)

BMC is a simple analysis tool that is often used to identify business development. BMC consists of 9 main components, namely value proposition, customer segment, customer relationship, channels, key resources, key partnership, key activities, cost structure, and revenue stream [12] [13]. Developing a business model without involving consumers will not provide optimal results [14].

III. RESEARCH METHODS

This research is a qualitative descriptive study by conducting direct observations and interviews with several MSMEs business actors for post-harvesting oil palm equipment in Kampar Regency, Riau Province. Data collection was carried out by means of literature study, field observations, filling out questionnaires, interviews, and in-depth interviews. Qualitative research is often used to analyze consumer responses to products and marketing systems, so that we can find out more deeply through in-depth interviews with consumers [15]. The results of the observations will be put into BMC 1.0, then followed by determining the components that are the strengths, weaknesses, opportunities and threats (SWOT) of the business unit. The strategy resulting from the SWOT analysis is then used to develop BMC 2.0. The research framework used can be seen in table 1 below.



Table 1. Research framework

Steps	Activities
Literature review	Secondary data collection related to business development strategy
Field observations, interviews and in-depth interviews	The results of field observations and in-depth interviews were used as material for developing BMC 1.0
Determination of internal factors (Strength, Weakness) and external factors (Opportunity, Threats)	Preparation of SWOT components and SWOT strategies that can be applied to business unit development for further strategic assessment
SWOT strategy assessment	The SWOT strategy assessment is carried out by respondents who understand management and business
Preparation of BMC 2.0	The results of the SWOT assessment are used to develop BMC 2.0 which contains the latest strategies that can be used for business business model development

IV. RESULT AND DISCUSSION

Results

4.1 Initial Indentify Business Model Canvas (BMC 1.0)

Riau Province is one of the provinces with a fairly high level of palm oil production in Indonesia. This is one of the supporting factors for the development of MSMEs in the field of providing post-harvest equipment for palm oil. The high demand does not only come from local farmers, but also from large companies. The business model of the business actors currently running is not only selling directly to consumers but also through cooperatives. Figure 2 presents the MSME business model that currently exists.

KEY PARTNERS • Iron supplier • Reseller • Cooperative blacksmith centers • PTPN V	KEY ACTIVITIES • Production • Marketing • Quality control	VALUE PROPOSITION • Affordable product prices • The quality of post-harvest tools is good	CUSTOMER RELATIONSHIP • By phone and social media • Product damage warranty during distribution	CUSTOMER SEGMENTS • Palm companies • Palm farmers • Farm shop / distributor
	KEY RESOURCES • Iron raw materials • Reliable blacksmith		CHANNELS • Social media promotion • Send sample products to companies • Sales through the central co-op of blacksmiths	
COST STRUCTURE • Purchase of raw materials • Production of post-harvest tools		REVENUE STREAMS • Selling products offline • Online product sales		

Figure 2. BMC 1.0 MSMEs post harvest equipment industry

Value propositions: The value proposition offered is affordable post-harvest equipment prices and equipment quality. This is because it correlates with the market segment targeted by the company, namely the farmer class to the company. For small farmers, price is a very important thing to consider. In addition, MSMEs also has business value in the form of good quality palm harvesting equipment. The low selling price or affordable price does not mean that the quality of the equipments is very bad. This is the company's concern coupled with a good quality control process.

Customer segments: The customer segments targeted by this industry (MSMEs) are oil palm smallholders, both in the form of farmer groups and individuals, companies engaged in oil palm plantations, and agricultural shops/distributors.

Customer relationships: The relationship built with customers today is still simple through telephone and social media. Strengthening customer relationships is done by providing assurance of product warranty until it reaches the consumer's hands. If there is a product defect during the product delivery process, consumers can apply for an exchange or return of the product.

Channels: Distribution of products until purchased by consumers begins with promotion through social media such as WhatsApp, sending samples of post-harvest tool products to related companies, and through the blacksmith cooperative center. Meanwhile, shipping activities will be adjusted to the quantity of orders or purchases and agreements that have been made with the buyer. Of all these channels, the channel through the sale of cooperative blacksmith centers is the most successful.

Revenue streams: The income of MSMEs comes from online and offline product sales. Various products in the form of post-harvest tools for oil palm



such as egrek, dodos, etc. are sold at a price range starting from IDR 75,000 - IDR 120,000.

Key activities: The main activities carried out by MSMEs of oil palm post-harvest equipment are post-harvest equipment production activities, sales, and equipment quality control to comply with standards. Post-harvest equipment quality control is a major concern for MSMEs. Product quality control starts from the selection of raw materials such as iron ore, processing activities, until the goods are ready to be sent to consumers.

Key resources: The main resources in the post-harvest tool industry are quality iron raw materials and a competent blacksmith workforce. Limited resources are one of the keys to supporting the sustainability of business in this field. The average skilled and competent blacksmith owned by the palm oil post-harvest tool industry is only around 3-4 people. Skilled and reliable human resources are an important asset that must be maintained.

Key partners: The key partners for the post-harvest tool industry are iron suppliers, finished product resellers, blacksmith cooperative centers, and PTPN V. Iron suppliers are important because they are the key to the sustainability of raw materials. Resellers, blacksmith cooperative centers, and PTPN V are the main and regular buyers of the products they produce.

Cost structure: The costs be taken out to run this business include the costs for purchasing raw materials, especially iron, and production costs include labor wages and production equipment (machines).

4.2 SWOT Analysis

SWOT analysis is an analytical method for developing a business strategy consisting of internal Strength and Weakness factors, as well as external Opportunity and Threats factors [16]. The results of the SWOT analysis are then used to develop four main strategies, namely the S-O strategy, W-O strategy, S-T strategy, and W-T strategy. Table 2 presents the results of the SWOT analysis.

Table 2 SWOT Analysis

IFE/ EFE	Strength (S)	Weakness (W)
<p>Opportunity (O)</p> <ol style="list-style-type: none"> 1. There is an opportunity to make quality products according to SNI standards, for example the Dodos tool 2. The establishment of cooperation with PTPN V is one of the attractions for expanding other market segments 3. Good relationships with customers can be improved 	<p>S-O</p> <ol style="list-style-type: none"> 1. MSMEs are starting to develop strategies to expand their potential and market reach by offering quality products that meet SNI standards, more modern tools, and affordable prices (SO1) 2. Optimizing product marketing channels through digital marketing, collaboration with companies (PTPN) and strengthening relations with cooperatives (SO2) 	<p>W-O</p> <ol style="list-style-type: none"> 1. Continuously improve product quality and comply with SNI standards (WO1) 2. Continuously increase sources of raw material suppliers to minimize dependence on one supplier while striving to expand cooperation networks (WO2) 3. Start leveraging technology to expand marketing and business financial records (WO3)



<p>through a personal approach and increasing customer trust</p> <ol style="list-style-type: none"> 4. Opportunities for the development of social media, online marketing and expo activities for marketing 5. Palm oil production and productivity are increasing 6. Research and development activities for processed palm oil products are increasing 7. Expansion of cooperation with iron suppliers 	<ol style="list-style-type: none"> 3. Develop a business financial accounting system (SO3) 4. Employee training to improve skills in producing quality products, as well as implementing research and development activities for more modern post-harvest tools according to consumer needs (SO4) 	
<p>Threats (T)</p> <ol style="list-style-type: none"> 1. Replaced by engined products 2. The sufficiency of iron ore raw materials is increasingly limited as the industry using similar raw materials increases 3. Existence and better service than competitors 4. The marketing channels used by competitors are more diverse and superior 5. Palm oil farmers and companies are starting to switch using modern equipment 6. Production halted because sales declined 7. HR moves or quits 8. Financial burden experienced by MSMEs due to rising raw material prices 	<p>S-T</p> <ol style="list-style-type: none"> 1. Maximizing skilled labor to produce standardized quality products (ST1) 2. Optimizing and intensifying product marketing through various social media (ST2) 3. Improving service to consumers (fulfilling consumer requests) (ST3) 4. Follow the orderly rules as long as a member of the cooperative (ST4) 	<p>W-T</p> <ol style="list-style-type: none"> 1. Maintain product quality to retain existing customers (WT1) 2. Focus on activities to maintain consumer loyalty (WT2) 3. Expand marketing channels to the maximum to increase consumer reach (WT3)

4.3 Proposed Improvements to the New Business Model Canvas (BMC 2.0)

After creating the SWOT matrix and developing a strategy that can be used for business unit development, the latest BMC improvement

(BMC 2.0) can be developed by implementing the business development strategies described in table 1. BMC 2.0 description of the IKM business unit development strategy tools after the harvest of oil palm in Kampar Regency, Riau Province can be seen in figure 3.



KEY PARTNERS	KEY ACTIVITIES	VALUE PROPOSITION	CUSTOMER RELATIONSHIP	CUSTOMER SEGMENTS
<ul style="list-style-type: none"> • Iron supplier • Reseller • Cooperative blacksmith centers • PTPN V • Local government (Department of Agriculture, Office of Cooperatives and SMEs) • Developer of digital financial bookkeeping systems 	<ul style="list-style-type: none"> • Production • Marketing • Quality control • Using a financial recording system • Product marketing activities through expos and bazaars • R&D development of new tools or product quality improvement 	<ul style="list-style-type: none"> • Affordable product prices • The quality of post-harvest tools is good • Various products • Products that meet SNI quality standards 	<ul style="list-style-type: none"> • By phone and social media • Product damage warranty during distribution • Fulfill consumer requests for product specifications 	<ul style="list-style-type: none"> • Palm companies • Palm farmers • Farm shop / distributor • Department of Agriculture
	KEY RESOURCES <ul style="list-style-type: none"> • Iron raw materials • Reliable blacksmith • Smartphones and computers • Skilled human resources in the field of financial records 		CHANNELS <ul style="list-style-type: none"> • Social media promotion • Send sample products to companies • Sales through the central co-op of blacksmiths • Utilizing government programs for product promotion & marketing (such as expos and bazaars) 	
COST STRUCTURE <ul style="list-style-type: none"> • Purchase of raw materials • Production of post-harvest tools • Employee salary • Business location tax • Procurement of smartphones/computers 		REVENUE STREAMS <ul style="list-style-type: none"> • Selling products offline • Online product sales • Consulting services and service tools 		

Figure 3 Proposed improvements to the Business Model Canvas (BMC 2.0)
Information: maintained, improved, created

Discussion

Value propositions: the results of an analysis of increasing product value that can be carried out by business units is to create products that are more diverse and varied. Tools derived from iron ore can be created according to customer requests with certain specs and meet established quality standards. Diverse products are strongly supported by the creativity of

entrepreneurs in developing their products [17]. Diverse products will also provide opportunities for business units to increase sources of revenue streams and expand the customer segment of their products. However, consumers' purchasing intentions are also more influenced by the level of consumer trust in the seller/supplier [18].



Customer segments: efforts to expand customer segments can be done one way with a market penetration strategy. Market penetration strategy is a strategy that is often used by companies to maintain customer loyalty by trying to match or exceed the competitive advantage of competitors. Apart from that, there is also an assumption that there is unfulfilled consumer demand, so business units have the opportunity to fill it [19]. The results of the analysis show that business units can create new customer segments from government agencies such as the Department of Agriculture. The assumptions given could be in the form of work programs related to oil palm harvesting tools/technology, so that the agency needs to supply harvesting tools for the program.

Customer relationships: the results of the SWOT analysis show that business units can implement new efforts to establish relationships with consumers, namely fulfilling products specifically requested by consumers (business units are able to provide products with certain specifications desired by consumers). This strategy is expected to be able to foster consumer confidence so that consumers also become loyal. Activities to maintain relationships with customers that are being carried out at this time are providing damage guarantees during the product delivery process. The existence of product guarantees can also be used to maintain consumer loyalty.

Channels: one of the new strategies that can be adopted by the oil palm post-harvest equipment business unit is promotion through activities held by the government such as expos or bazaars. Promotion has a role to introduce products to consumers, and promotional media that match the product will provide consumer satisfaction. Consumer satisfaction will create consumer loyalty [20].

Revenue streams: sources of income for business units in general are dominated by product sales. Product sales are often done offline. Current technological developments require all business actors to adapt to technological developments, one of which is by selling products online. In addition, efforts to maintain business operating units from the results of the analysis are to increase sources of business income through online sales and open services for tool/machine service as well as consulting services related to post-harvest palm oil equipment. The efforts to increase revenue through product sales can be made by improving product quality according to consumer expectations [21].

Key activities: the results of the component analysis of key activities show that business units can carry out several other activities, namely starting to use a more modern recording system to facilitate business financial management. In addition, business units can also form a team that is responsible for conducting research and creating innovative new tools. One indicator of the success of a business can be seen from the development of product innovation. Development innovation does not only come from business units, but can also come from fulfilling consumer needs/demands [22].

Key resources: there are two main resources that must be fulfilled or added by business units based on the results of the SWOT analysis as outlined in BMC 2.0. These two resources are smartphones and computers to fulfill the technology needed in developing a digital financial recording system. In addition, human resources are skilled and understand related to financial reporting.

Key partners: from the results of the analysis, new key partners that can be created for business development include local governments and developers/developers of digital financial management systems. The government is a potential partner because there are work programs that usually support the development of SMEs in their working area [23]. In addition, the government is also facilitating several programs and funding that will play a role in developing business units.

Cost structure: there are several additional activities/that support the realization of alternative business development strategy recommendations from each BMC component, the next step is to determine the composition of the increased costs [24]. The cost component that increases is employee salaries, the addition of human resources with certain qualifications will add to the list of costs for employee salaries. Another additional cost is the cost of procuring a digital bookkeeping system and the necessary hardware.

V. CONCLUSION AND SUGGESTION

Small and medium industries that produce post-harvest tools for oil palm in Riau Province have a good opportunity to continue to develop. One of the things that supports the development of this field of business is the higher and increasing area of oil palm plantations, especially in Riau Province. One of the business development strategies can be carried out by developing a business unit Business Model Canvas (BMC), where BMC is one of the simple tools that



can be used. From the results of the SWOT strategy formulation analysis, it shows that there are three main categories of business development that can be carried out, namely maintaining, increasing, and creating.

The strategy for the value proposition component is to create products that are more diverse and in accordance with SNI standards. The new customer segment that needs to be targeted is the Department of Agriculture, where through the Department of Agriculture it is hoped that it will provide a new source of income through the many programs that have been developed. In addition to guaranteeing product damage during delivery, MSMEs can also provide tool manufacturing services according to requests or special requests from consumers as an effort to maintain good relations with consumers.

The development of distribution channels (channels) is carried out, among other things, by utilizing activities from related agencies or institutions as promotion channels to sales, including through expos. The new partners that IKM needs to work with for post-harvest palm oil equipment are local governments and developers of electronic bookkeeping systems. The new activities that must be carried out are actively participating in promotions and bazaars, carrying out R & D activities and quality control of equipment produced, and starting to adopt a digital bookkeeping system.

In addition, it is also necessary to have new equipment that supports digital bookkeeping systems such as smartphones and computers, as well as human resources who understand the components of the system. Meanwhile, to support the increase in business unit income, IKM can open tool service services and design consultations for post-harvest oil palm tools. The development of the IKM business model can be carried out by carrying out several new activities from each BMC component.

VI. REFERENCE

- [1] H. Rahman, *Pengaruh Omnichannel Service Quality dan Customer Relationship Management Terhadap Customer Engagement*. Bandung: Universitas Pendidikan Indonesia, 2022.
- [2] M. R. Rahman, M. R. Oktavianto, and Paulinus, *Perkembangan Umkm (Usaha Mikro Kecil Dan Menengah) Di Indonesia*. 2021.
- [3] BPS-Badan Pusat Statistik, "Statistik Kelapa Sawit Indonesia 2021," Jakarta, 2021.
- [4] S. Rambe, S. Raharja, and F. Udin, "Strategi Pengembangan Agrowisata Berbasis Agroindustri Kopi Di Provinsi Bengkulu," *Agrointek J. Teknol. Ind. Pertan.*, vol. 15, no. 3, pp. 976–984, 2021, doi: 10.21107/agrointek.v15i3.9307.
- [5] O. Qistiya, D. Turgarini, and A. Sudono, "Strategi Pengembangan Bisnis Dalam Upaya Meingkatkan Penjualan Di Café District 29," *J. Manaj. Resort dan Leis.*, vol. 14, no. 1, pp. 55–62, 2017.
- [6] BPS, "Jumlah Perusahaan Industri Skala Mikro dan Kecil Menurut Provinsi, 2024." 2024.
- [7] A. Fidela, A. Pratama, and T. Nursyamsiah, "Pengembangan Usaha Mikro Kecil dan Menengah (UMKM) dengan Program Pemasaran Desa Jambu Raya di Desa Jambu, Kabupaten Sumedang," *J. Pus. Inov. Masy.*, vol. 2, no. 3, pp. 493–498, 2020.
- [8] F. Mohammed, R. B. Ahmad, S. B. Hassan, Y. Fazea, and A. I. Alzahrani, "An empirical evidence on the impact of social customer relationship management on the small and medium enterprises performance," *Int. J. Inf. Manag. Data Insights*, vol. 4, no. 2, 2024, doi: 10.1016/j.jjime.2024.100248.
- [9] M. Coffay and N. Bocken, "Sustainable by Design: An Organizational Design Tool for Sustainable Business Model Innovation," *J. Clean. Prod.*, vol. 427, 2023, doi: 10.1016/j.jclepro.2023.139294.
- [10] V. A. Pane, T. Sirait, and J. Ramauli, "Business Development Strategy Design Using Triple Layered Business Model Canvas (Descriptive Study on Mdc Coffee House)," *Int. J. Soc. Serv. Res.*, vol. 4, no. 7, pp. 1–17, 2024, doi: 10.46799/ijssr.v4i7.868.
- [11] C. Namugenyi, S. L. Nimmagadda, and T. Reiners, "Design of a SWOT analysis model and its evaluation in diverse digital business ecosystem contexts," *Procedia Comput. Sci.*, vol. 159, pp. 1145–1154, 2019, doi: 10.1016/j.procs.2019.09.283.
- [12] D. J. Teece, "Business Models and Dynamic Capabilities," *Long Range Plann.*, vol. 51, pp. 40–49, 2018.
- [13] D. J. Teece, "Explicating Dynamic Capabilities: The Nature and Microfoundations of (Sustainable) Enterprise Performance," *Strateg. Manag. J.*, vol. 28, no. February 2004, pp. 1319–1350, 2007, doi: 10.1002/smj.



- [14] M. Brunner and J. Wolfartsberger, "Virtual reality enriched business model canvas building blocks for enhancing customer retention," *Procedia Manuf.*, vol. 42, no. 2019, pp. 154–157, 2020, doi: 10.1016/j.promfg.2020.02.062.
- [15] S. Vinerean, A. Opreana, and M. Țichindelean, "Analyzing Consumer Engagement Programs from the Perspective of a Qualitative Research of Marketing Executives," *Procedia Econ. Financ.*, vol. 16, no. May, pp. 621–630, 2014, doi: 10.1016/s2212-5671(14)00849-1.
- [16] H. B. Pratini and I. Setiawan, "Perencanaan Model Bisnis Untuk Merdeka Ritel Dengan Pendekatan Business Model Canvas," *J. Sist. Inf. dan Telemat.*, vol. 13, no. 2, pp. 163–171, 2022.
- [17] H. A. Sangadah, M. Machfud, and E. Anggraeni, "Business Model Development of a Fresh Milk Agro-Industry in Rural Areas," *J. Manaj. dan Agribisnis*, vol. 18, no. 2, pp. 131–143, 2021, doi: 10.17358/jma.18.2.131.
- [18] T. N. Ma'rifat and A. Rahmawan, "The Impact of Consumers Perceived Product Quality on Intention to Buy Smoked Seafood Through E-commerce," *Agroindustrial Technol. J.*, vol. 7, no. 3, pp. 1–8, 2023.
- [19] C. Harini and Y. Yulianeu, "Strategi penetrasi pasar UMKM Kota Semarang menghadapi era pasar global MEA," *J. Ekon. dan Bisnis*, vol. 21, no. 2, pp. 361–381, 2018, doi: 10.24914/jeb.v21i2.1967.
- [20] A. Widodo and Murwatiningsih, "The Influence of Promotion and Trust on Customer Loyalty through Customer Satisfaction," *Manag. Anal. J.*, vol. 1, no. 2, pp. 120–128, 2019.
- [21] R. Hariri, "Analysis of Comparative Advantages and Export Potential of Indonesian Green Tea in the International Market," *Agroindustrial Technol. J.*, vol. 9, no. 2, pp. 58–68, 2025.
- [22] H. A. Sangadah, Machfud, and E. Anggraeni, *Pengembangan Model Bisnis Agroindustri Susu Segar di Pedesaan*. Bogor: IPB University, 2021.
- [23] N. Alam, H. Ashfia, S. Salma, and S. Nugraha, "The Influence of Product Innovation and Organizational Innovation On Culinary Business Performance Of Small And Medium Enterprises," vol. 5, no. 4, pp. 275–283, 2023.
- [24] A. Dahlena, G. Abdul, F. Maulani, N. A. Hamdani, and A. Solihat, "The Influence of Creative Economy-Based Entrepreneurial Cognitive on Entrepreneurial Success," vol. 7, no. 4, pp. 249–258, 2025.

