# DEVELOPMENT OF A VILLAGE-BASED ORGANIC VEGETABLE BUSINESS MODEL USING THE BUSINESS MODEL CANVAS FOR SUSTAINABILITY (BMCS)

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#### **Article history:**

Received 5 November 2024

Revised 10 February 2025

Accepted 12 March 2025

Available online 31 May 2025

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#### **Abstract**

**Background:** Business model changes have far-reaching implications for overall company performance, including social and environmental aspects. Business Model Canvas (BMC) is often used as a framework for designing business models. However, the concept of sustainability involving social and environmental aspects is often not fully integrated into using BMC. In other words, BMC tends to focus more on economic aspects alone. Urban studies have dominated research on business and entrepreneurship. Studies on rural entrepreneurship, especially in developing countries, are still minimal, with 78% (10 documents) of journal article publications in 2021 dominated by social sciences (26%), business, management, accounting (19%), and agriculture and biology (7%). In addition, there is a research gap in economics, especially regarding the role of women in organic farming, although women are more often involved in organic farming than men.

**Purpose:** This research uses the Business Model Canvas for Sustainability (BMCS) to develop a business model centered on village-based sustainability issues, specifically focusing on the Mekar Sari Women Farmers Group (WFG) in Bogor, Indonesia.

**Design/methodology/approach:** The research was conducted in Neglasari Village, Bogor District, West Java, Indonesia. The research was conducted for 3 months for one case study from July to September 2024. The sampling technique used was purposive sampling with a descriptive-qualitative approach. The research used primary and secondary data from literature studies, field observations, and interviews with 20 respondents selected based on the criteria set. It was then analyzed with the business unit's BMCS framework, the results of which were used to identify the 10 main elements of BMCS.

**Finding/Result:** The results showed that the Mekar Sari Women Farmers Group business had implemented most of the BMCS components. Elements identified include vision and mission, value propositions, customer segments, competitors, stakeholders, revenue model, key resources, key activities, key partnerships, and cost structures.

**Conclusions:** Based on the identification of the business model currently implemented by WFG Mekar Sari, it shows that WFG has constraints on market competition, customer segments, and key partnerships that affect the revenue model of Mekar Sari's WFG organic vegetable business. To improve business performance, WFG Mekar Sari needs to adopt a sustainable business strategy for its future business development.

**Originality/value (State of the art):** This study contributes to developing sustainable business models by addressing the gap in integrating sustainability into the BMC framework, especially in village-based businesses. This study shows that BMCS is one of the tools that can be considered for designing more sustainable businesses.

**Keywords:** BMCS, business model, organic vegetables, sustainability, women farmer group (WFG)

#### How to Cite:

Pranatasari N. A., Hardjomidjojo H., & Machfud. (2025). Development of A Village-Based Organic Vegetable Business Model Using The Business Model Canvas For Sustainability (BMCS). Indonesian Journal of Business and Entrepreneurship (IJBE), 11(2), 319. https://doi.org/10.17358/ijbe.11.2.319

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### INTRODUCTION

A business model serves as a conceptual framework that describes the logic behind a business, including how it creates value for customers, the company, and other stakeholders. The concept of sustainable business, known as Business Model Canvas for Sustainability (BMCS), was proposed by Tiemann and Fichter in 2016. This business model innovation concept integrates the three pillars of the sustainability perspective (social, environmental, and economic) into a single canvas that is increasingly popular and has become a significant focus of academic studies. Geissdoerfer et al. (2018), who proposed a definition of sustainable business models from various literature reviews, concluded that value capture refers to transforming a portion of the value created for stakeholders into economic value that the company can utilize. This framework supports the development of sustainable business models, focusing on creating shared value for the company, society, and the environment while reducing the negative impacts of business (Bocken et al. 2016).

New technologies and innovations have triggered significant transformations in various business fields. The importance of integrating new technologies into business operations has prompted businesses to reevaluate their strategies, including their implications for environmental, social, and economic sustainability (Ford and Despeisse, 2016). Business model changes have far-reaching implications for overall company performance, including social and environmental aspects. According to Bocken et al. (2019), research explicitly supporting the development of sustainable business models still needs to be completed. One of the most frequently used tools in designing business models is the Business Model Canvas (BMC), introduced by Osterwalder and Euchner in 2010. The Business Model Canvas is a popular tool for designing business models, but it does not emphasize sustainability, primarily social and environmental aspects. While it effectively analyzes economic aspects (cost structure and revenue streams), it needs to integrate social and environmental aspects that are increasingly important in today's business world. In other words, BMC tends to focus more on economic aspects alone. According to Cardeal et al. (2020), until now, there has been a lack of a standardized approach to integrating environmental and social dimensions comprehensively into the Business Model Canvas (BMC) framework; the application of BMC in the context of sustainability (BMCS) is an innovation that offers a new perspective in analyzing and designing sustainable business models.

In 2016, Tiemann and Fichter introduced a new business model concept with a sustainability perspective known as the Business Model Canvas for Sustainability (BMCS). The development of this business model canvas lies in the addition of elements related to sustainability, such as ecological and social costs and revenues, as well as consideration of vision, mission, competitors, and stakeholders, and combining customer segments, channels, and customer relationships into a single element, namely "customer." Several researchers have proposed modifications to the Business Model Canvas (BMC) regarding the business model canvas concept. Osterwalder and Euchner (2019) again suggested the addition of ecological and social cost and revenue elements. Upward and Jones (2016) enriched the BMC concept with four stakeholder perspectives: product, process, and measurement, as well as new elements such as biophysical stocks. Then Joyce and Paquin (2016) proposed a three-layer business model canvas that separates the economic, environmental, and social dimensions while maintaining the internal coherence of the business model. These efforts show a consensus that the BMC needs to be developed to accommodate the complexity of sustainability issues in today's business world.

Over the past few years, studies on business or entrepreneurship have focused more on urban areas, with in-depth analysis of business creation processes, business models, and value (Pato and Teixeira, 2016). However, studies on rural entrepreneurship, especially in developing countries, are still minimal. Data from 2021 shows that 78% (10 documents) of publications are journal articles, dominated by the fields of social science (26%), business, management, accounting (19%), and agriculture and biology (7%) (Tabares et al. 2022). Rural entrepreneurship has excellent potential to reduce poverty and inequality and promote sustainable development, especially for women in rural areas (Akinbami et al. 2019). This statement is also supported by Ball (2020), noting that there is a research gap in the economic field, especially regarding the role of women in organic farming, even though women are more often involved in organic farming than men. Thus, more research needs to be done to understand the dynamics of rural entrepreneurship or business and develop models that fit the rural context. One business that is currently growing in rural areas is organic farming (Mishra et al. 2019).

Organic farming, which relies on environmentally friendly cultivation practices, offers a more sustainable alternative to conventional farming (Sapbamrer and Thammachai, 2021). With the increasing public awareness of a healthy lifestyle, the demand for organic agricultural products, especially vegetable products, is increasing daily (Fausiah et al. 2021). Based on data from the Aliansi Organik Indonesia (2020), the total organic farmland in Indonesia in 2018 reached 251,630.98 hectares, of which 122,01 hectares were used for organic vegetable cultivation. Research shows that consumers trust organic products more because they are safer to consume and positively impact the environment (Nguyen et al. 2019). Nonetheless, the development of organic farming, especially at the village level, still faces various challenges. For example, the Mekar Sari Women Farmers Group (WFG) is experiencing challenges in increasing productivity and market stability. Data obtained based on field observations show that in 2020-2021, the productivity of organic vegetables at WFG Mekar Sari reached a high point of around 280 kg, while the lowest production was around 43 kg. The average yield has decreased by 84% in recent years, which is caused by market changes due to the Covid-19 pandemic. In addition, market instability remains uncertain, with fluctuating vegetable prices leading to a 57% to 90% decrease in farmers' income compared to the previous four years. To overcome these obstacles, applying Business Model Canvas for Sustainability (BMCS) can be an effective solution. It can help farmer groups identify business opportunities, manage risks, and develop sustainable strategies to improve competitiveness and the welfare of village communities.

Based on previous research, sustainable business models are essential and have yet to be widely applied at the village scale, especially among women farmer groups. This research proposes to implement the BMCS framework to analyze the existing business model of Mekar Sari's WFG as a business that focuses on sustainability. This research aims to provide a clear picture of the current business model implemented by Mekar Sari's WFG and identify the main obstacles faced in running the business model so that it can be the basis for designing a sustainable development strategy.

### **METHODS**

The research was conducted in Neglasari Village, Dramaga Sub-district, Bogor District, West Java, Indonesia. The research was conducted for 3 months for one case study from July to September 2024. The selection of case studies was based on the amount of organic vegetable production in several villages in Bogor Regency with small-scale farmers in rural areas. The research method used is a descriptive method with a qualitative approach. This study's sample selection of respondents used a purposive sampling method of 20 respondents. The sample consists of 17 farmers who are prominent members of Mekar Sari's WFG, one respondent who is the Head of the OKE FARM, and two respondents from the government, namely the Village Head and Secretary of Neglasari Village. The selection of respondents is based on criteria that consider their expertise and experience in organic farming and their role as stakeholders who are directly involved in the organic vegetable business, especially in vegetable cultivation in Mekar Sari's WFG. The data collected consisted of primary data obtained through indepth interviews to explore in-depth information from individual perspectives, focus group discussions (FGD) to obtain collective perspectives, and direct observation to observe practices in the field. Meanwhile, secondary data was obtained from various sources, such as the Badan Pusat Statistik (BPS), the agriculture office, the village office, WFG internal documents, and related scientific journals.

The data collection techniques used were triangulated, combining several data collection techniques (Figure 1). The first interview was conducted with the head of WFG, Mekar Sari, to obtain an overview of the current situation and challenges. In addition, interviews were conducted using the BMCS script and open-ended questions for board members, long-time partners, and customers to gain a more comprehensive understanding of the business model and the application of the sustainable business model concept.

The analysis technique used in designing this business model will refer to the book Developing Business Models with the Sustainable Business Canvas: Manual for Conducting Workshops, designed by Tiemann and Fichter (2016). BMCS is a strategic management tool designed to formulate a company's business model by considering sustainability aspects in one canvas. This framework has been chosen as the primary

foundation for facilitating the design process, analysis of sustainability concepts, and organizational business activities.

This research began focusing on WFG Mekar Sari, the study object. This case study focuses on a rural vegetable business with growth potential. Mekar Sari's WFG, which operates in the organic farming sector, was chosen as the research object because it faces common challenges of organic farming groups in Indonesia, such as price fluctuations, market limitations, and lack of external support. These conditions make it relevant to analyze in the context of sustainable business model development. The research was carried out through three main approaches: literature study, field observation, and interviews to understand the business's conditions. Once the data is collected, the next step is to analyze the existing business model using the BMCS framework. This analysis evaluates how current business models have integrated sustainability aspects in practice, especially at the village level. The results of this analysis are then used to identify the 10 main elements of BMCS (Figure 2).

Using the Business Model Canvas for Sustainability (BMCS), this study analyzes each component of the WFG business model in depth. The discussion of this research is divided into two parts: A description of WFG's profile and business processes and an analysis of the visual representation of the BMCS.

### **RESULTS**

The results of this research discussion use Business Model Canvas for Sustainability (BMCS) analysis. The data processed by BMCS analysis is primary data obtained from direct interviews with farmer respondents, village heads, village secretaries of Neglasari, and previous business partners using questionnaire tools. The following are the results of data processing using BMCS components.

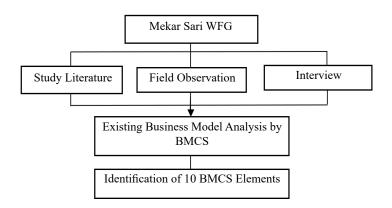


Figure 1. Research framework



Figure 2. Business Model Canvas for Sustainability (BMCS) (Tiemann and Fichter, 2016)

# Overview of the Profile and Business Processes of Mekar Sari Women Farmers Group, Neglasari Village

Mekar Sari Women Farmers Group was established in 2012 as a learning class to become a forum for learning, cooperation, and production for its members. WFG Mekar Sari has 20 members and initially focuses on agricultural activities. This group was formed through the initiative of the Human Initiative in collaboration with PT Paragon Technology and Innovation in the village community empowerment program. Over time, WFG Mekar Sari has developed both in business scale and organizational structure. The business activities carried out by WFG Mekar Sari are in line with Sustainable Development Goals (SDGs) numbers 5 and 8. The main goals of the SDGs are to achieve social welfare, economic growth, and environmental sustainability (Sjaf et al. 2021).

In 2019, the Mekar Sari Women Farmers Group started organic farming activities with a focus on leaf vegetables (kailan, kale, lettuce, pakcoy, spinach, knicker), fruit vegetables (cayenne pepper, tomatoes), and grains (soybeans, beans, eggplant). Besides producing fresh vegetables, WFG Mekar Sari also does further processing into processed products such as organic tempeh, organic salad, ready-to-eat vegetables, and organic spinach chips. To expand marketing, WFG Mekar Sari collaborates with OKE FARM as a distribution partner by utilizing home yard land for distribution activities and product packaging houses. WFG Mekar Sari also received support from ICTS through the Human Initiative through training for trainers (ToT) in smart organic farming. This training aims to increase the capacity of group members to manage post-harvest organic agricultural products and organic vegetable cultivation techniques. In addition to training, WFG Mekar Sari also received financial assistance by planting gutters and business capital to support its business development. According to Oktavia and Saharuddin (2015), the programs designed by stakeholders aim to improve the ability of farmers' human resources to manage technical and business aspects of agriculture.

The cultivation of organic vegetables by WFG Mekar Sari entirely relies on natural ingredients without synthetic chemicals. The results of the interview with the head of the Women Farmers Group (WFG) Mekar Sari show that the organic vegetable cultivation process carried out by WFG Mekar Sari includes the stages of land preparation, seeding, planting, maintenance, harvesting, post-harvest, and distribution. WFG Mekar Sari successfully produces organic vegetables with an average of 200-300 kg per month, including various types of vegetables such as kailan, katuk, papaya flowers, and various other types of leaf vegetables. The produce is distributed mainly to the distribution partner, OKE FARM.

In early 2022, the Mekar Sari Women Farmers Group (WFG) experienced a significant decline in the production and sales of organic vegetables. This was due to the impact of the pandemic that disrupted business management, especially in distribution. Other challenges faced include fluctuations in market demand, contract termination with business partners, and over-reliance on a single partner (OKE FARM) as a marketing channel. WFG Mekar Sari is working hard to recover its organic vegetable business. However, the main obstacles faced are limited markets and low selling prices. As an adaptation effort, WFG members now focus more on vegetable cultivation on their land with a smaller production scale. WFG Mekar Sari's marketing strategy has also changed. Their products are mainly sold to middlemen at much lower prices. The drastic drop in selling prices has harmed farmers' income.

# Identification of BMCS (Business Model Canvas for Sustainability) Existing Conditions in the Organic Vegetable Business WFG Mekar Sari

Identifying existing business models using the Business Model Canvas for Sustainability (BMCS) approach is a crucial first step in understanding current business operations. Through BMCS mapping, various aspects of the business can be comprehensively analyzed, including opportunities, strengths, weaknesses, and threats. According to Canestrino et al. (2019), by adapting the Business Model Canvas (BMC), it can develop a BMCS that allows the identification of critical factors to create social value. The identification of organic vegetable BMCS at WFG Mekar Sari can be illustrated in Figure 3.

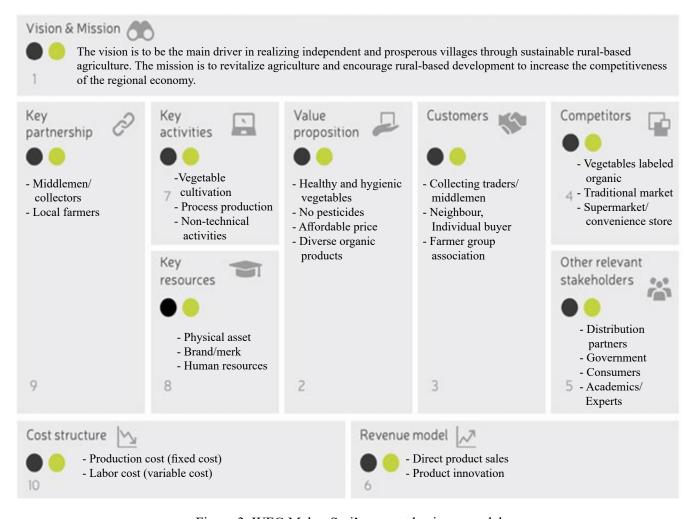


Figure 3. WFG Mekar Sari's current business model

BMCS enables businesses like WFG Mekar Sari to operate efficiently, effectively, and sustainably. As such, the company can identify aspects that need improvement and take appropriate action to achieve its business goals. The following is an explanation and content of each of the 10 BMCS elements:

#### Vision and Mission (VM)

Vision and mission are essential for every company. Both are guidelines for all members/teams to move in the same direction towards the same goal and are the key to the company's success in achieving sustainable growth. This aligns with research by Contreras et al. (2022), who asserted that vision, mission, and corporate values are critical components in building competitive advantage and encouraging all organization members to work together to achieve the company's strategic goals.

### **Value Proposition (VP)**

The term "value proposition" or "unique selling point" of a product or service refers to the statement of reasons why customers should use a particular good or service, as well as the benefits that customers will get from a product or service. This value proposition is the basis for companies to differentiate themselves from competitors and attract consumers. According to Wulandari et al. (2019), a value proposition is a critical element in the success of a business model. This value proposition reflects the four main principles of WFG Mekar Sari's business, as seen in Table 1. The proportion of business value that WFG Mekar Sari has is not only offering products but also providing solutions for consumers looking for healthy and quality food at affordable prices.

Table 1. WFG Mekar Sari's business value proposition

VP Element	Description
Healthy and hygienic vegetables	WFG Mekar Sari prioritizes product quality by ensuring that the vegetables produced are fresh, clean, and safe for consumption.
No pesticides	WFG Mekar Sari contributes to sustainable agriculture by avoiding chemical pesticides and providing healthier consumer alternatives.
Affordable price	WFG Mekar Sari is committed to making its products accessible by offering competitive prices.
Diverse organic products	WFG Mekar Sari provides various innovative vegetable products to meet consumers' diverse preferences and nutritional needs.

### **Customers Segment (CS)**

Businesses will only be able to survive for long with potential users to meet consumer needs. Every company, including WFG Mekar Sari, must divide the market into segments based on consumer characteristics, needs, and behavior.

WFG Mekar Sari's biggest customers are the traders or middlemen who supply the Dramaga market and surrounding areas. This segment accounts for more than 90% of total sales. In addition, a segment of individual buyers consists of residents and farmer group members. However, the contribution of this segment to total sales is still relatively small, at less than 10%. Based on observation, WFG Mekar Sari's customers have diverse and unstable characteristics. Product purchases also vary depending on consumer needs. According to Herista (2015), each product attribute's level of importance and frequency of use influence customer preferences. Based on this description, WFG Mekar Sari currently relies heavily on the middlemen customer segment, which indicates that the revenue stream and business profits are highly dependent on the volume of orders from middlemen customers, which can jeopardize the sustainability of WFG Mekar Sari's business journey due to the lack of market reach.

### **Competitors (CP)**

Businesses engaged in organic products, such as WFG Mekar Sari, operate in a highly competitive environment. Traditional markets and supermarkets are the main competitors with the same target market, namely consumers looking for organic products, and offer various advantages, ranging from lower prices and ease of access to certified organic products, which can attract a broader range of consumers. The biggest challenge faced by WFG Mekar Sari is maintaining customer loyalty amidst increasingly fierce business competition. The need for organic certification is an

obstacle for WFG Mekar Sari in increasing product competitiveness in an increasingly competitive market. This competition is intensified by increasing consumer awareness of the importance of organic and healthy products. According to Sutarni et al. (2018), organic certification is the main determining factor for consumers in choosing organic vegetable products.

# Stakeholders (SH)

Stakeholders are parties that have an interest in or relationship with organizational activities. Stakeholders in the organic vegetable business at the Mekar Sari Women Farmers Group (WFG) have a crucial role in the business's success. They are individuals, groups, or organizations with a direct or indirect interest in the sustainability and development of WFG. Some of the main stakeholders involved can be seen in Table 2.

Each stakeholder has different interests and different levels of influence on WFG. Therefore, WFG needs to build good relationships with all stakeholders to achieve a common goal: to develop sustainable organic farming and benefit all parties involved, directly or indirectly. Fauzi et al. (2021) state that stakeholders are important in business activities to help develop the company's goals.

# Revenue Model (RM)

The revenue model of a business explains how the company makes money from its products or services. The model includes who pays, what is purchased, and how the price is determined. WFG Mekar Sari initially adopted a distribution partnership model with OKE FARM, which resulted in higher revenue. However, since the contract was terminated in 2021, the WFG switched to a direct sales model for wholesalers. This change in the revenue model significantly impacted WFG's income. Based on interviews, previously, with larger production volumes and higher prices, income

per farmer could reach IDR 350.000 to 3 million per month. After switching to wholesalers, the production volume decreased drastically, and the selling price was also lower, so the income per farmer dropped to around IDR 150.000 to IDR 300.000 per month. Further analysis shows that the partnership model with OKE FARM provides more significant benefits for WFG than selling directly to wholesalers. This is due to several factors, such as higher production volumes, more stable prices, and the possibility of long-term agreements. This aligns with research by Nugroho et al. (2015) that price influences consumer attitudes towards organic products. The pricing mechanism in WFG Mekar Sari is flexible and influenced by production volume and product type. Prices are often negotiated (dynamic pricing) directly with the collectors. The payment method commonly used is cash on delivery (COD) or cash payment when the goods are received.

Based on the description above, WFG Mekar Sari depends on middlemen to market its products. This makes farmers' income very vulnerable to fluctuations in production volume and prices offered by middlemen. If this condition continues, WFG's business growth will be hampered.

#### **Key Resources (KR)**

Key resources describe the primary resources enabling a company to create and offer value propositions, reach markets, maintain customer relationships, and obtain revenue streams. Based on observations and interviews, WFG Mekar Sari's key resources comprise several components. First, there are assets in the form of 6,000 m² of land and post-harvest processing facilities (packing houses). Second, human resources are a very vital asset. WFG Mekar Sari relies on local workers who are experienced in cultivating and post-harvest processing organic products. Third, financial resources

obtained from the personal capital of WFG members and village funds through village-owned enterprises (BUMDes) are the main drivers of operations. In addition, other critical key resources, namely the brand of organic vegetable products, are precious intangible assets, as seen in Figure 4.

In the context of WFG, the "Neglasari Farm" brand functions as a unique identity that distinguishes the products of this farmer group from competitors' products on the market. Brands can be categorized as precious intellectual resources. Brands differentiate products and increase consumer loyalty, making them more likely to choose "Neglasari Farm" products over competitors' products, according to Hidayat et al. (2024), emphasizing the importance of brand involvement in building consumer loyalty.

## **Key Activities (KA)**

The main key activities carried out by WFG Mekar Sari are vegetable farming and production processes. Based on the results of interviews and observations, the key activities carried out by WFG Mekar Sari are broadly divided into two parts, namely technical operational activities and non-technical operational activities. The key activities of WFG Mekar Sari's business activities can be seen in Table 3.

The success of the WFG-based organic vegetable business is highly dependent on the balance between non-technical and technical operational activities. The main activities of WFG Mekar Sari are limited to the production process and include direct product marketing to customers. According to Kamil et al. (2024), by identifying key activities, WFG can be more effective in allocating resources and achieving its business goals.

Table 2. Stakeholders of the organic vegetable business in WFG Mekar Sari

SH Element	Description
Distribution partners	Play a role in distributing WFG organic vegetable products to consumers. They are interested in maintaining product quality and continuity of supply.
Government	The government acts as a regulator, facilitator, and investor in organic farming. Government policies related to organic farming include certification, incentives, and pesticide regulations.
Consumers	Consumers are the final party in the value chain. They have an interest in product quality, safety, and price.
Academics/Experts	Play a role in developing organic farming technology and providing training to farmers.

## **Key Partnership (KP)**

Key partnerships describe collaborative relationships with external parties that provide access to resources, networks, or competencies crucial to a business's sustainability and growth. Examples of strategic partnerships include networks of suppliers, distributors, and other business partners. Based on interviews and observations, it is known that key partnerships in the WFG Mekar Sari business model still need to establish strategic partnerships with external parties. WFG's business activities are still limited to cooperation between members and local farmers and involve collectors and middlemen as regular consumers. The lack of access to information regarding potential business partners and understanding of partnership mechanisms have become major obstacles to expanding the marketing network. According to Pratama and Yuana (2022), this condition can threaten business sustainability due to dependence on a handful of consumers and limited opportunities to develop a broader market.

### **Cost Structure (CS)**

Cost structure describes the cost structure incurred by a company in operating its business model, creating value for customers, maintaining customer relationships, and generating revenue streams. The cost structure represents the total costs incurred by a company in running its business model (Wardana and Sitania, 2023). Based on the observations and interviews, it is known that the cost structures for the business model run by WFG Mekar Sari consist of fixed and variable costs. Fixed costs are costs that do not change in the short term, regardless of the amount of production. In the WFG Mekar Sari business model, fixed costs are 1) monthly agricultural production costs, including electricity, water, and depreciation costs for agricultural machinery and equipment. Variable costs are costs that change according to the level of production. The more production, the greater the variable costs, which consist of 1) seed costs; the more types and number of plants planted, the greater the seed costs incurred. 2) Organic pest and disease control costs. 3) Labor costs: labor used for planting, maintenance, and harvesting. 4) Packaging costs: Costs for product packaging depend on how many packs are produced.

Table 3. Important activities of the organic vegetable business at WFG Mekar Sari

Technical, operational activities	Non-technical operational activities
Organic vegetable cultivation begins with the following:	Marketing and sales:
Identification of land potential.	Pricing.
Preparation of production plans.	Market search.
Provision of facilities and infrastructure.	Sales.
Provision of seeds.	Capacity development:
The organic vegetable production process begins with the following:	Training.
Land preparation.	Product innovation (improve existing product).
Planting and transplanting seedlings.	Institutional management.
Plant care (watering, weeding, fertilizing, pest control).	
Harvest and post-harvest (sorting, cleaning, packaging).	





Figure 4. WFG Mekar Sari products

# **Managerial Implications**

This study has successfully developed a business model tailored to the Mekar Sari Women Farmers Group (WFG) needs. Analysis using the Business Model Canvas for Sustainability (BMCS) framework, this study successfully identified the business components implemented by the Women Farmers Group (WFG) Mekar Sari. Through analysis using the BMCS framework, this study identified the strengths and weaknesses of the existing business and opportunities for improvement through 10 BMCS elements. The results of this analysis indicate that WFG Mekar Sari has the potential to improve its business performance by making adjustments to several key elements, such as customer segments, competitors, key partnerships, and revenue models. This study also identified the obstacles faced by WFG Mekar Sari, such as market limitations, product certification, and its impact on farmers' income. The results of this study can be used as a basis for formulating better business strategies so that WFG Mekar Sari can increase revenue, expand the market, and achieve sustainability and business performance. BMCS can be used as a business model analysis tool that can be considered for achieving a more sustainable business.

# CONCLUSIONS AND RECOMMENDATIONS

#### **Conclusions**

The results of the identification of the business model implemented by WFG Mekar Sari currently illustrate that the WFG business picture has several obstacles in running its business model; these obstacles lie in market competition, customer segments, and prominent partnerships, where these obstacles affect the revenue model of WFG Mekar Sari's organic vegetable business. High dependence on collectors and middlemen as the primary customers has limited the revenue flow and made the business vulnerable to market fluctuations. In addition, limited direct market access and low innovation in marketing are also barriers to business growth. Therefore, a sustainable business strategy is indispensable for its future development.

#### Recommendations

The results of this study form the basis for Mekar Sari's WFG sustainable development strategy with a focus

on expanding the customer segment through digital marketing and strategic partnerships with retailers, hotels, and restaurants. Strengthening cooperation with cooperatives, distributors, and organic communities can reduce dependence on middlemen and increase income stability. Marketing diversification through e-commerce and direct sales is also needed to improve competitiveness. Implementation of this strategy requires close coordination with stakeholders, with success measured by increased market reach, product credibility, and bargaining position in the supply chain.

**FUNDING STATEMENT:** This research received no specific grant from public, commercial, or not-for-profit funding agencies.

**CONFLICTS OF INTEREST:** The author declares no conflict of interest.

### REFERENCES

- Akinbami, C. A. O., Olawoye, J. E., Adesina, F. A., & Nelson, V. (2019). Exploring potential climate-related entrepreneurship opportunities and challenges for rural Nigerian women. Journal of Global Entrepreneurship Research, 9(1). https://doi.org/10.1186/s40497-018-0141-3
- [AOI] Aliansi Organik Indonesia. (2020). Statistik pertanian organik Indonesia 2019 (Vol. 53, Issue 9). Retrieved Oktober 15, 2024, from https://aoi.ngo/en/
- Ball, J. A. (2020). Women farmers in developed countries: a literature review. Agriculture and Human Values, 37(1), 147–160. https://doi.org/10.1007/s10460-019-09978-3
- Bocken, N., Boons, F., & Baldassarre, B. (2019). Sustainable business model experimentation by understanding ecologies of business models. Journal of Cleaner Production, 208, 1498–1512. https://doi.org/10.1016/j.jclepro.2018.10.159
- Bocken, N. M. P., de Pauw, I., Bakker, C., & van der Grinten, B. (2016). Product design and business model strategies for a circular economy. Journal of Industrial and Production Engineering, 33(5), 308–320. doi.org/10.1080/21681015.2016.1172 124
- Canestrino, R., Ćwiklicki, M., Di Nauta, P., & Magliocca, P. (2019). Creating social value through entrepreneurship: the social business model of La Paranza. Kybernetes, 48(10), 2190–

- 2216. https://doi.org/10.1108/K-03-2018-0135
- Cardeal, G., Höse, K., Ribeiro, I., & Götze, U. (2020). Sustainable business models—canvas for sustainability, evaluation method, and their application to additive manufacturing in aircraft maintenance. Sustainability, 12(21), 9130. https://doi.org/10.3390/su12219130
- Contreras Pacheco, O. E., Pirazán Parra, A., & Villarreal Pinzón, M. (2022). Misión, visión, and value apropiación: a correlational analysis. Cuadernos de Administración, 38(74), 1–16. https://doi.org/10.25100/cdea.v38i74.11955
- Fausiah, E., Sarma, M., & Najib, M. (2021). Customer preference and satisfaction level toward organic vegetable attribute (case study on Top Buah Segar Cibubur). Indonesian Journal of Business and Entrepreneurship, 7(1), 53–62. https://doi.org/10.17358/ijbe.7.1.53
- Fauzi, F., Antoni, D., & Suwarni, E. (2021). Mapping potential sectors based on financial and digital literacy of women entrepreneurs: a study of the developing economy. Journal of Governance and Regulation, 10(2), 318–327. https://doi.org/10.22495/JGRV10I2SIART12
- Ford, S., & Despeisse, M. (2016). Additive manufacturing and sustainability: an exploratory study of the advantages and challenges. Journal of Cleaner Production, 137, 1573–1587. https://doi.org/10.1016/j.jclepro.2016.04.150
- Geissdoerfer, M., Vladimirova, D., & Evans, S. (2018). Sustainable business model innovation: A review. Journal of Cleaner Production, 198, 401–416. https://doi.org/10.1016/j.jclepro.2018.06.240
- Herista, M. I. (2015). Sikap dan preferensi konsumen buah jeruk lokal dan buah jeruk impor (kasus kota Bandar Lampung provinsi Lampung) (Master's thesis). Bogor: Graduate School, IPB University.
- Hidayat, D., Alfaizah, M. A., Rumangkit, S., & Pratiwi, C. P. (2024). Reward and consumer brand engagement: building brand loyalty in the ondemand service platform. Indonesian Journal of Business and Entrepreneurship (IJBE), 10(3), 467–475. https://doi.org/10.17358/ijbe.10.3.467
- Joyce, A., & Paquin, R. L. (2016). The triple layered business model canvas: A tool to design more sustainable business models. Journal of Cleaner Production, 135, 1474–1486. https://doi.org/10.1016/j.jclepro.2016.06.067
- Kamil, F., Satria, A., & Zulbainarni, N. (2024). The expertise business development strategy of

- PT Prima Kelola IPB (subsidiary company of pt blst group) through business model canvas approach. Indonesian Journal of Business and Entrepreneurship (IJBE), 10(3), 476–487. https://doi.org/10.17358/ijbe.10.3.476
- Mishra, P., Singh, P. P., Singh, S. K., & Verma, H. (2019). Sustainable agriculture and benefits of organic farming to special emphasis on PGPR. Role of Plant Growth Promoting Microorganisms in Sustainable Agriculture and Nanotechnology, 75–87. https://doi.org/10.1016/B978-0-12-817004-5.00005-1
- Nguyen, H. V., Nguyen, N., Nguyen, B. K., Lobo, A., & Vu, P. A. (2019). Organic food purchases in an emerging market: The influence of consumers' factors and green marketing practices of food stores. International Journal of Environmental Research and Public Health, 16(6), 1037. https://doi.org/10.3390/ijerph16061037
- Nugroho, T., Sumarwan, U., & Kirbrandoko, K. (2015). Factors Influencing the purchase decision of organic tofu. Indonesian Journal of Business and Entrepreneurship, 1(3), 115–126. https://doi.org/10.17358/ijbe.1.3.115
- Oktavia, S., & Saharuddin. (2015). The relationship between role of the stakeholders and community participation in Agropolitan program in Karacak Village, Leuwiliang Subdistrict, Bogor District. Sodality: Jurnal Sosiologi Pedesaan, 1(3), 231–246. https://doi.org/10.22500/sodality.v1i3.9407
- Osterwalder, A., & Euchner, J. (2019). Business model innovation: An interview with Alex Osterwalder. Research-Technology Management, 62(4), 12–18. https://doi.org/10.1080/08956308.2019.161 3114
- Pato, M. L., & Teixeira, A. A. C. (2016). Twenty years of rural entrepreneurship: a bibliometric survey. Sociologia Ruralis, 56(1), 3–28. https://doi.org/10.1111/soru.12058
- Pratama, A. E., & Yuana, P. (2022). Analisis pengembangan bisnis dengan menggunakan BMC (Business Model Canvas). Jurnal Kewirausahaan Dan Inovasi, 1(2), 163–169. https://doi.org/10.21776/jki.2022.01.2.05
- Sapbamrer, R., & Thammachai, A. (2021). A systematic review of factors influencing farmers' adoption of organic farming. Sustainability (Switzerland), 13(7), 3842. https://doi.org/10.3390/su13073842
- Sjaf, S., Kaswanto, K., Kuniawati Hidayat, N., Ardinal Barlan, Z., Elson, L., Sampean, S., & Firda F Gunadi, H. (2021). Measuring achievement

- of sustainable development goals in rural area: a case study of Sukamantri Village in Bogor District, West Java, Indonesia. Sodality: Jurnal Sosiologi Pedesaan, 9(2). https://doi.org/10.22500/9202133896
- Sutarni, S., Trisnanto, T. B., & Unteawati, B. (2018). Preferensi konsumen terhadap atribut produk sayuran organik di Kota Bandar Lampung. Jurnal Penelitian Pertanian Terapan, 17(3), 203–211. https://doi.org/10.25181/jppt.v17i3.337
- Tabares, A., Londoño-Pineda, A., Cano, J. A., & Gómez-Montoya, R. (2022). Rural entrepreneurship: an analysis of current and emerging issues from the sustainable livelihood framework. Economies, 10(6), 142. https://doi.org/10.3390/economies10060142
- Tiemann, I. and Fichter, K. (2016). Developing business models with the Sustainable Business Canvas: Manual for conducting workshops. Oldenburg and Berlin. 1–37.

- Upward, A., & Jones, P. (2016). An ontology for strongly sustainable business models: defining an enterprise framework compatible with natural and social science. Organization and Environment, 29(1), 97–123. https://doi.org/10.3390/economies10060142
- Wardana, M. H., & Sitania, F. D. (2023). Strategi pengembangan bisnis melalui pendekatan business model canvas pada Kedai Kabur Bontang. Jurnal Teknik Industri (JATRI), 1(1), 10–17. https://doi.org/10.30872/jatri.v1i1.492
- Wulandari, S., Rendra, M., Alam, P. F., Kusumasari, T. F., Dewi, A. S., & Gustyana, T. T. (2019). The development of Pantiku application business strategy using business model canvas approach. Indonesian Journal of Business and Entrepreneurship, 5(3), 231–241. https://doi.org/10.17358/ijbe.5.3.231