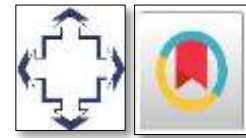


Sustainable Business Model in Small and Medium-Sized Enterprises: A Study in Yogyakarta and Magelang



Octavia Lhaksmi Pramudyastuti ^{a,1*}, Chaidir Iswanaji ^{b,2}, Supanji Setyawan ^{c,3},
Atika ^{d,4}, Alex Johannes Simamora ^{e,5}

^{abcde} Universitas Tidar, Kapten Suparman Street Number. 39, Magelang City 56116, Indonesia

¹ octaviaovi@untidar.ac.id*; ² chais@untidar.ac.id; ³ supanji@untidar.ac.id; ⁴ atika@untidar.ac.id;

⁵ alexjohanessimamora@untidar.ac.id

* corresponding author

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ABSTRACT

This study aims to analyze Yogyakarta and Magelang Small and Medium-Sized Enterprises (hereafter) SMEs based on sustainable business model implementation. This study gives new evidence of Yogyakarta and Magelang SMEs' businesses based on sustainable business model where Indonesian SMEs' experience the economic crash of Covid-19. This study uses a qualitative descriptive method. Specifically, uses method of qualitative evaluative where this study evaluates SMEs business process by using sustainable business model. Research sample includes 40 SMEs in Yogyakarta and Magelang. Evaluation of SMEs' business is based on elements of sustainable business model including key partner, key activity, key resources, value proposition, customer relationship, channels, customer segment, cost structure, revenue stream, cash flow management, pivoting plan, and ecological concern. This study uses a "yes and no" questionnaires with 13 questions that refers to the elements of sustainable business. Based on the result, this study finds that most SMEs in Yogyakarta and Magelang, implement the elements of a key partner, key activity, key resources, value proposition, customer relationship, channels, cost structure, pivoting plan, and ecological concern. On the other hand, most SMEs do not implement elements of customer segment, revenue stream, and cash flow management. Socialization and special training is needed from various parties related to the implementation of sustainable business models for SMEs.

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1. Introduction

The pandemic of Covid-19 gives significant impacts on the world including Indonesia. One of the impacts is going concern problems in the business field (Kusuma, 2021). Going concern captures the ability of the company can fulfill the liabilities of their business. Going concern problem occurs when there is a negative financial trend, financial difficulties, and continuous internal problems (Lynch et al., 2020). The pandemic of Covid-19 is not only strike big business and industry but also small businesses. Based on a survey of the International Monetary Fund in September 2020, small and medium-sized enterprises (hereafter SMEs) experience 9 percent of liquidity problems without any government intervention to help SMEs (Gourinchas et al., 2020). Since SMEs play important role in economic growth for majority countries (Marsiwi et al., 2020), the problem of going concern in SMEs becomes a serious issue. Soetjipto (2020) finds that 96 percent of SMEs in Indonesia experience the negative consequences of Covid-19 such as 75 percent of them experiencing significant sales fall. This condition becomes ironic since there is 4.2 percent SME growth each year in 2016-2019 where SMEs give an average contribution of above 50 percent of the Indonesian gross domestic product in the last three years (Aziz et al., 2018). It shows that SMEs can improve social economics independently and increase economic growth in Indonesia. Since SMEs play an important role, the SME sector becomes a priority business in Indonesia.

Based on Indonesian Act no. 9 1995 (Undang- Undang Nomor 9 Tahun 1995), SMEs refer to small businesses where that have less than 50 employees with net assets of Rp. 200 million (excluding land and building) and maximum sales of Rp. 1 billion. SMEs in Indonesia have to be owned by Indonesian people with the business status of an individual business, business entity, or cooperative. In general, SMEs are individual businesses such as local restaurants, small shops, local construction, laundry, local clothes shop, and other temporary businesses that are open based on the specific season or special period. Productive economic operations carried out by a business entity with a turnover and yearly wealth higher than medium-sized firms, such as state owned or private firms or joint ventures, are not included in the SMEs category (Amalia & Melati, 2021).

Normally, SMEs have to face global competition to ensure their businesses survive. However, in the pandemic of Covid-19, SMEs not only have to face global competition but also deal with economic crisis consequences to the current and future business performance (Fabeil et al., 2020). SMEs need to make strategic changes to lead them to more integrative business. Integrative business can be built by make collaborations with other stakeholders such as suppliers, producers, and customers to generate effective supply chain management. Effective supply chain management needs a good information system to support effective coordination (Santoso et al., 2013).

Going concern and survival problems, economic crisis, collaboration, and effective supply chain management lead to the need for teamwork between stakeholders so SMEs can survive and get the ability to make post-Covid-19 restructure and revitalization. It allows SMEs to grow and get trust again (Hadi et al., 2020). Effective and rapid innovation can be used to create new and fresh business activities to reduce the negative consequences of the Covid-19 pandemic and ensure business sustainability by utilizing technology benefits such as social media and online shops as an alternative solution to business shutdown problems (Fitriyani et al., 2021; Latifah et al., 2022). SMEs' business shutdown comes from the regulation of social distancing and working from home by the government (Fitriyani et al., 2021).

This study proposes a sustainable business model for SMEs as an alternative solution for small business sustainability. A sustainable business model allows SMEs to facilitate documentation of stakeholders' data so SMEs can manage business information easier and

faster. This study proposes a sustainable business model for SMEs since SMEs in Indonesia still have weaknesses of competitive advantage, lack of business network, and absence of stakeholder information. Sustainable business management can give benefits SMEs since it allows SMEs to make specific competence, strategy option, and sustainable competitive advantage (Grant, 2019). Sustainable competitive advantage can be achieved by implementing a business model that can bring managers to identify, acquire, and develop a strategic resource to meet an optimal performance (Ray et al., 2004). This study contributes gives new evidence in Indonesia about a business model for SMEs after the economic crisis of Covid-19. This study also contributes to supporting the urgency of government programs including National Economic Recovery Post-Covid.

SMEs' business management is important to strengthen the management of marketing, human resource, financial, and operational (Wahyuni & Wibawani, 2020). In marketing improvement, business management can develop effective digital marketing systems to reach wider people (Tasruddin, 2015). In human resource enhancement, business management can increase employee knowledge and skill to manage and organize business effectively (Sandiasa & Widnyani, 2017). In the financial aspect, business management can promote effective and efficient financial management to access capital and funding resources and build good financial reporting and accounting (Setyawardani et al., 2019). In the operational aspect, business management can increase product and service quality, cost efficiency, and sufficient distribution.

This study aims to the analysis of 40 SMEs in Yogyakarta and Magelang based on sustainable business model implementation. It gives benefits for SMEs to have a sustainable competitive advantage and the ability to utilize available resources to manage SMEs business. This study analyzes the needs and planning of businesses to build a sustainable business model. This study gives new evidence of Indonesian SMEs' businesses based on sustainable business model where Indonesian SMEs' experience the economic crash of Covid-19.

2. Literature Review

Small and Medium-Sized Enterprises (SMEs)

SMEs in Indonesia can be a core of Indonesia's economy where there are 56.54 million SMEs and which is equivalent to 99.99 percent of all business units (Isa & Mangifera, 2019). SMEs contribute to some aspects of Indonesian economics such as national investment creation, gross domestic product, national human resource absorption, and national foreign income (Humaira & Sagoro, 2018). However, SMEs face the challenges of industry 4.0 including resource limitation, low bargaining power, and ineffective business model since SMEs have the unique characteristic to close to information technology (Müller, 2019). In this case, SMEs need to be adjusted solutions to face the challenges. SMEs also consist of some sectors, just like big companies, such as services, retail, and manufacturing sectors. Manufacturing SMEs have complex characteristics since the business has to fabricate many kinds of resources to generate outputs. Manufacturing SMEs need to be adaptive to business environment changes by taking decisions effectively and faster to maintain their business existence compare to other competitors (Handoko et al., 2015).

The economic crash during the period of Covid-19 has a unique complexity and crisis (Gourinchas et al., 2020). Government makes a policy of lockdown and social distancing that leads to disruption of production and demand of products. It gives threats, especially for a small businesses such as SMEs. Some negative consequences of Covid-19 include work termination that leads to higher unemployment, uncollectable debt that leads to lower banking performance, and higher fiscal expenses to overcome the pandemic condition. Gourinchas et al. (2020) suggests that SMEs experience a significant crush since SMEs have a bigger

possibility of bankruptcy. SMEs' activities depend on daily cash turnover. Reduction of people's income leads to a reduction in SMEs products demand and revenues. Since SMEs have lower and limited cash reserves, they tend to depend on banking loans, on the other hand, the pandemic of Covid-19 leads banks to restrict loans (Gourinchas et al., 2020). In this case, SMEs get liquidity, or even worse, solvability and bankruptcy problems.

Business Model

Business model refers to a tool to create value by sustainable innovation that needs analysis knowledge and ability. Boons & Lüdeke-Freund (2013) suggest the business model elements consist of value proposition, supply chain, customer interface, and financial model. Value proposition explains the embedded value in the product or service. The supply chain suggests the relationship of business upstream and structured and managed suppliers. Customer interface suggests the relationship of business downstream and structured and managed customers. The financial model facilitates the detailed information of cost and revenue of value proposition, supply chain, and customer interface and distributes the information to stakeholders. Wirtz (2020) also suggests the stream of business model. First, the business model focuses on product technology and web-based service. Second, the business model is made as a strategic management tool to improve the value chain. Third, the business model provides market competition benefits by improving the efficiency of value chain improvement.

SMEs have to have elements of business plan, business model, strategic planning, and entrepreneurship ability to improve their business (Swasty, 2015). In the context of SMEs, the business model can be an innovation to show the ability to improve their business. The business model is needed to face the digitalization era in the economic field (Bouwman et al., 2019). In this case, the business model is expected to utilize business opportunities and stimulate SMEs to use information technology in the digitalization era.

Sustainable Business Model

The business model is expected to be an innovation to develop a sustainable business. A sustainable business model provides the ability to involves in the global market and supply-demand improvement analysis continuously. The elements of the business model can provide a system and mechanism to support sustainable development. In this case, a sustainable business model helps SMEs to integrate value propositions and contribute to the value of a customer, the environment, and society (He & Ortiz, 2021). Sustainable business modeling contributes, specifically, to the manufacturing sector. A sustainable business model helps manufacturing businesses to adapt to and utilize the benefit of current technology (Feng et al., 2021). The sustainable business model also guides for businesses to achieve profits, customer targets, and customer characteristics. Furthermore, a sustainable business model leads businesses to create, distribute, and generate value (Barth et al., 2021).

Sustainable Business Model for SMEs

Compare to big companies that develop their business model based on main activities and resources to generate innovation for all business model elements (Fitriasari, 2020), SMEs have no formal and rigid strategy and business model since SMEs business model raises naturally (Laudien & Daxböck, 2017). Marquès (2017) explain that SMEs use components of the value chain, value proposition, and target customer as the focus of strategy and business model. In this case, SMEs have to have the ability to build a business model that is suitable for business and environmental changes to face competition.

Business model canvas can be a tool to help SMEs to identify and describe business model elements (Osterwalder & Pigneur, 2010). There are 9 elements of the business model canvas that capture customers, supplies, infrastructures, and financial power (Fitriasari, 2020).

Key Partner	Key Activities	Value Proposition	Customer Relationship	Customer Segment
	Key Resources		Channel	
Cost Structure			Revenue Stream	

Figure 1. Business Model Canvas

Source: Franca et al. (2017)

Figure 1 shows the elements of the business model canvas where the elements can promote value creation and profit maximization. The elements of the business model canvas include key partners, key activity, key resources, value proposition, customer relationship, channels, customer segment, cost structure, and revenue stream. Key partner refers to a business partner network that focuses on how SMEs build a relationship with suppliers and partners to improve the business. The idea of a key partner comes from the condition where businesses in the ecosystem where there is no one will survive if they live alone (Fitriasari, 2020). Key partner element, such as supplier network, is important for SMEs to make a plan of resource optimization, business risk reduction, business scale improvement, bigger market competition, and new customer segment. An effective supply chain supports business activities' performance.

Key activity refers to important activity that has to be implemented such as the type of core business. Manufacturing SMEs can have some activities such as production, promotion, and selling activities. SMEs in the service sector can have activities of the service provider to solve customer problems. A key activity is important to create and distribute values to the customer that leads to profit maximization. Key resource refers to the main resource of SMEs to run the business including physical, intellectual, human, and financial resources. SMEs' resource determines the opportunity creation to create and distribute values to the customer, enter the new market, and compete with competitors. Resource management supports business development to put the business in a better industry position.

Value proposition refers to the provided value for the customer including products and services that value the target customer. Cavallari et al. (2015) suggests value proposition is important for a business entity to distribute intrinsic value such as product or service access for the customer, innovation, development of new and relevant features, identity of product brand, price reasonability, product and service risks, and development of product design.

Customer relationship captures how SMEs build a relationship with customers. A good relationship is initiated by making a product that is suitable to customers' needs and tastes. Different customer segment has different need, expectation, taste, and approach. SMEs have to have the ability to identify customers' needs, expectations, tastes, and approaches so the products can give value and benefit to customers. SMEs need to formulate a specific approach that is suitable to target customers. SMEs also have to determine sharply the customer segment so SMEs can distribute value to the customer which leads to higher profit.

Channel is an important element for SMEs as a distribution tool of promoted value. Channel refers to the medium used by SMEs for communication with customers to promote value and benefit (Fitriasari, 2020). Channel includes direct and indirect channels. SMEs should choose which one is the best channel that provides accuracy and precision to achieve the target customer segment. The customer segment refers to the target customer who will get value or product distribution. SMEs not only have to adjust the value and benefit of products or services to the target customers, but also formulate sufficient promotion strategy, infrastructure, and channel of product access for the customer, or after-sales service. A sufficient strategy helps SMEs to get optimal feedback from a customer who already achieves the value of the product.

Cost structure refers to the cost paid by SMEs to run the business. Cost structure depends on the types of industry and strategy chosen by SMEs. In general, cost includes fixed and variable costs. Specifically, cost includes costs of production, marketing, maintenance, etc. Cost structure helps to evaluate and forecast costs and expenditures that have to be paid to SMEs. Cost structure plays an important role in SMEs' creating and distributing values to customers. Revenue stream refers to revenues achieved from different types or lines of products (Prasetyo et al., 2018). For example, SMEs in the traditional clothes sector (in the context of Indonesian, traditional clothes such as batik) can get revenues from batik as a fashion product, batik as an art product, training in batik pattern design, or reseller product. The variance of products leads to revenue achievement for SMEs and value creation for specific customers.

Business model canvas can be suitable for SMEs with some adjustments of business relevance (Fitriasari, 2020). Carter & Carter (2020) explain that there is a relationship between business design, strategy, and innovation in a scheme of business model where the business model is used as a business design process to put strategy as the business activities and leads to innovation. SMEs need to make a business model design, manage the business, and take important decisions in stable, crisis, or uncertain conditions. SMEs also need to ensure their business model can accommodate condition changes and business management can give sufficient responses as feedback to change the business model if the business does not suitable anymore for the changed condition. SMEs need to assess and mitigate the business risk of uncertain conditions.

This research uses a business model canvas (França et al., 2017) that is modified by factors of sustainability (cash flow management, pivoting plan, and ecological concern) to promote a sustainable business model for SMEs. Antikainen & Valkokari (2016) suggest that any business model, including the business model canvas, needs more integration with other elements so the business can be sustainable. Lüdeke-Freund & Dembek (2017) promote the elements of cash flow management, pivoting plan, and ecological concern as the determinant of sustainable business, especially for small businesses such as SMEs, as in figure 2.

Key Partner	Key Activities	Value Proposition	Customer Relationship	Customer Segment	Ecological Concern
	Key Resources		Channel		
Cost Structure		Cash Flow Management		Revenue Stream	
				Pivoting Plan	

Figure 2. Sustainable Business Model

Source: elaboration between França et al. (2017) and Lüdeke-Freund & Dembek (2017)

Figure 2 explains that the business model canvas can be integrated into cash flow management, pivoting plan, and ecological concern to create a sustainable business model. Cash flow management refers to the efficiency of cash outflow. SMEs need to manage their cash to reduce the use of cash to pay expenses (Wadesango et al., 2019). Expense reduction and efficiency are important for SMEs to survive in the crisis condition. Worse cash management leads to insufficiency of cash reserve. Revenues are not enough for SMEs to pay daily expenses so SMEs need sufficient cash reserve. In this case, SMEs need to have good liquidity by implementing effective cash flow management. SMEs can make cash reserve as emergency funding.

Pivoting plan refers to the SMEs' action to change their strategy of business since there is a change of condition that is not suitable to the current business condition. In the context of a crisis, a change of business strategy is important to ensure SMEs' survival. For example, SMEs do expense reduction by human resource reduction permanently or temporarily. SMEs also can change their target customers and choose the profitable ones. SMEs can prioritize the

order by profitable customers and delay non-profitable ones. SMEs also can reject some non-doable and non-profitable orders.

Ecological concern refers to the business response to the environmental aspect. Any business can create waste from operational activities (Andries et al., 2019). The environmental aspect becomes an important issue for stakeholders, investors, suppliers, and customers. The environmental issue plays an important role since SMEs have to ensure business sustainability (Andries et al., 2019). Business sustainability helps to control natural resource utilization to ensure future product demands (Pla-Julián & Guevara, 2019). This study aims to evaluate SMEs' business based on the sustainable business model. In this case, SMEs' business will be evaluated based on elements of the Business model canvas (key partner, key activity, key resources, value proposition, customer relationship, channels, customer segment, cost structure, revenue stream), cash flow management, pivoting plan, and ecological concern.

3. Research Method

This study uses a qualitative descriptive method. Specifically, this study uses method of qualitative evaluative where this study evaluates SMEs business process by using sustainable business model. We use manufacturing SMEs in Yogyakarta and Magelang, Indonesia. The respondents of the research are the owners of the SMEs. Based on questionnaires distribution, there are 55 questionnaires given back from SME owners. However, this study find 15 incomplete questionnaires. In this case, there are 40 SMEs as the research samples.

Research variables include 12 elements of a sustainable business model. Variables are measured by questionnaires of each sustainable business model element. The type of questionnaires is a "yes and no" question. Based on Osterwalder and Pigneur (2010), there are 13 items of questions for 12 elements as in table 1.

Table 1. Variable Measurement

Elements of Sustainable Business Model	Items
Customer Segments	Does the SMEs determine the target of market segment?
Value Proposition	Does the SMEs product capture the combination of product and service that can create value for specific customer target?
Channels	Does the SMEs product is promoted by various marketing method including manual and digital marketing?
Customer Relationship	Does the SMEs owner build the good relationship with customer by various method?
Revenue Stream 1	Does the SMEs only have one type of product?
Revenue Stream 2	Does the SMEs identify and separate revenue from each type of products?
Key Resource	Does the SMEs have key resource to develop the business?
Key Activities	Does the SMEs have specific strategic plan and important activities that have to be done to implement effective business model?
Key Partnersip	Does the SMEs have many networks of suppliers and other business partners to improve the business?
Cost Structure	Does the SMEs can capture all costs of 219usiness?
Cash Flow Management	Does the SMEs have functions of monitoring, analysis, and cash flow management in the financial management?
Pivoting	Does the SMEs already do the business strategy changes to avoid loss?
Ecological Concern	Does the SMEs run the business that friendly to the environmental aspects?

Data Analysis

This study aims to evaluate SMEs' business based on the sustainable business model. In this case, this study analyzes does SMEs run the business based on the implementation of elements of a sustainable business model. Table 2 shows the evaluation based on elements of a sustainable business model.

Table 2. Data Analysis

Key Partner: Does the SMEs have many networks of suppliers and other business partners to improve the business?	Key Activities: Does the SMEs have specific strategic plan and important activities that have to be done to implement effective business model?	Value Proposition: Does the SMEs product capture the combination of product and service that can create value for specific customer target?	Customer Relationship: Does the SMEs owner build the good relationship with customer by various method?	Customer segment: Does the SMEs determine the target of market segment?	Ecological Concern: Does the SMEs run the business that friendly to the environmental aspects?
	Key Resources: Does the SMEs have key resource to develop the business?		Channel: Does the SMEs product is promoted by varioys marketing method including manual and digital marketing?		
Cost Structure: Does the SMEs can capture all costs of bussiness?	Cash flow Management: Does the SMEs have function of monitoring, analysis, and cash flow management in the financial management?	Revenue Stream: <ul style="list-style-type: none"> - Does the SMEs only have one type of product? - Does the SMEs identify and separate revenue from each type of products? 		Pivoting Plan: Does the SMEs already do the business strategy changes to avoid loss?	

Source: Elaboration of previous studies and variable measurement

Table 2 shows the items of questions to evaluate whether SMEs implement each element of a sustainable business model. It shows how far SMEs implement and consider key partners, key activities, key resources, value propositions, customer relationships, channels, customer segments, cost structure, revenue stream, cash flow management, pivoting plan, and ecological concern in their business.

4. Results and Discussion

Descriptive Statistics

Respondent demographic includes SMEs characteristics and SMEs’ owners characteristics. Panel A shows the SMEs characteristics while panel B shows the SMEs’ owners characteristics.

Table 3. Respondent Demographic

Panel A. SMEs						
Characteristic	Minimum	Maximum	Mean	Std. Dev.		
SMEs owners’ age	21	70	44.80	13.019		
SMEs businesses’ age	0	24	6.93	5.924		
Panel B. SMEs’ Owners						
SMEs Product Line						
Characteristic		Traditional Clothes of Batik	Traditional Snack of Getuk	Food	Others	Total
Owners’ gender	Female	5	0	24	1	30
	Male	0	1	9	0	10

Source: processed data (2023)

In panel A, table 3 shows that the range of SME owners’ age is between 21 to 70 years old. The average value of SME owners’ age is 44.80 with a deviation of 13.019. The range of SME businesses’ age is between 0 (founded in 2022) to 24 years (founded in 1998). The average value of SME businesses’ age is 6.93 with a deviation of 5.924. In panel B, table 2 shows that there are 30 female owners and 10 male owners of SMEs. Product lines include

traditional clothes *batik*, a traditional snack of *getuk*, food, and others. Most SMEs sell food both by female and male owners (24 female owners and 9 male owners). Mostly traditional clothes *batik* sold by female owners.

Implementation of Sustainable Business Model by SMEs

Figure 3 and table 4 shows the implementation of sustainable business model by SMEs. Figure 3 explains the comparison which elements of sustainable business model that have and have not done by SMEs. On the other hand, table 3 explains the details of the implementation of sustainable business model of each product lines.

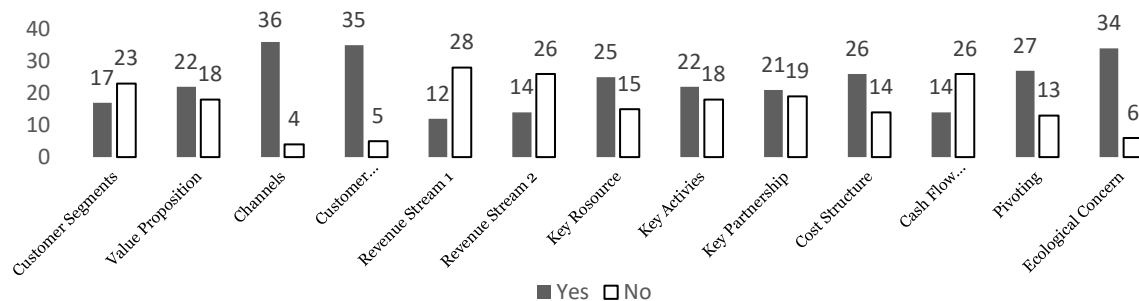


Figure 3. Implementation of Sustainable Business Model by SMEs

Source: proceed data (2022)

Figure 3 shows 12 elements of a sustainable business model including customer segments, value proposition, channels, customer relationship, revenue stream, key resource, key activities, key partnership, cost structure, cash flow management, pivoting, dan ecological concern. There are several SMEs that implement each element of a sustainable business model. Figure 3 can also be explained in detail in table 4.

Table 4. Main Findings

Elements of Sustainable Business Model	Implement-ation	SMEs Product Line				Total
		Traditional Clothes of <i>Batik</i>	Traditional Snack of <i>Getuk</i>	Food	Others	
Customer Segment	Yes	3	0	14	0	17
	No	2	1	19	1	23
Value Proposition	Yes	3	1	18	0	22
	No	2	0	15	1	18
Channels	Yes	5	1	29	1	36
	No	0	0	4	0	4
Customer Relationship	Yes	5	1	28	1	35
	No	0	0	5	0	5
Revenue Stream 1	Yes	1	1	10	0	12
	No	4	0	23	1	28
Revenue Stream 2	Yes	2	1	11	0	14
	No	3	0	22	1	26
Key Resource	Yes	3	1	20	1	25
	No	2	0	13	0	15
Key Activities	Yes	1	1	20	0	22
	No	4	0	13	1	18
Key Partnership	Yes	3	1	17	0	21
	No	2	0	16	1	19
Cost Structure	Yes	2	1	23	0	26
	No	3	0	10	1	14
Cash Flow Management	Yes	1	0	13	0	14
	No	4	1	20	1	26
Pivoting	Yes	2	1	24	0	27
	No	3	0	9	1	13
Ecological Concern	Yes	3	1	29	1	34
	No	2	0	4	0	6

Source: processed data (2023)

The element of customer segment gives information on whether SMEs have specific target customers as a market segment. Based on figure 3, there are 23 SMEs (57.5 percent of all 40 SMEs) have no specific target customer while there are 17 SMEs (42.5 percent of all 40 SMEs) have a specific target customer. Based on table 4, 82.6 percent (19 of 23) of SMEs with food products have no specific target customer. On the other hand, 60 percent (3 of 5) SMEs with *batik* products have specific target customers as market segments. In conclusion, most SMEs do not determine their customer segment. However, based on additional explanation by SME owners, SMEs that have customer segments make segments of kids, teenagers, male, and female customers.

The element of value proposition gives information on whether SMEs product provides value for the customer. Based on figure 3, there 22 SMEs (55 percent of all 40 SMEs) have a value proposition while there are 18 SMEs (45 percent of all 40 SMEs) have no value proposition. Based on table 4, SMEs with no value proposition include 15 SMEs with the food product, 2 SMEs with *batik* product, and 1 SME with other products. In conclusion, most SMEs provide value for the customer. Based on additional explanation by SME owners, value creation by SMEs comes from innovation such as online shopping and product packaging. The innovation gives more satisfaction to customers.

The element of the channel gives information on whether SME products are promoted by various marketing approaches, both manual and digital approaches. Based on figure 3, there 36 SMEs (90 percent of all 40 SMEs) promote their products by various marketing approaches while there are 4 SMEs (10 percent of all 40 SMEs) promote their products only by one type of marketing approach. Based on table 4, 4 SMEs that promote their products only by one type of marketing approach are SMEs with the food product. In conclusion, most SME products are promoted by various marketing approaches. Based on additional explanations by SME owners, SMEs promote their products on social media of WhatsApp, Instagram, and Facebook.

The element of customer relationship gives information on whether SMEs build a good relationship with customers in various methods. Based on figure 3, there 35 SMEs (88 percent of all 40 SMEs) can build a good relationship with customers while there are 5 SMEs (13 percent of all 40 SMEs) have no good relationship with customers. Based on table 4, 5 SMEs that have no good relationship with customers are SMEs with the food product. In conclusion, most SMEs build a good relationship with the customer. Based on additional explanations by SME owners, customer relationships built by the expo, testimony, good communication, souvenir, direct product consultation, price discount, and socialization of product.

The element of revenue stream gives information on whether SMEs have various products and separate revenues based on the products. Based on figure 3, there is 70 percent of 40 SMEs can generate more than one type of product while there is 30 percent (12 SMEs) can only generate one type of product. Moreover, there are 14 SMEs (35 percent of all SMEs) can identify and separate revenues based on types of products while there is 65 percent of all 40 SMEs do not identify and separate revenues based on types of products. The absence of revenue identification and separation based on products give it difficult for SMEs to assess the profitable and non-profitable products. In conclusion, most SMEs have no more than one product type and separation of revenue from different product types.

The element of key resources gives information on whether SMEs have a key resource to run and develop the business. Based on figure 3, there 25 SMEs (63 percent of all 40 SMEs) have a key resource to run and develop the business while there are 15 SMEs (37 percent of all 40 SMEs) have no key resource to run and develop the business. Based on table 4, the majority of SMEs that have a key resource to run and develop the business are 20 SMEs with food products. In conclusion, most SMEs have key resources. Based on additional explanation by SME owners, the key resource includes qualified employees, machinery, product quality, and service quality.

The element of key activity gives information on whether SMEs have a specific plan, strategy, and important activities of businesses. Based on figure 3, there 22 SMEs (55 percent of all 40 SMEs) have a specific plan, strategy, and important activities of businesses while there are 18 SMEs (45 percent of all 40 SMEs) have no specific plan, strategy, and important activities of businesses. Based on table 4, the majority of SMEs that have a specific plan, strategy, and important activities of businesses are 20 SMEs with food products. In conclusion, most SMEs have key activities. Based on additional explanation by SME owners, key business activities include the adjustment of business activities based on the current trend, digital promotion, employees' capacity and quality improvement, and customer service.

The element of key partnership gives information on whether SMEs have suppliers and partner networks that support SMEs' business. Based on figure 3, there 21 SMEs (53 percent of all 40 SMEs) have suppliers and partner networks that support SMEs' business while there are 19 SMEs (47 percent of all 40 SMEs) have no suppliers and partner networks that support SMEs' business. Based on table 4, the majority of SMEs with suppliers and partner networks that support SMEs' business is 17 SMEs with food products. In conclusion, most SMEs have a key partnership. Based on additional explanation by SME owners, SMEs have fixed suppliers and build a relationship with the government, community, hostelry, expo, and marketplace.

The element of cost structure assesses whether SMEs have the structure of all paid costs to run the business. Based on figure 3, there 26 SMEs (65 percent of all 40 SMEs) have the structure of all paid costs to run the business while there are 14 SMEs (35 percent of all 40 SMEs) have no structure of all paid costs to run the business. Based on table 4, the majority of SMEs that have the structure of all paid costs to run the business are 23 SMEs with food products. In conclusion, most SMEs have a cost structure. Based on additional explanations by SME owners, SMEs calculate the potential costs in a month.

The element of cash flow management assesses whether SMEs control, analyze, and manage cash flow. Based on figure 3, there 14 SMEs (35 percent of all 40 SMEs) control, analyze, and manage cash flow while there are 26 SMEs (65 percent of all 40 SMEs) do not control, analyze, and manage cash flow. Based on table 4, the majority of SMEs that do not control, analyze, and manage cash flow are 20 SMEs with food products. In conclusion, most SMEs do not manage their cash flow. However, based on additional explanation by SME owners, SMEs that have cash flow management do the accounting process of expenses and revenues. On the other hand, most SMEs with no cash flow management has no qualified employees to do accounting.

The element of pivoting assesses whether SMEs do strategy changes to avoid losses. Based on figure 3, there 27 SMEs (68 percent of all 40 SMEs) do strategy change to avoid loss while there are 13 SMEs (32 percent of all 40 SMEs) do not do strategy change to avoid loss. Based on table 4, the majority of SMEs that do strategy changes to avoid losses are 24 SMEs with food products. In conclusion, most SMEs do strategy pivoting to avoid losses.

The element of ecological concern assesses whether SMEs do environmentally friendly business. Based on figure 3, there 34 SMEs (85 percent of all 40 SMEs) do environmentally friendly business while there are 6 SMEs (15 percent of all 40 SMEs) that do not do environmentally friendly business. Based on table 4, the majority of SMEs that do environmentally friendly business are 29 SMEs with food products. In conclusion, most SMEs do environmentally friendly business.

Based on 12 sustainable business model elements of customer segment, value proposition, channels, customer relationship, revenue stream, key resources, key activities, key partnership, cost structure, cash flow management, pivoting, and ecological concern, most SMEs (above 50 percent of SMEs) already perform the value proposition, channels, customer relationship, key resources, key activities, key partnership, cost structure, pivoting, and ecological concern. On the other, most SMEs (above 50 percent of SMEs) do not yet perform the customer segment, revenue streams, and cash flow management.

5. Conclusion

Based on the result, this study finds that most SMEs in Yogyakarta and Magelang, implement the elements of a key partner, key activity, key resources, value proposition, customer relationship, channels, cost structure, pivoting plan, and ecological concern. On the other hand, most SMEs do not implement elements of customer segment, revenue stream, and cash flow management.

This study implies SMEs develop and revise their business so the business can be adjusted to a sustainable business model since a sustainable business model can help SMEs provide business sustainability in the long term. A sustainability business model is important for SMEs since most SMEs experience the crisis from the economic crash of Covid-19. Based on the result, most SMEs do not implement elements of customer segment, revenue stream, and cash flow management. Socialization and special training is needed from various parties related to the implementation of sustainable business models for SMEs. In this case, first, SMEs can develop target of market segment such as based on customer characteristics of age, gender, or occupation. Second, SMEs also can develop implementation of revenue stream such as establishing various of product types and make a revenue identification of revenues from each type of product. Third, SMEs can build a simple system of analysis and monitoring of cash flow such as book keeping of purchasing or revenues based on suppliers and customers. This study only examines SMEs in Yogyakarta and Magelang. Future studies can explore other SMEs from other cities with different economic and cultural conditions.

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