

Sustainable Development of Business with Canvas Business Model Approach: Empirical Study on MSMEs Batik Blora, Indonesia



Kesi Widjajanti*, Febrina Nafasati Prihantini, Ratna Wijayanti

Department of Management, Faculty of Economics, Universitas Semarang, Semarang City 50196, Indonesia

Corresponding Author Email: kesi@usm.ac.id

<https://doi.org/10.18280/ijstdp.170334>

ABSTRACT

Received: 17 January 2022

Accepted: 18 April 2022

Keywords:

MSMEs, Blora batik, business model canvas

MSME Batik Blora in running their own business, they are equally weak in terms of human resources (HR), innovation, capital, technology and marketing. Therefore, government policies related to strengthening MSME businesses need to be supported by implementing an effective business planning model. One of the business planning models that can be applied to the Blora batik business is the Business Model Canvas (BMC). The purpose of this study is to identify the application of the canvas business model as an effort to develop batik SMEs in a sustainable manner. This research is a qualitative research based on empirical findings in the field. This research was conducted on Batik UMKM which is located in Blora Regency as one of the unique batik producing centers in Indonesia. The data used in this study is primary data collected by observation, in-depth interviews and also focus group discussions. The sources of data in this study are related stakeholders such as SMEs in Blora Batik, Blora Regency Government, Academic Experts on Batik and MSME Policy, Banking, and also community institutions. The data analysis used in this research is triangulation. The results show that the canvas business model for Batik UMKM in Blora focuses on the Customer segment, Value proposition, Key resources and Key partners. The implication of this research is that UMKM Batik is one of the businesses that needs to be developed because it is a local wisdom that has uniqueness and characteristics that can be added value for the market. The development of MSMEs Batik can be one of the pioneers for providing community employment so that it helps improve the economy.

1. INTRODUCTION

Micro, Small and Medium Enterprises (MSMEs) are one of the businesses that make a big contribution to the Indonesian economy. In addition to absorbing a very large number of workers, MSMEs also contribute to the formation of Gross Domestic Product (GDP). The development of MSMEs has become one of the focuses of the government's strategic policy in order to increase its contribution in the economic and social fields. Various policies have been carried out to develop MSMEs, but they are still not optimal because there are still many MSME actors who live in poverty. The growth of MSMEs can increase employment so that it can increase income and reduce poverty.

One of the UMKM that has the potential to be developed is the Batik UMKM in Blora Regency. Batik in the area has the advantage of a unique batik motif because it is lifted from local wisdom such as the teak leaf motif because in the Blora area there are many finished leaves, the barongan motif which is a typical art of Blora and also the motif of an oil refinery because in Blora there are many petroleum wells. This uniqueness is an advantage for Blora batik. The development of the batik industry has a strategic position in encouraging the performance of MSMEs and optimizing the potential of the creative industry based on local culture. Most business ventures in Indonesia depart from home industries or micro, small and medium enterprises (MSMEs), with constraints in

marketing and capital. This may be related to the problem of low capabilities that lead to innovative behavior. This capability limitation is related to the knowledge of market channel access and financial access obtained [1-3]. The capabilities that lead to innovation in MSMEs are not optimal and cannot be sustainable [4-6]. Therefore, to overcome these problems, it is necessary to increase its competitive capabilities, towards how to maintain business continuity. The limited management, technical and knowledge of business actors in the field of design, slows down their ability to compete in developing their business [7-9]. The sustainability of its business ventures will be realized through the implementation of a business strategy model that is oriented towards cost advantage and differentiation [10-12]. The sustainable development of Batik UMKM business can have a negative impact on economic, social and environmental conditions. In the economic aspect, the development of MSMEs can improve the performance of MSMEs and increase the income of business actors. In the social aspect, the development of MSMEs can provide income distribution and reduce poverty. Meanwhile, in the environmental aspect, sustainable MSME development can reduce hazardous waste and can preserve the environment.

In general, the ability of human resources in the field of product, market and technology innovation in MSMEs has not been fully available according to market needs [13, 14]. So that MSMEs can increase their competitive advantage, it is

necessary to improve the quality of their human resources by awakening their creativity and entrepreneurial spirit to explore their potential to be more efficient [15, 16]. The level of MSME's ability to survive in the new normal era is largely determined by innovation that leads to efficiency, so that they are able to sell products at competitive prices. The new normal era during the COVID-19 pandemic caused many of the newest batik products to appear and also the emergence of a rapidly growing digital marketplace due to the limitations of community activities so that many consumers ran in the digital market. Competition in the digital market is certainly very tight and products such as batik if they are not able to innovate will lose out to competitors' products.

New competition in globalization is unavoidable, and in order to survive and compete, MSMEs are required not only to understand and understand what is the tendency of consumer desires, but more to have the courage to make changes with quick action to respond to changes in people's tastes [17-19]. Determining the right business strategy can be used to face the competition. An important key to winning the competition lies in the ability to implement strategies that can create a competitive advantage [20, 21]. Companies that are able to provide more value to customers than what their competitors provide will create a competitive advantage. In terms of company activities such as in service, designing, producing, marketing, delivering, and supporting its products is a source of competitive advantage [22-26].

Several previous studies have explained that the business planning model for MSMEs can encourage strategic policies that can increase the empowerment of MSMEs and to accelerate economic growth [27]. Besides that, the position of MSMEs is also determined by the partnership aspect to be able to establish partnerships in order to strengthen capital and marketing. The fact is still visible, MSMEs in running their own businesses are equally weak in terms of human resources (HR), innovation, capital, technology and marketing [28]. Therefore, government policies related to strengthening MSME businesses need to be supported by implementing an effective business planning model. One of the business planning models that can be applied to the Blora batik business is the Business Model Canvas (BMC). The application of BMC can help Batik MSME entrepreneurs to redesign their business so that they can develop and have a sustainable competitive advantage. However, implementing BMC is not easy as it requires some business knowledge to use and apply BMC to a specific market, such as the lower segment of the informal pyramid. MSMEs are the most vulnerable segment and their presence in large numbers makes them the most dispersed segment in the socioeconomic system [29]. Several previous studies have recommended the application of BMC with general concepts for MSMEs, so this study tries to provide a new concept in the application of BMC, namely the application of BMC based on local wisdom and sustainability. The urgency of implementing local wisdom-based and sustainable BMC is to preserve local wisdom and culture while at the same time providing innovation to batik products so that they have distinctive characteristics. Meanwhile, the concept of sustainability needs to be promoted so that the hazardous waste produced by batik SMEs can be minimized and can preserve the environment. This study aims to analyze the strategy of developing a sustainable business with a business model canvas approach: an empirical study on MSMEs in Batik Blora, Indonesia. This study aims to analyze the strategy of developing a sustainable business with a business model

canvas approach: an empirical study of SMEs in Batik Blora, Indonesia.

2. LITERATURE REVIEW

2.1 Entrepreneurship

The competitive level of a company is influenced by orientation towards entrepreneurial activities [30]. For example, a positive relationship was found between the intensity of entrepreneurship and specific strategic management practices, such as scanning intensity, planning flexibility, locus of planning, and strategic control. In particular, the benefits of being a pioneer can be seen as one element of the entrepreneurial orientation of the enterprise level [31]. Entrepreneurial organization is indicated by the level of companies that are motivated to be entrepreneurial, marked by "full commitment" to entrepreneurial activities [32]. Elements of an entrepreneurial orientation include a tendency to act autonomously to innovate and take risks, and a tendency to be more aggressive toward competitors and relatively proactive about market opportunities [33]. Several previous studies have found that the entrepreneurial orientation dimension does not always have the same effect, but is very different from one another [34-36].

Many previous studies related to entrepreneurship in measuring company performance using different sizes or indicators [34-37]. The success of a company in the context of entrepreneurial ventures depends on the commitment of top management in handling the company through the entrepreneurial process. The entrepreneurial process is usually associated with the steps and stages in the movement from identifying an opportunity to a business concept, and entrepreneurship can be applied as a measure of the entrepreneurial or non-entrepreneurial characteristics of a company.

Other research explains that entrepreneurship will be positively related to the growth and profitability of the company to improve performance through growth and profitability [35]. Another study found that the entrepreneurial orientation of companies tends to have a long-term and short-term sustainability effect on growth and performance [38, 39]. Companies that innovate will get abnormal profits and a larger market share (Schumpeterian-rent) compared to competitors.

This business strategy model assumes a number of changes in orientation from fundamental bases such as structure, participation, control, communication, incentives, towards a proactive orientation of creativity, professionalism and entrepreneurship related to leadership. The rational perspective of MSMEs improves their competitive position by dealing with products and markets. It can be said that product and market diversity can be a driving force for business growth. Two critical assumptions of an effective business strategy model for MSME growth in the New Normal era are if it has value, rarity, imitability and organization (VRIO). As stated by previous researchers that the essence of the source of competitive advantage is not only valuable but also has the characteristics of being rarely and costly to imitate [36]. A company that is valuable if it has a potential cost advantage. The competitive strategy model is influenced by entrepreneurial orientation. It can be said that proactive and risk-taking actions for the creation of new businesses are related to company growth. MSMEs' efforts to expand in the market and the diversity of their products to take advantage of

new competition in the new normal allow them to generate profits in new markets. Therefore, to be able to grow, MSMEs must dare to enter new markets, where new competition is a strategic effect in the new normal era.

Small and Medium Industrial Commodities (IKM) that have the potential and diversity of competitiveness that focus on folk crafts are traditional batik. The batik industry and handicraft is one of the creative industry sectors that has the potential to contribute and provide solutions to the nation's environmental, social and economic problems.

2.2 MSME innovation and characteristics

Characteristics of Micro, Small and Medium Enterprises (MSMEs), most of them have a low level of innovation and in general it can be said that there is almost no innovation. This may be related to the limited capital related to the behavior of courage in taking risks. In general, the behavior of small businesses is less daring to take risks in order to develop innovation [37]. This will be different from the behavior of large businesses, which tend to be more daring in taking risks to create innovation. It is this internal condition that causes them not to have characteristics that are important for their competitiveness, such as (rare, valuable, difficult to imitate, and cannot be substituted). Therefore, to increase competitive capability, it is necessary to change the mindset towards increasing innovation through behavioral changes that are less risk-averse to behavior that is more daring to take risks in increasing their creative power.

At this time, only a few centers of batik in Blora Regency have been able to market their products. Innovation related to customers will affect the competitiveness of SMEs [38]. Blora batik is still not able to compete with inter-regional batik, one of which is due to the inefficient batik process innovation so that the price of batik is less competitive. Indeed, there are craftsmen who have produced unique products, but the production process is not yet efficient, so the price cannot compete with well-known batik-producing areas such as Lasem, Pekalongan and Solo. Besides that, the limited knowledge of marketing management makes them unable to sell their products optimally. The factors that influence the development of SMEs in the handicraft industry are the quality of their human resources (HR) [39]. This supports the opinion of Simatupang (2008) that there are still several problems in MSMEs in the craft industry, including low creativity in terms of design, color and quality. Ideally, small and medium enterprises need to intervene in increasing their competitive ability. To respond to the openness of the global market, especially the MEA, it is necessary to make efforts to improve the performance of MSMEs that are oriented towards customer-based innovation.

The entrepreneurial level is determined by innovation accompanied by technological development. Good business development of an industry can be seen from how the industry can seek to develop innovation in order to maintain its sustainability [40]. In the business development process, product, process and market innovation capabilities play an important role. Relationship Market orientation, learning and entrepreneurship have an influence on the company's innovation. In order to realize an increase in competitiveness, the batik industry based on the cultural potential and natural resources it has is directed to produce batik according to market demand. To maximize the involvement of various stakeholders, it is necessary to develop the quality of human

resources to support the needs of the Jepara batik industry which is being promoted. One way that can be done is by creating innovations based on health security. The understanding and knowledge of craftsmen about local cultural arts helps produce a variety of unique quality Batik products so that they are competitive. Strengthening this culture-based innovation is the main vehicle for increasing competitiveness in the international market. It is assumed that the greater the level of entrepreneurship, the higher the competitive advantage and the more the business grows. The rationale for MSMEs is to develop entrepreneurship to increase their growth. Therefore, the best way to encourage economic growth through people's economic attention is a strategic step that needs to be followed up with community empowerment.

2.3 Business model canvas

The company's business model is a chain of interconnected and interdependent systems on how to control the company to "do business", both with consumers, enter into partnerships and relate to suppliers [41]. In conclusion, the business model is a set of certain system of activities carried out by the company to meet market needs, as well as the special things that the company or company partners currently have in conducting business activities, and how these activities are connected to each other. Innovative business models can create new markets or help companies create and exploit new business opportunities in markets that did not previously exist. Business model innovation occurs by: a) adding new activities, because it is referred to as a "feature", b) connecting activities in new ways; because it refers to "new process innovation", c) changing one or more parties performing the activity, "structure."; because it refers to the "empowerment" of company resources. MSMEs can take advantage of and look for new business model opportunities in their efforts to renew their business life cycle or their products which may result in decreased revenues and pressure on the company's current profit margins. Raphael Amit and Christoph Zott Bisnis suggest that SME entrepreneurs need to examine six key questions about business model innovation: 1) can the company's current basic needs be met?, 2) are new activities needed to meet these needs?, 3) how are activities the new system is connected to the existing system and in what way?, 4) who should carry out each of these activities that are part of the new business model?, should all the people in the company? partner? customer? and can the new governance arrangements be implemented in the current corporate structure?, 5) how can corporate value be created through this new business model for each participant?, 6) is the revenue model compatible with the new business model?.

The Business Model Canvas ("BMC") created by Osterwalder & Yves Pigneur is a 'how companies can create value' tool. Through BMC, entrepreneurs can see how they can run their business; which will involve many units, both in the production process, marketing and other departments; and how companies maintain their relationships with their customers, so that they too can maintain the continuity of their company. The advantages of BMC are as a tool for strategic planning and development; a tool for expressing ideas; tools to determine customer segmentation; as a dashboard or indicator tool; a tool to find out how competitors are doing (such as the level of competition). Besides all that, BMC can also be used as a tool for business model portfolio analysis;

innovation planning; and also as a tool to harmonize the mindset of individuals within the organization.

3. METHODS

The design of this research is qualitative research to help analyze the phenomena and problems that exist in the field. This study uses an inductive qualitative approach to analyze the canvas business model for Batik SMEs in Blera Regency, Indonesia. This approach was chosen because it has the advantage that it lies in the direct interaction carried out by the researcher to the research subject directly so that it can help researchers to facilitate data collection. In addition, this study also uses a phenomenon exploration approach because it is considered in accordance with the problems and objectives of the research. The exploratory approach is considered effective for analyzing the development of BMC in UMKM Batik Blera.

The data used in this study is primary data collected by several techniques. The first data collection technique is observation. Observations were made to the SMEs of Batik Blera as well as other stakeholders such as non-governmental organizations, local governments, and others. Researchers made direct observations by visiting batik businesses in Blera and observing several aspects ranging from production, business management to marketing. In addition to observation, data collection techniques were also carried out with in-depth interviews. This interview was conducted in-depth and structured to several respondents consisting of the perpetrators of UMKM Batik Blera, members of non-governmental organizations and the local government. The selection of respondents in this study used a non-probability quota random sampling technique to select Batik SMEs.

After the data was collected, the results of the data collection were transcribed and further analysis was carried out. Data analysis in this study used triangulation. This analysis is used to gain understanding, thoroughness and also depth in the discussion of the canvas business model at MSME Batik Blera. Triangulation was chosen because it can

minimize the effect of bias and provide valid and reliable findings. The variables that are triangulated include the variables contained in the business model canvas which consist of 1) Customer segment, 2) Value proposition, 3) Channels, 4) Customer relationships, 5) Revenue streams, 6) Key resources, 7) Key activities, 8) Key partners, 9) Cost structure.

4. RESULTS AND DISCUSSION

Business Plan Model Canvas: Diversification of Batik Blera is a business model that describes nine business elements consisting of 1) Customer segment, 2) Value proposition, 3) Channels, 4) Customer relationships, 5) Revenue streams, 6) Key resources, 7) Key activities, 8) Key partners, 9) Cost structure. The results of the analysis of the nine elements of the canvas business model on UMKM Batik Blera are presented in the Figure 1 below.

The following is an explanation of each segment for the Batik Blera diversification model:

1) Customer segments

Determination of customer segmentation is the most important thing in the business model. Departing from this, the Business Model Canvas proposal to diversify Blera batik is to maintain customer segments that have been previously reached and increase customer segments to the international market.

Diversification of Blera batik products aims to reduce the saturation of batik products which are only in the form of cloth by making batik products fashionable. The customer segment for the diversification of Blera batik is the upper middle class with local and international community reach. Diversification of Blera batik products has its own design and is widely targeted by consumers with casual, all-size and all-season products. With this diversified product, the scope of consumers is expected to be expanded by penetrating the fashion of the international community.

Business Model Canvas				
Designed for:		Designed by:		Date:
				Version:
Key Partners <ul style="list-style-type: none"> • Government - Local Government of Blera Regency - Department of Trade, Cooperatives and MSMEs of Blera Regency - Blera District Education Office - Office of Investment and One-Stop Integrated Services Kab. Blera • Batik Entrepreneurs Association • Academics - University of Semarang - Telkom University - SMKN 2 Blera Regency - UPGRIS and UNNES • Cooperatives (Supplier of Raw Materials and Labor) 	Key Activities <ul style="list-style-type: none"> - Production - Marketing - Sale - Diversification of Blera Batik Products and Fashion (Blouses, Outer, Batik Bags, Udegeng, Dress, Batik Pants) - Coaching and Training - Copyright Ownership Key Resources <ul style="list-style-type: none"> - Blera's Cultural Philosophy - Batik Industry - Skilled Workforce - Fashion Designer - Financial Capital 	Value Propositions <ul style="list-style-type: none"> - Characteristics of Batik Motifs - The motif of Blera's cultural philosophy "Story of Daily Life in Blera" - Combination of Casual and Unique Batik Products (Mix and match materials and motif composition) - Contemporary Color Tone Concept - Fashion Batik (not only in the form of cloth) - Quality Raw Materials and Durable Colors 	Customer Relationships <ul style="list-style-type: none"> - Personal - Products can be ordered according to customer wishes - Community Channels <ul style="list-style-type: none"> - Direct Selling - E-commerce (https://madeinblera.com/) - Joint Product Exhibition - Social Media (facebook, IG, WA) - Outlets local government 	Customer Segments <ul style="list-style-type: none"> - Fashion Batik for the upper middle class - Local Communities and International Communities
Cost Structure <ul style="list-style-type: none"> - Raw Material Cost - Direct labor costs - OHP fee - Administrative costs - Marketing Fee Tax 		Revenue Streams <ul style="list-style-type: none"> - Sales of Batik Fabrics - Product Diversification Sales and Batik Fashion 		

Figure 1. Business model canvas UMKM Batik Blera

2) Value proposition

Blora Batik products have a characteristic that lies in the motifs that tell the daily life or culture of the Blora people. The value offered to customers is related to the diversification of Blora Batik products, namely the Blora cultural philosophy motif. To avoid repeated motifs, there is no novelty and no aesthetic value that causes batik products to become formal and rigid, this Blora batik diversification develops the idea of motifs that will be applied to the product. Blora's batik diversification tries to offer a new perspective on the concept of batik motifs, which are considered as 'story telling' rather than symbolic. For this reason, the motifs will be mixed and matched with illustrations of the daily life of Blora residents. The daily narrative revolves around the typical culinary, special events, livestock, people's houses, unique geographical objects, as a description of the local landscape of the city of Blora.

Blora batik motifs have great potential to be made newer with a 'story telling' approach. Products and applied images can be modified by using fresher color tones, and illustration styles with different strokes. Likewise, the composition of the combination of materials and ornaments, accompanied by the placement of motifs, can update product trends. The mix and match of materials and composition of motifs is a design strategy for developing batik products, apart from only developing the concept of motifs. The products are diversified into a blend of batik, casual designs and the uniqueness of local wisdom.

The concept of color tone is considered when designing a product, especially in terms of the application of motifs and mix and match motifs. Simple motifs, with appropriate color tones, can create new products, without having to leave a local footprint. The diversified batik products developed are Blouses, Outer, Batik Bags, Udeng, Dress, Batik Pants. These products become Batik fashion that is not monotonous in the form of cloth. In addition, the value proportion that is maintained for Blora batik products is high quality batik products with durable colors.

3) Channels

Channels used as a marketing method for diversifying Batik Blora products include direct sales to consumers which also means mouth-to-mouth promotions, online sales using e-commerce which has been facilitated by the local government and academics, namely <https://madeinblora.com/>, the use of other social media such as Facebook, Instagram, WhatsApp with ongoing promotions, sales through fixed outlets which are sales locations, as well as sales by order from the local government.

4) Customer relationships

Customer relationships are the means used to communicate with customer segments. Customer relationship is carried out by Blora batik by offering directly (personally) to consumers or mouth-to-mouth promotions, participating in batik and fashion design exhibitions, and using social media as customer service. This Blora batik diversification product can be ordered according to customer wishes, this is also a way to serve customers according to customer desires and needs. Communities of batik craftsmen were formed to find out all forms of information about the Batik business, including as a place to communicate as an effort to improve service to customers.

5) Key resources

Resources are central to the business model. Therefore, the resources available to develop the diversification of Blora

batik are in the form of the philosophy of Blora culture itself, as a source of inspiration for Batik motifs that maintain the characteristics of local wisdom and the uniqueness of Blora batik. The batik industry is a must-have resource so that batik entrepreneurs follow the development of the batik business, market tastes, marketing, operations and information related to funding. Skilled workforce is very much needed in the development of batik diversification, not only skilled in batik, but human resources are also required to be creative in developing batik motifs and designs according to market tastes and following the times. To overcome the scarcity of human resources and efforts to preserve batik, the Regional Government cooperates with academics to develop a curriculum of learning model diversification of Blora batik at SMKs in Blora Regency. The next generations will later serve as a source of skilled labor and a source of regeneration. The development of the Blora batik diversification curriculum was developed by the University of Semarang, in collaboration with the Faculty of Design from Telkom University and the Faculty of Education from UPGRIS and Semarang State University.

Fashion designers are needed as a resource in Blora batik diversification to update product trends, develop ideas, ideas and creativity in Blora batik fashion. Financial capital is needed to ensure that every activity in the business or development of batik diversification can run.

6) Key activities

Some of the key activities at UMKM Batik Blora can be explained in Figure 2.



Figure 2. Key activities

7) Key partners

Key partnership is a partnership or collaboration between two or more parties so that a model of diversification and sustainability of Blora batik can be created. The key partnership from the first diversification of Blora batik, namely the Government consists of the Regional Government of Blora Regency itself, the Department of Trade, Cooperatives and SMEs of Blora Regency, the Education Office of Blora Regency, Bappeda, the Office of Investment and One Stop Services Blora Regency. The role of the local government is to facilitate activities aimed at preserving, marketing and increasing the love and concern for Blora batik. Activities carried out include training, coaching, facility assistance, exhibitions, competitions, and other policies.

Second, the association of batik entrepreneurs acts as a center for exchanging information between batik entrepreneurs, fostering fellow craftsmen, and promoting batik.

Third, academics as key partners play a role in finding the concept of developing Blera batik diversification. Semarang University plays a role in developing e-commerce, and a diversification strategy for the development and sustainability of Blera batik. In addition, the University of Semarang created a learning model for Blera batik diversification and implemented this model in the curriculum of SMKN 2 Blera Regency. Furthermore, the University of Semarang has also made an academic paper on the development of Batik Blera as the basis for policy formulation for the local government. Meanwhile, Telkom University, especially the design faculty, has developed a diversified model of batik itself to be implemented for batik craftsmen in Blera. These academics have been consistent and productive in research and community service, especially regarding the development of Blera batik. Fourth, Cooperatives as key partners play a role in accommodating the needs of batik craftsmen, both for raw materials and labor, and are able to promote batik, as well as improve the welfare of its members.

8) Revenue streams

The way to generate profits is through Asset Sale from selling physical products, both batik cloth products and their diversification (Blus, Outer, Batik Bag, Udeng, Dress, Batik Pants). From the first quarter to the fourth quarter there was an increase in revenue, with an average growth of 14% per month exceeding the average inflation rate of 8%.

9) Cost structure

The details of the costs incurred in producing batik cloth and its diversification include the cost of production (raw material costs, direct labor costs, OHP costs), marketing costs, administrative costs, taxes.

4.1 Investment calculation projection

4.1.1 Projected net cash flow

The profit projection for the first year is the sum of net profit from the 1st quarter to the 4th quarter, then profit is projected to grow 5% for 3 years. Depreciation is assumed to be constant with the amount of Rp. 2,000,000 for 3 years as can be seen in Table 1.

Table 1. Projected net cash flow

Description	Years		
	I	II	III
Profit Projection	76,030,139	79,831,646	83,823,228
depreciation	2,000,000	2,000,000	2,000,000
Interest (1-tax%)	17,212,505		
Proceed	78,030,139	81,831,646	85,823,228

4.1.2 Payback period calculation

Assumptions The initial investment for the Blera batik business and its diversification is Rp. 200,000,000 (representing loan capital from people's business loans, with a period of one year, interest rate of 3%). Furthermore, the calculation of the Payback Period is as follows on Table 2:

Table 2. Payback period calculation

Years	Proceed	
1	78,030,139.00	121,969,861.00
2	81,831,645.95	40,138,215.05
3	85,823,228.25	5.61
Payback Period		2 Years 6 Months

Based on the payback period table, the investment will return within 2 years and 6 months, this is considered feasible because it is less than the investment age of 3 years.

4.1.3 Net present value, profitability index, and internal rate of return

Description:

Discount Factor adjusted for KUR loan interest rate of 3%

The IRR is between 3% and 11%, so:

$$IRR = 3\% - \left(31,432,003 \frac{11\% - 3\%}{-532,973 - 31,432,003} \right)$$

$$IRR = 10.9\%$$

Based on the calculations presented in Table 3, it can be seen that the NPV shows a positive value, the Profitability index value is greater than one, and the IRR value (13.5%) is greater than the discount factor or loan interest rate (3%). This means that investment in product diversification and Blera batik fashion is feasible.

Table 3. Calculation of net present value, profitability index, and internal rate of return

Years	Proceed	Discount Factor 3%	PV Proceed	Discount Factor 11%	PV Proceed
1	78,030,139.00	0.9709	75,757,417	0.9009	70,297,423
2	81,831,645.95	0.9426	77,134,175	0.8116	66,416,400
3	85,823,228.25	0.9151	78,540,412	0.7312	62,753,205
	PV Proceed		231,432,003	PV Proceed	199,467,027
	IO		200,000,000	IO	200,000,000
	NPV		31,432,003	NPV	- 532,973
	PI		1.16		

5. CONCLUSION

Based on the results and discussion, it can be concluded that efforts to develop a sustainable Batik UMKM business with the Business Model Canvas approach require several strategies. The first strategy that needs to be optimized is the strategy on the customer segment aspect where in this aspect, Batik UMKM must maintain the customer segments that have been

previously reached and increase the customer segment towards the international market and also require batik product diversification which aims to reduce the saturation of batik products. The second strategy is the strategy on the value proposition aspect. In this aspect, it is necessary to have Value offered to customers related to the diversification of Blera Batik products, namely the cultural philosophy motif in Blera Regency. The second strategy is a strategy on the key

resources aspect where in this aspect it is necessary to optimize the available resources to develop Blora batik diversification in the form of Blora's cultural philosophy itself, as a source of inspiration for Batik motifs that maintain the characteristics of local wisdom and the uniqueness of Blora batik. While the fourth strategy is a strategy on the key partners aspect where key partners that need to be optimized are with stakeholders which include the Government consisting of the Regional Government of Blora Regency itself, the Department of Trade, Cooperatives and SMEs of Blora Regency, the Education Office of Blora Regency, Bappeda, the Investment Office. and One Stop Service for Blora Regency. The contribution of this research is that it can be input for the government and other stakeholders to be involved in efforts to promote local businesses that can raise local potential and wisdom so that they can become a leading sector for the community's economy. In addition, batik entrepreneurs can also exchange information and experiences to jointly develop Blora batik SMEs.

The limitation of this research is the focus of research on UMKM Batik Blora. In addition, the limitations of this study are also limited to the scope of the analysis of the business model canvas which only focuses on product diversification based on local wisdom. For further research, it can expand the focus of research on batik SMEs in several areas that are batik centers in Indonesia which have their own uniqueness and characteristics. In addition, it is recommended for further research to analyze the business model canvas based on current market conditions by considering digital developments in the industrial era 4.0.

ACKNOWLEDGMENT

The author would like to thank for the support and funding from the University of Semarang which can support the completion of this research.

REFERENCES

- [1] Li, R., Song, H., Su, S. (2019). Study on business model of virtual power plant based on Osterwalder business model canvas. In 2019 IEEE 3rd International Electrical and Energy Conference (CIEEC), pp. 1842-1846. <https://doi.org/10.1109/CIEEC47146.2019.CIEEC-2019632>
- [2] Marfuah, U., Ambaria, N.R. (2019). Business development strategy with business model canvas approach at Pakdhe Mie chicken shop-Cimanggis, Depok. *International Journal of Scientific and Technology Research*, 8(2): 44-49.
- [3] Moraes, A.M., Decarli, M.C., Westin, C.B., Soares, M.C., Vit, F.F., Jimenez, F.D., Lucimara, G. (2019). Use of business model canvas in bioprocesses engineering education at undergraduation level: Encouraging entrepreneurship and increasing motivation. In 2019 AIChE Annual Meeting. AIChE.
- [4] 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>
- [5] Carter, M., Carter, C. (2020). The creative business model canvas. *Social Enterprise Journal*, 16(2): 141-158. <https://doi.org/10.1108/SEJ-03-2019-0018>
- [6] Alias, C., Goudz, A., Jawale, M., Noche, B. (2015). Generating a business model canvas for future-internet-based logistics control towers. In 2015 4th International Conference on Advanced Logistics and Transport (ICALT), pp. 257-262. <https://doi.org/10.1109/ICAdLT.2015.7136592>
- [7] Arianto, B.G. (2017). Implementation of building process integration of business model. <https://ieeexplore.ieee.org/document/8267919>.
- [8] Bekhradi, A., Yannou, B., Cluzel, F. (2016). Importance of problem setting before developing a business model canvas. In DS 84: Proceedings of the DESIGN 2016 14th International Design Conference, pp. 907-916.
- [9] Bunyasiri, I.N., Chatanavin, A. (2021). A case study of inclusive business model using business model canvas for contract farming. *International Journal of Entrepreneurship*, 25(5): 1-8.
- [10] Caetano, A., Antunes, G., Pombinho, J., Bakhshandeh, M., Granjo, J., Borbinha, J., Da Silva, M.M. (2017). Representation and analysis of enterprise models with semantic techniques: An application to ArchiMate, e3value and business model canvas. *Knowledge and Information Systems*, 50(1): 315-346. <https://doi.org/10.1007/s10115-016-0933-0>
- [11] Ciemniowski, W., Geers, M., Matusiak, B.E., Piotrowski, K. (2016). User's requirements and privacy concerns as canvas of business models and active demand management within e-balance system. In 2016 13th International Conference on the European Energy Market (EEM), pp. 1-5. <https://doi.org/10.1109/EEM.2016.7521235>
- [12] Dudin, M.N., Lyasnikov, N.V.E., Leont'eva, L.S., Reshetov, K.J.E., Sidorenko, V.N. (2015). Business model canvas as a basis for the competitive advantage of enterprise structures in the industrial agriculture. *Biosciences Biotechnology Research Asia*, 12(1): 887-894.
- [13] Erlyana, Y., Hartono, H. (2017). Business model in marketplace industry using business model canvas approach: An e-commerce case study. In IOP Conference Series: Materials Science and Engineering, 277(1): 012066. <https://doi.org/10.1088/1757-899X/277/1/012066>
- [14] Arianto, B.G., Surendro, K. (2017). Implementation of building process integration of business model canvas and technology roadmap for strategic management: Case study: PT. XYZ. In 2017 International Conference on Information Technology Systems and Innovation (ICITSI), pp. 61-66. <https://doi.org/10.1109/ICITSI.2017.8267919>
- [15] Shah, J.L., Bhat, H.F., Khan, A.I. (2019). Towards IPv6 migration and challenges. *International Journal of Technology Diffusion (IJTD)*, 10(2): 83-96. <https://www.igi-global.com/article/towards-ipv6-migration-and-challenges/225061>.
- [16] Fritscher, B., Pigneur, Y. (2014). Business model design: An evaluation of paper-based and computer-aided canvases. In International Symposium on Business Modeling and Software Design, 236-244.
- [17] Gand, K. (2018). Towards conceptual enhancements of the business model canvas: The case of health information technology. In 2018 IEEE 20th Conference

- on Business Informatics (CBI), 2: 62-71. <https://doi.org/10.1109/CBI.2018.10047>
- [18] García-Muñia, F.E., Medina-Salgado, M.S., Ferrari, A.M., Cucchi, M. (2020). Sustainability transition in industry 4.0 and smart manufacturing with the triple-layered business model canvas. *Sustainability*, 12(6): 2364. <https://doi.org/10.3390/su12062364>
- [19] Giourka, P., Sanders, M.W., Angelakoglou, K., Pramangioulis, D., Nikolopoulos, N., Rakopoulos, D., Tzovaras, D. (2019). The smart city business model canvas—A smart city business modeling framework and practical tool. *Energies*, 12(24): 4798. <https://doi.org/10.3390/en12244798>
- [20] Beck Dallaghan, G.L., Lomis, K., Crow, S., Coplit, L. (2021). Bridging educational innovation and financial offices: Using the Business Model Canvas modified for medical educators to communicate need. *Journal of Communication in Healthcare*, 1-6. <https://doi.org/10.1080/17538068.2021.1993691>
- [21] Dobrowolski, Z., Sułkowski, Ł. (2021). Business model canvas and energy enterprises. *Energies*, 14(21): 7198. <https://doi.org/10.3390/en14217198>
- [22] Güemes-Castorena, D., Toro, M.A. (2015). Methodology for the integration of Business Model Canvas and technological road map. In 2015 Portland International Conference on Management of Engineering and Technology (PICMET), pp. 41-52. <https://doi.org/10.1109/PICMET.2015.7273080>
- [23] Hernández-Chea, R., Vimalnath, P., Bocken, N., Tietze, F., Eppinger, E. (2020). Integrating intellectual property and sustainable business models: The SBM-IP canvas. *Sustainability*, 12(21): 8871. <https://doi.org/10.3390/su12218871>
- [24] Hixson, C., Paretti, M.C. (2014). Texts as tools to support innovation: Using the business model canvas to teach engineering entrepreneurs about audiences. In 2014 IEEE International Professional Communication Conference (IPCC), pp. 1-7. <https://doi.org/10.1109/IPCC.2014.7020368>
- [25] Kristensen, K., Ucler, C. (2016). Collaboration model canvas: using the business model canvas to model productive collaborative behavior. In 2016 International Conference on Engineering, Technology and Innovation/IEEE International Technology Management Conference (ICE/ITMC), pp. 1-7. <https://doi.org/10.1109/ICE/ITMC39735.2016.9026160>
- [26] Kühn, R., Korzetz, M., Kegel, K., Aßmann, U. (2019). Creating business model canvases with a collaborative mobile application. In Proceedings of the 17th European Conference on Computer-Supported Cooperative Work-Demos and Posters. European Society for Socially Embedded Technologies (EUSSET). https://doi.org/10.18420/ecscw2019_d01
- [27] Rahman, M.P., Thaker, M.A.M.T., Duasa, J. (2020). Developing a Shari'ah-compliant equity-based crowdfunding framework for entrepreneurship development in Malaysia. *ISRA International Journal of Islamic Finance*. <https://doi.org/10.1108/IJIF-07-2018-0085>
- [28] Kesi, W., dan Aprih Santoso, P.W. (2015). *Manajemen Pemasaran Strategik Aplikasi pada Sektor UMKM Batik*, Universitas Semarang Press. Edisi 1. <https://sinta.kemdikbud.go.id/authors/detail?id=6042446&view=book>.
- [29] Widodo, W. (2010). Model pengembangan human capital dalam konteks modal sosial. *Benefit: Jurnal Manajemen dan Bisnis*, 13(2): 69-103. <https://doi.org/10.23917/benefit.v13i2.1307>
- [30] O'Neill, T.W. (2015). The business model canvas as a platform for business information literacy instruction. *Reference Services Review*, 43(3): 450-460. <https://doi.org/10.1108/RSR-02-2015-0013>
- [31] Prasetyawan, Y., Maulida, N., Lutvitasari, M.R. (2018). The integration between business model canvas and manufacturing system design. In *IOP Conference Series: Materials Science and Engineering*, 337(1): 012061. <https://doi.org/10.1088/1757-899X/337/1/012061>
- [32] Widjanti, K., Sugiyanto, E.K. (2020). The synergy between academic support, government regulation, business sector, and civil society to enhancing innovation ecosystem Indonesian smes. *Journal of Educational and Social Research*, 10(5): 108-108. <https://doi.org/10.36941/jesr-2020-0092>
- [33] Widjanti, K. (2015). Marketing collaboration and SME strategy implementation in Blora, Indonesia. *ASEAN Marketing Journal*, 28-39. <https://doi.org/10.21002/amj.v7i1.4482>
- [34] Kesi, W., Widodo. (2016). Improving organizational innovation by human capital, knowledge sharing and organizational learning base. *International Business Management*, 10(9): 1599-1609. <https://medwelljournals.com/abstract/?doi=ibm.2016.1599.1609>
- [35] Witjara, E. (2016). Enhancing digital business value through implementation of strategic threshold canvas: a model of value-pertaining strategy of transforming telco. *Academy of Strategic Management Journal*, 15: 103-113.
- [36] Keane, S.F., Cormican, K.T., Sheahan, J.N. (2018). Comparing how entrepreneurs and managers represent the elements of the business model canvas. *Journal of Business Venturing Insights*, 9: 65-74. <https://doi.org/10.1016/j.jbvi.2018.02.004>
- [37] Kline, W.A., Hixson, C.A., Mason, T.W., Brackin, P., Bunch, R.M., Dee, K.C., Livesay, G.A. (2013). The innovation canvas-A tool to develop integrated product designs and business models. In 2013 ASEE Annual Conference & Exposition, 23-1218.
- [38] Ramlan, N., Hasibuan, Z.A. (2018). Information system strategic planning for local government based on business model canvas: a case study at Lebak Regency. In Proceedings of the 2018 2nd High Performance Computing and Cluster Technologies Conference, pp. 85-89. <https://doi.org/10.1145/3234664.3234678>
- [39] Salgado, C.E., Teixeira, J., Machado, R.J., Maciel, R.S. (2014). Generating a business model canvas through elicitation of business goals and rules from process-level use cases. In *International Conference on Business Informatics Research*, pp. 276-289. https://doi.org/10.1007/978-3-319-11370-8_20
- [40] Sort, J.C., Nielsen, C. (2018). Using the business model canvas to improve investment processes. *Journal of Research in Marketing and Entrepreneurship*, 20(1): 10-33. <https://doi.org/10.1108/JRME-11-2016-0048>
- [41] Zolnowski, A. (2014). Formative evaluation of business model representations - The service business model canvas. Paper presented at the ECIS 2014 Proceedings - 22nd European Conference on Information Systems. <http://aisel.aisnet.org/ecis2014>.