

BUSINESS DEVELOPMENT OF DIGITAL TENUN NUSANTARA (DITENUN) USING BUSINESS MODEL CANVAS AND SWOT ANALYSIS

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Abstract: DiTenun is a start-up engaged in traditional woven fabrics. The main product of DiTenun is the technology that can create woven motifs using artificial intelligence. In running the business, DiTenun is still experiencing stagnation in its development so that DiTenun continues to make efforts to develop its business. One of these efforts is to participate in the Kedaireka Matching Fund program offered by the Ministry of Education and Culture. This program requires DiTenun to cooperate with Batikta and Kaldera. To support this collaboration, it is necessary to know Dtenun business model's description to make the collaboration flow more focused. Therefore, this research aimed to discover the description of the DiTenun business model and its business collaboration. Canvas Business Model was used to determine the business strategy and was tested using SWOT planning method to evaluate the project's strengths, weaknesses, opportunities and threats or business speculation. From the BMC (Canvas Business Model) that has been designed for weaving, the company are recommended to further develop it in the elements of several elements. On the key activities element, it can focus on building a community of weavers when marketing expansion is better at selling its products. On the key partner element, it can expand its partners to the ones who can make DiTenun more developed, both in terms of business and production. On key resource elements, they can further develop their technology so that they can produce more perfect motifs and can be much easier for weavers to understand. Another essential thing that DiTenun needs to pay attention to is participating in critical programs to help DiTenun expand its business.

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Keywords: ditenun, start-up, business model canvas, swot, business development

Abstrak: DiTenun merupakan sebuah start-up yang bergerak dalam bidang kain tenun tradisional, dimana produk utama dari DiTenun adalah teknologi penciptaan motif tenun menggunakan artificial intelligence. Dalam menjalankan bisnis, DiTenun masih mengalami stagnasi dalam perkembangannya, sehingga DiTenun terus melakukan usaha-usaha untuk mengembangkan bisnisnya, salah satu usaha tersebut adalah mengikuti program Kedaireka Matching Fund yang diselenggarakan oleh Kemendikbud. Program ini mengharuskan DiTenun melakukan kerjasama dengan Batikta dan Kaldera. Dengan diadakannya kerjasama ini, maka perlu diketahui gambaran model bisnisnya untuk membuat alur bisnis kerjasamanya lebih terarah. Oleh karena inilah penelitian ini dibuat untuk mengetahui gambaran bisnis DiTenun dan gambaran kerjasama bisnis yang dilakukan oleh DiTenun. Gambaran bisnis yang digunakan adalah Model Bisnis Canvas, karena untuk mengetahui strategi bisnis yang dilakukan dan model bisnis ini diuji oleh metode perencanaan SWOT untuk mengevaluasi kekuatan (strengths), kelemahan (weaknesses), peluang (opportunities), dan ancaman (threats) dalam suatu proyek atau suatu spekulasi bisnis. Hasil dari analisis model bisnis sebelum dan sesudah kerjasama pada elemen key activities agar memiliki fokus untuk membangun komunitas penenun ketika ekspansi marketing sudah lebih baik dalam menjual produknya, pada elemen key partner agar lebih mengekskansi mitra-mitra yang dapat membuat DiTenun lebih berkembang, baik dalam hal bisnis maupun produksi, pada elemen key resource agar lebih mengembangkan teknologi yang dimiliki agar dapat menghasilkan motif yang lebih sempurna dan dapat jauh mudah dimengerti penenun.

Kata kunci: ditenun, start-up, bisnis model canvas, swot, pengembangan bisnis

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INTRODUCTION

Indonesia, as an archipelagic country, certainly has a diversity of tribes and cultures spread throughout Indonesia. With the gift of this diverse cultural wealth, Indonesia has many advantages, one of which is the diversity of traditional textiles such as woven fabrics. Woven fabric is one of the riches of Indonesian traditional cloth art culture. It has unique characteristics for each motif and is found in various regions throughout Indonesia such as Sumatra, Kalimantan, Java, Lombok, and Sumbawa, making it one of the region's characteristics.

Over time, there is a shift in the functionalities of woven fabrics. The woven cloth used to be worn in traditional events such as weddings, celebration of the birth of children, new house celebration, and death ceremony, making woven cloth not as existent as other fabrics on the market and slowly being abandoned. Woven fabrics, which previously only had meaning for the daily needs of the local community, has expanded to become a means of fulfilling the economy. Woven fabrics are now traded to people who want to use them for fashion needs (Hambali and Andarini, 2021). However, as time goes by, woven fabrics made by Indonesian weavers are increasingly scarce due to the lack of young weavers to continue this profession and the lack of literacy of previous weavers to document how to weave and the motifs of Indonesian weaving to their successors.

The existence of woven fabrics that continues to increase and the decline in the weaving profession is what has made various companies start to enter the world of traditional woven textiles, one of which is the start-up Digital Tenun Nusantara. Digital Tenun Nusantara Company is a start-up under the auspices of IT Del, which focuses on creating digital weaving motifs through machine learning technology and several other image processing technologies.

DiTenun is one of many start-ups engaged in traditional fabrics. The recent rapid development of start-ups has forced DiTenun to compete with other start-ups, especially those working in the same field. Therefore, an effort is needed to make DiTenun able to compete and one of the things that DiTenun has done is to take part in the Kedaireka Matching Fund program. This program helps DiTenun to expand its business more broadly in a way that it allows DiTenun to collaborate with local businesses, namely Batikta and Kaldera.

With the efforts that have been made, DiTenun has been able to expand its business, but there are things that DiTenun need to improve to make its business grow and focused. DiTenun needs to have a business model to be able to compete and survive amidst the onslaught of competition between start-ups. One of the business models that can be used is the Business Model Canvas, because according to researchers this business model can enable DiTenun to achieve a competitive advantage and succeed in gaining an edge compared to its competitors (Diva and Priyadi, 2020). Previously, DiTenun already had a canvas business model, but the researcher wanted to develop it even better by creating a canvas business model in collaboration with business partners. The results of this research can be used by DiTenun as an evaluation material for the business model they have and can be used as a basis for the company to grow and be focused in carrying out its business activities.

The objective of this paper is to analyze and develop the Digital Tenun Nusantara (Ditenun) business using the Business Model Canvas framework and SWOT analysis by proposing recommendations and business development strategies based on the analysis results (Kuswardhani et al. 2020; Maftahah et al. 2022; Mashuri and Nurjannah, 2020; Wulandari et al. 2022). This paper may provide insights on how Digital Tenun Nusantara can maximize its strengths and opportunities, as well as overcome weaknesses and deal with existing threats (Nainggolan, 2014).

METHODS

This research was conducted in several representative locations for the Digital Tenun Nusantara (Ditenun) business, namely The Kaldera Toba Nomadic Escape located in Sibisia Village, Ajibata District, Toba Regency and Batikta shop located in Balige District. The research was conducted over a five-month period, starting from August to December 2022.

This research uses primary data and secondary data. Primary data was obtained through in-depth interviews with Batikta business owners, managers, and other related parties. In addition, direct observation was also conducted to gain a better understanding of the business processes of The Kaldera Toba Nomadic Escape and Batikta. Secondary data used included internal company documentation, as well as data and information related to the weaving industry and digital technology.

The data collection technique was carried out through interviews with related parties at Batikta, a shop that became the object of this research. Researchers used data collection techniques through in-depth interviews with the owner of Batikta shop, managers, and staff who are directly involved in its business processes. The selection of Batikta shop as the object of research was based on its relevance to the research topic regarding the cloth business and its existence as an active business actor in promoting traditional fabrics.

The data collection technique was conducted through direct observation of the business process in Kaldera. Kaldera is a tourist area under the management of the Lake Toba Authority Implementing Agency (BPODT), the presence of Kaldera Toba emphasizes the status of Lake Toba as Indonesia's super priority destination. The selection of Kaldera as the research object was based on its relevance to the research topic of handicraft business and its existence as a reputable business actor in the industry.

This technique involves analyzing and using BMC to understand and analyze Digital Tenun Nusantara's business model. You can identify and analyze BMC elements, such as customer segmentation, value proposition, distribution channels, revenue sources, and key resources. This analysis can help in understanding the business structure, strengths, and weaknesses of the Digital Tenun Nusantara business model (Sukarno and Ahsan, 2021; Solihah et al. 2014; Prasetyo et al. 2018; Putra and Prabawani, 2021).

The SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis technique is used to analyze internal and external factors that affect the development of the Digital Tenun Nusantara business. You can identify internal strengths and weaknesses in the business, as well as opportunities and threats in the external business environment. SWOT analysis helps in formulating an effective business development strategy (Diva and Priyadi, 2020; Agushinta, 2020).

By implementing a new business development strategy based on BMC and SWOT analysis, Digital Tenun Nusantara can improve its competitiveness in the market. Collaboration with local stores can improve Digital Tenun Nusantara's brand image and attract a wider range of consumers.

The output of this research is expected to be the development of a new strategy model and recommendations that can be implemented by Digital Tenun Nusantara. The new strategy model will include changes or adjustments in BMC elements, as well as specific action recommendations to improve competitiveness, utilize digital technology, expand market reach, and build a strong brand image. These recommendations can help Digital Tenun Nusantara face the challenges and opportunities in the digital handicraft industry and optimize their business potential.

This framework describes the stages of analysis carried out in research related to the Digital Tenun Nusantara business (Figure 1). Starting with identifying the problems faced, followed by a decrease in the vision and mission of the organization. Next, mapping and identification of the Business Model Canvas (BMC) and analysis of the internal and external environment were carried out. The SWOT analysis stage is carried out to identify key factors (Sukarno and Ahsan, 2021). Finally, through the development of a new strategy model and recommendations, this research aims to provide solutions and suggestions for appropriate actions to develop the Digital Tenun Nusantara business (Abiyyu et al. 2020; Sharfina and Zakaria, 2019; Yuhdi and Suranto, 2021).

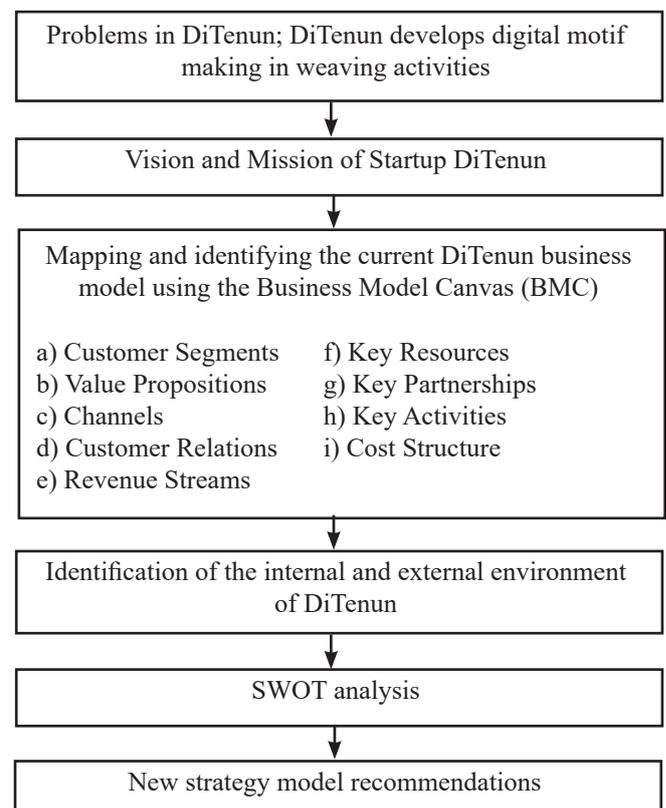


Figure 1. Research framework

RESULTS

The downstream process is the process of bringing research and innovation results closer to its users. Users in this case are the community (MS, 2018,). Digital Tenun Nusantara, which is a Start-Up with smart machines producing a motive as its product conduct downstream towards small and medium enterprises (UMKM), especially in the Toba Samosir area. Two places that became the location, among others, were Batikta and Caldera.

Batikta

Batikta is a creative economy business that supports traditional SME marketing in the Toba area, targeting tourists. It offers a wide range of Toba souvenirs, including clothing and food. Batikta was founded in 2011 and has grown to have a significant outlet. Batikta is one of the partners in the Kedaireka Matching Fund program with DiTenun, engaging in a joint venture cooperation. DiTenun provides training to young weavers at Batikta's weaving workshop, using the DiTenun app for designing unique ulos weaving motifs. This collaboration empowers weavers and allows Batikta to market the ulos weavings in their gallery,

catering to tourists' interest in buying ulos. The flow of cooperation carried out is as follows (Figure 2). Based on the flow of cooperation above, the main target of this collaboration is to produce Ulos weaving with motifs produced by DiTenun's technology and another main target is to regenerate young weavers to preserve this Ulos woven culture.

Kaldera

The Nomadic Escape Caldera is one proof of the natural wealth that Indonesia has because of its uniqueness and potential landscapes. The caldera is located in Sibisa Village, Ajibata, Toba, North Sumatra. The Toba Caldera was inaugurated in 2019 by the Minister of Tourism, Arief Yahya. DiTenun as a start-up that focuses on generating motifs sees the great potential in the Caldera through the inspiration seen on Toba's endemic plants. The collaboration was carried out by making The Kaldera Nomadic a partner for downstreaming and commercializing DiTenun application products. The products also become the Caldera's official merchandise considering that Caldera has not had special souvenirs. The flow of ditenun collaboration with Kaldera in Figure 3.

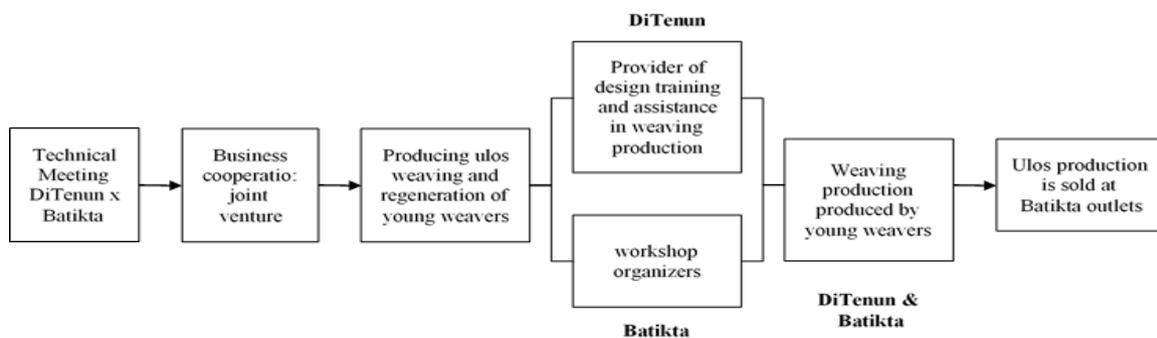


Figure 2. The Flow of DiTenun and Batikta Collaboration

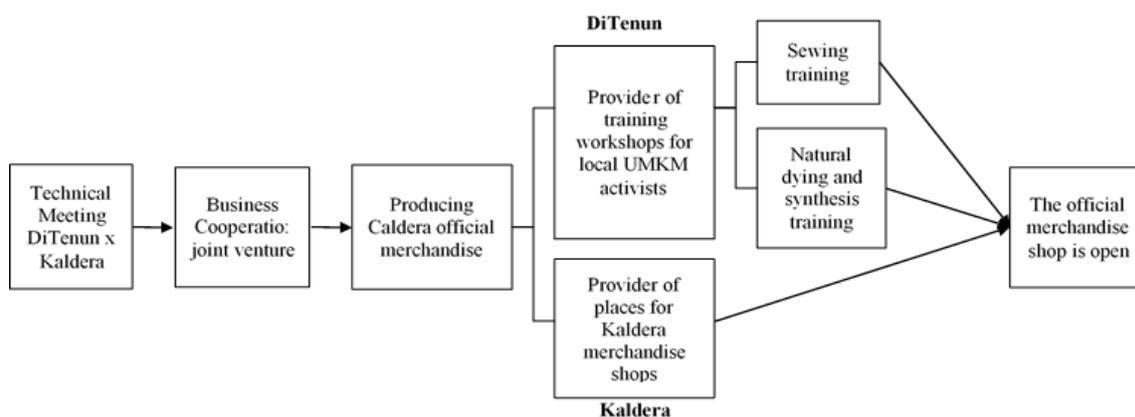


Figure 3. The Flow of DiTenun Collaboration with Kaldera

One of the downstream programs and commercialization of DiTenun application products is *Design Your Own DiTenun x Caldera*. This program was carried out in collaboration with the Lake Toba Authority Executing Agency (BPODT) - The Caldera Toba Nomadic Escape (Caldera). The aim is to activate Caldera's commercial potential to fulfill its function as a Public Service Agency, confirm Caldera's position as the main destination of the Toba Geopark and Lake Toba as one of the 5 DSP (Super Priority Destinations) in Indonesia, and form sustainable and profitable business partnerships for both parties which in the future will be prepared together. The outline of the work to be carried out in this program is to conduct 2 trainings, namely: 1) Sewing training and 2) Natural and chemical dying training

The outputs of these three trainings are products that will potentially be used as Caldera official merchandise. Souvenir or Official merchandise is an item that is the result of the creativity of the craftsmen of a particular area that can carry memories and stories about that area. Making souvenirs must be based on something that has a story and characteristics. Endemic plants that only grow in the Toba area are the reference and basis for making motifs for souvenirs to be sold. Each motif will later be printed on every item that will be sold, namely T-Shirts, tote bags, and pouches. The plants that are used as references in making motifs include:

1. Sumatran Pine

Sumatran Pine or known as *Pine merkusii* has great economic potential for the Toba people. Pine wood is cultivated as a raw material for making furniture, matchsticks, electricity poles, plywood, children's toys, and paper. The extract of the sap of this pine is very special because it cannot be found in other types of forest products and has excellent quality. The type of sap produced by the pine can also be processed into *gondorukem* (an ingredient for making soap, resin and paint) and *turpentine* (an ingredient for the perfume industry, medicines and disinfectants) (Figure 4).

2. Sampinur tali

Sampinur tali (*Dacrydium elatum*) or often called the Sempilor tree has a type of wood that is commonly used to make wood materials for pencils. This tree can be green all year round so the Toba people often use it as a shade on the streets (Figure 5).

3. Attarasa

Attarasa (*Litsea cubeba*) is better known as Chinese pepper. The Sundanese call it Kilemo, while in Java it is known as Krangean. The Sumatran people, especially the Batak Tobs, call this type *Antarasa* (Figure 6). The fruit of Attarasa is similar to pepper. Attarasa leather has smooth skin, not curly like *andaliman*. The taste is similar to andaliman, but the sting (mangampir) is not as strong as andaliman. Antarasa cannot not be used as a substitute for andaliman for naniura, but it is great as a flavor generator to be sprinkled with white rice, or as a flavor enhancer for tomato salad.

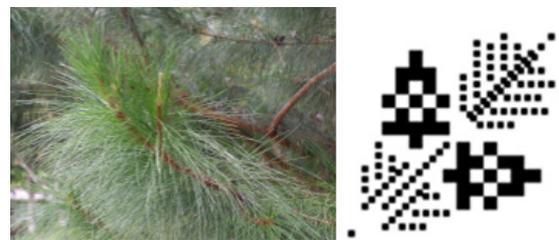


Figure 4. Sumatran pine plants and motive inspiration



Figure 5. The sampinur tali plant and motive inspiration

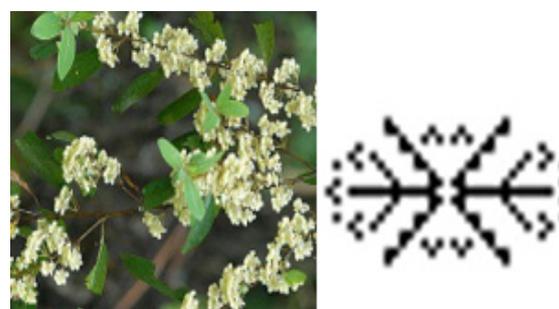


Figure 6. Attarasa plants and motive inspiration

4. Andaliman

Andaliman is a plant that only grows in the Toba area and has a distinctive taste. This plant will usually always be found in every typical Batak food (Figure 7). This unique thing is expected to be a differentiator from other souvenirs and can tell many stories about the Caldera itself. Andaliman (*Zanthoxylum acanthopodium*) or Batak pepper in North Sumatra is not only used as a seasoning for dishes, but also as a preservative and antioxidant. If you experience colds, inflammation, and sore wounds due to accidents, you can consume this spice because andaliman contains analgesics that can relieve pain. The color of the leaves is also quite unique, the top is green and the bottom is slightly reddish.

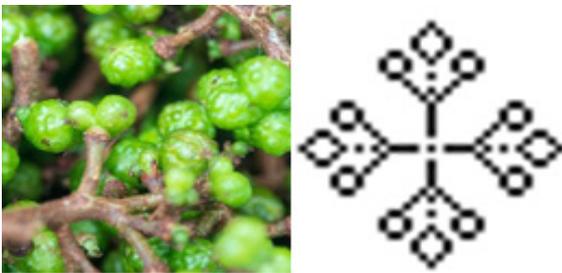


Figure 7. Andaliman fruit and motive inspiration

Business Model Canvas

The business model canvas is the points and goals of a company (Utami and Saraswati, 2018). Digital Tenun Nusantara can be B2B and B2C. Therefore, it requires a business model to make it easier for DiTenun to develop its company in a good and directed manner. For this reason, we, as writers, designed a canvas business model for DiTenun. This time, the author describes the two forms of Diwoven business in a BMC as below.

Based on the BMC (Musfar et al. 2022) (Figure 8), a number of analysis can be seen including:

1. Value Propositions; the selling point of DiTenun is the use of machine learning-based technology to create motifs that can be used in designs with woven characteristics. In addition to making motifs, DiTenun can also produce ulos woven paper which can make it easier for weavers later when they are about to weave.
2. Key activities; is an activity carried out within the company with the aim of achieving the value to be sold. The main activities are developing motifs to be used on each product, participating in cultural awareness programs to expand in the field of motifs, to conducting periodic promotions to attract customers.
3. Key resources; the resources for carrying out the above activities that are only owned by DiTenun itself such as the DiTenun software which is useful for creating every motif, various traditional archipelago weaving motifs, programmers, and the weavers.
4. Key partners; the partners that help DiTenun to produce products such as the weavers who produce ulos with workbook results from DiTenun, e-commerce, suppliers of raw materials in product production, and government institutions and investors who help through injections of funds and development programs .
5. Customer relationships; being an external part of a business to build relationships with buyers so that consumers get every benefit and the company gets feedback given by every customer. For this reason, DiTenun does things such as conducting periodic promos for each buyer, providing consultation on each design, and providing subscription models to each institution and weavers for B2B.
6. Channels; the place where DiTenun can promote each of its products. Instagram, which is the largest social media, the DiTenun website, as well as E-Commerce.
7. Customer segment; the target of DiTenun customers according to the segmentation that has been done. In this case, DiTenun can be B2B as well as B2C. Dtenun's customers in the form of B2B include designers, weavers, UMKM with woven products, and government institutions through cultural programs. In the form of B2C, Dtenun's customers include people who especially like woven fabrics with Indonesian motifs.
8. Cost structure; this section discusses the cost of this business. At DiTenun, the costs include product production, employees paying, operational costs, and renting an office in Bandung.
9. Revenue stream; income for the DiTenun business, among others, from profit sharing with various partners and the proceeds from the sale of each product.

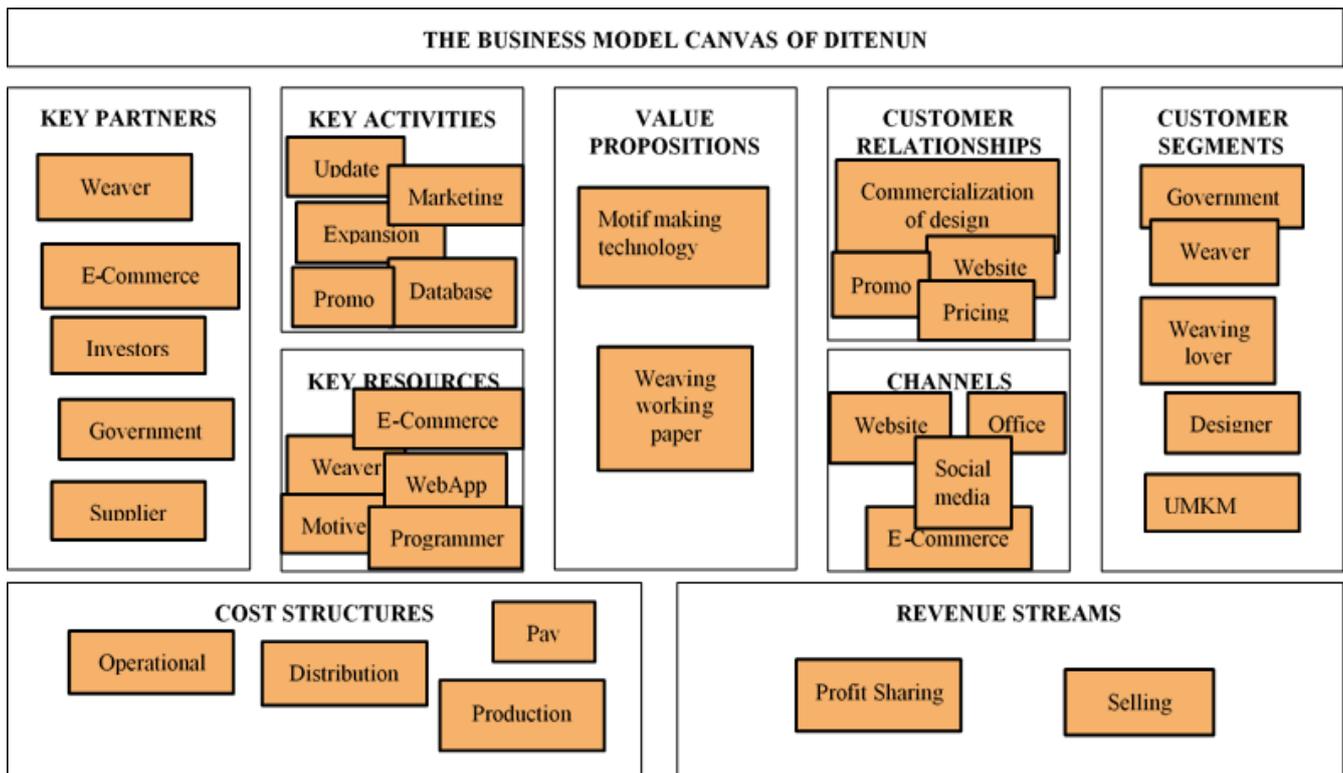


Figure 8. Business Model Canvas of DiTenun

The collaboration that was forged by DiTenun with the two partners above in the Kedaireka program certainly resulted in a different canvas business model from the original model. This is due to the mixing of the values to be sold so that the nine blocks will have different contents from the original one (Figure 9).

Ulos is a cloth with a motif that is the same or reflected on the top and bottom. Traditionally, Ulos cloth with ulos woven motifs is very crucial or it can be said that is usually used only on special occasions. Consequently, the number of buyers and users of the ulos decreases. This has also had a big impact on the weavers. Due to the lack of buyers of ulos weaving, their jobs and income have decreased. Therefore, DiTenun is working with Batikta in the process of making ulos cloth with unique motifs, focusing on birds. Its use is no longer bound by customary laws because the motifs used are modern ones but are still ulos woven. It is hoped that new target customers will emerge so that the production wheel can run again and any parties involved can benefit.

The collaboration that was established included training in using WebApp. DiTenun conducted training for surrounding SMK students, teachers and weavers. The training began with generating motifs: participants were asked to generate motifs with the DiTenun WebApp.

Then, the participants drew motifs with crosses. These motifs would be used in ulos for working papers. In the end, the participants designed the ulos paper with the specified colors and the motifs that had been made earlier.

With the collaboration forged between DiTenun and Batikta like the BMC (Figure 10), a business model was obtained. The explanation of the business model is as follows:

1. Value Propositions: Batikta is strategically located near the Toba tourist area, offering a variety of Toba souvenirs that focus on storytelling. Products are collaboratively created with local craftsmen and ulos weavers, including batik, clothing, food, and drinks made by local people.
2. Key activities: Batikta engages in design, production, and marketing activities while emphasizing product quality. The business prioritizes friendly and skilled service to counter the unfriendly seller stigma. Regular promotions help maintain product stock balance.
3. Key resources: Batikta requires a team of designers, production and marketing resources to fulfill its activities. They also have a team of storytellers and utilize Batak ulos motifs to produce authentic products.

4. Key partners: Batikta collaborates with local SMEs, weavers, resellers, a clothing supplier, and investors to support its business operations.
5. Customer relationships: Batikta uses strategies like product consultations via WhatsApp, maintains service friendliness, provides suggestion boxes, reviews on Google Maps, and testimonials to understand and meet customer needs.
6. Channels: Batikta connects with businesses through resellers, social media, festivals, website updates, collaborations with local MSMEs, and an offline gallery shop.
7. Customer segments: Batikta targets domestic and foreign tourists passing through Balige, travel agent users, working-age individuals (27-60 years) who can afford their products, and visitors seeking unique souvenirs.
8. Cost structures: Batikta incurs costs related to production, employee payments, operations, loans, and shipping goods from Bandung to Balige.
9. Revenue streams: Batikta generates revenue through direct and indirect product sales, including collaborations with partners like DiTenun through profit sharing.

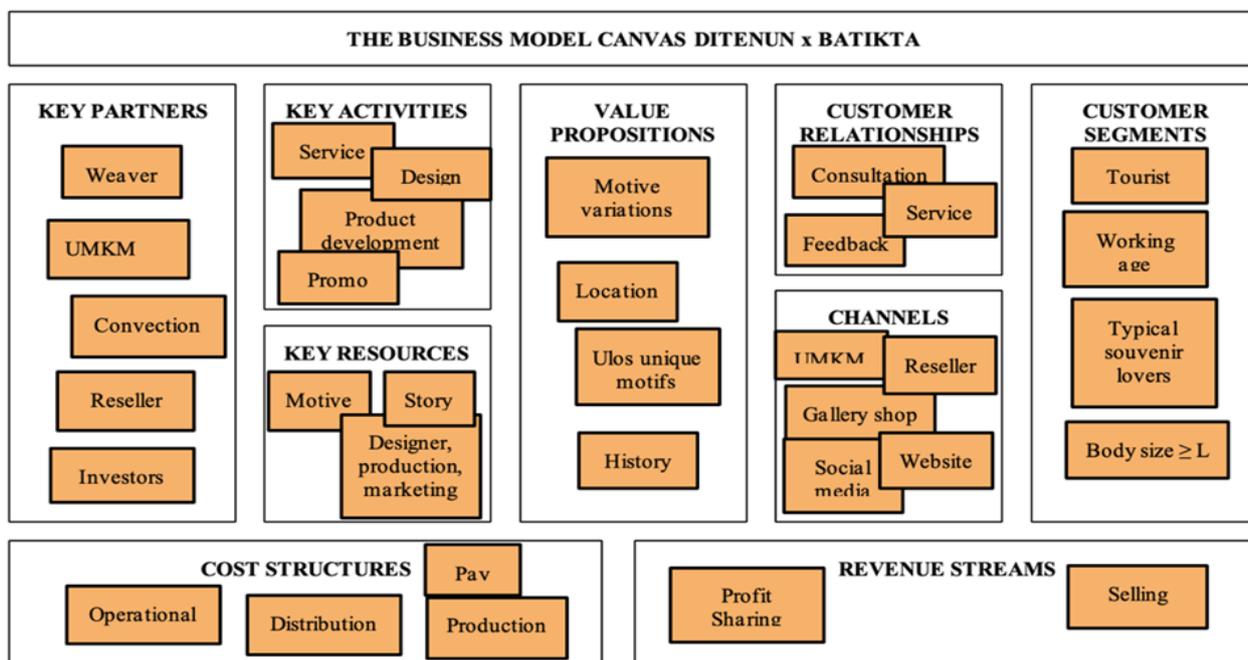


Figure 9. Business Model Canvas DiTenun dan Batikta

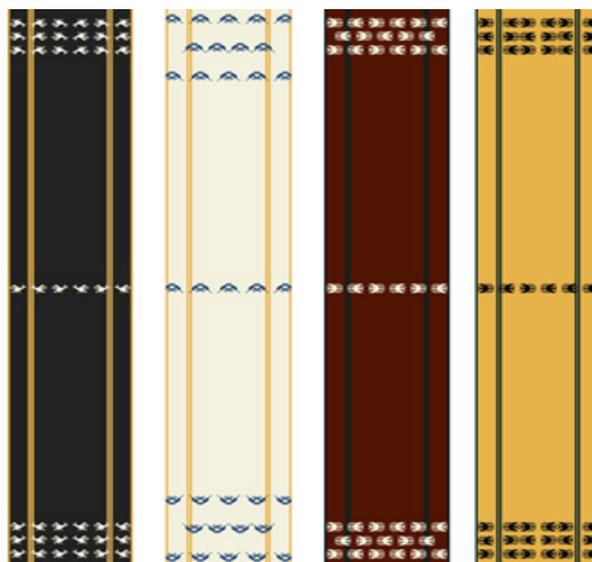


Figure 10. Design of Ulos in DiTenun and Batikta Collaboration

Further cooperation is carried out with the caldera which is a tourist spot with its natural wealth. The form of cooperation carried out with Caldera is in terms of making official merchandise. So far, the caldera itself doesn't have souvenirs that are characteristic of them, so visitors usually only come to take photos and enjoy the view and then go home. For some of the tourists there, this is less interesting because they don't have things that can carry stories from that place when they return. Therefore it was decided to produce caldera souvenirs with motifs from plants endemic to North Sumatra using DiTenun. The choosing of products for souvenirs is based on the behavior of customers who come and go. Observations were made to see the stages and activities carried out by the visitors, starting from arriving, taking pictures, and returning home. It was found that there were some visitors who had difficulty carrying their belongings. The researchers also conducted interviews and it turned out that some visitors wanted T-shirts and pouches. So it was decided to produce T-shirts, tote bags, pouches and scarves. However, innovation is needed in it so that each item produced in plain colors and the tie dye motifs are brown and blue. Business Model Canvas DiTenun and Kaldera in Figure 11.

Innovation was also made by adding motifs to each product. Adding motifs is based on the endemic plant motifs above. Apart from selling products, DiTenun also sells experiences to customers, later customers can design their own products using DiTenun's WebApp

with the above endemic plant motifs (Aulawi et al. 2022).

1. Value Propositions: The caldera is one of the prioritized tourist objects to be developed in the development of the Lake Toba tourist area. The caldera is located in a very strategic place because tourists will surely pass it when visiting the caldera. With this strategic location, the business collaboration between DiTenun and Kaldera to form Official Merchandise will always be an attraction for tourists visiting their stand. Through this collaboration, products sold include t-shirts, pouches, tote bags with tiedyer motifs, purun bags, etc. The making of motifs of these products was assisted by technology owned by DiTenun and the motifs are made based on the characteristics of the caldera which has a rich flora. The plants that became the inspiration for the motifs were Sumatran Pine, Andaliman, Attarasa, and Sampinur Tali. This is what makes the products sold have the characteristics of Caldera.
2. Key activities: an activity carried out within the company with the aim of achieving the value to be sold earlier. Activities that are continuously carried out to achieve this include making innovations towards the products and their motives, product marketing techniques, and services that must always be friendly and give a good impression to consumers.

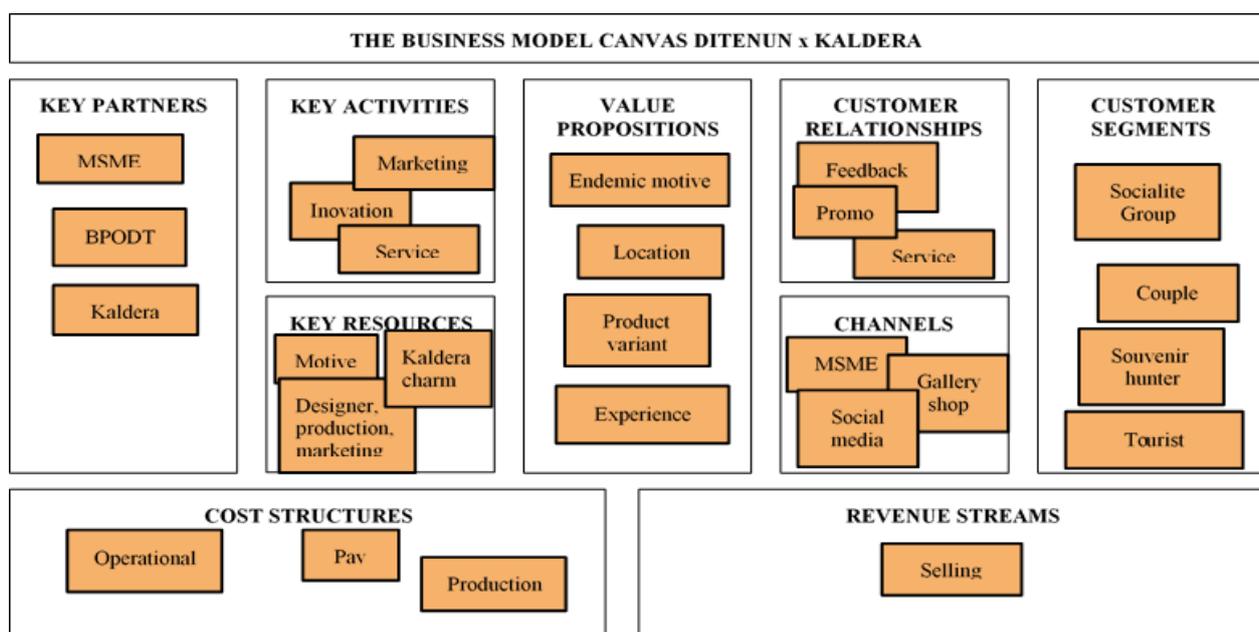


Figure 11. Business Model Canvas DiTenun and Kaldera

3. Key resources: the main source owned by DiTenun and Kaldera in the existence of selling Official Merchandise products is the charm of the Caldera which always attracts the attention of tourists, the development team (designers, marketing and production), and the pattern of endemic plant motifs that characterize the product.
4. Key partners: the parties involved in the formation of this Official Merchandise are The Kaldera Nomadic Escape, local UMKM, and the Ministry of Education and Culture with its *kedaireka* program which DiTenun participated in.
5. Customer relationship: being an external part of a business to build relationships with buyers so that consumers get every benefit and the company gets feedback given by every customer. For this reason, DiTenun does things such as conducting periodic promos for each buyer, manners that impress visitors, and asking consumers for feedback on the products they purchased.
6. Channels: the places where DiTenun can promote each of its products. These include Instagram, which is the largest social media (DiTenun, BPODT, and IT Del), local UMKM, as well as store outlets in the Caldera location.
7. Customer segment: the target customers of the establishment of Official Merchandise are domestic and foreign tourists who visit the Caldera, socialite mothers who come from outside the Toba Samosir area with their groups and want to have souvenirs from the Caldera, couples who want couple souvenirs, and souvenir hunter.
8. Cost structure: this section discusses the costs of this business collaboration, these things are product production, employee salaries, and stand operating costs.
9. Revenue stream: income for this business cooperation is the sale of products.

SWOT analysis

SWOT analysis was carried out to identify crucial matters from the collaboration that has existed between DiTenun and Batikta and Kaldera Figure 12 and Figure 13. In order for the business to continue to grow, it is necessary to increase the strengths so that the business can continue to exist and then improve on the weaknesses, because this can at any time become a new threat for the company. Companies are also asked to be able to take advantage of every moment of opportunity so that the business can be sustainable.

Strength	Weakness	Opportunities	Threats
<p>Ulos with unique motifs such as birds can be used freely regardless of customary provisions</p> <p>Weavers who are able to read work papers from DiTenun make it easier to create new and unique motifs</p> <p>Had a good reputation before</p>	<p>Regenerating young weavers</p> <p>Product marketing and provision of limited product stock</p> <p>Lack of human resources to be able to produce large-scale products</p>	<p>Only few sell ulos woven Batak with unique motifs</p> <p>DTenun WebApp capabilities in creating worksheets</p> <p>Increasing the interest of ulos weaving lovers, because of the motives they have</p>	<p>The emergence of external competitors with the same concept</p> <p>Changing market trends and a lack of consumer interest in the unique motifs on ulos cloth</p>

Figure 12. SWOT Analysis of Cooperation in DiTenun and Batikta

Strength	Weakness	Opportunities	Threats
<p>Official merchandise with additional motifs from plants endemic to North Sumatra as memory carriers</p> <p>Customers gain experience in designing motifs for their own products</p>	<p>Uncompetitive prices (only affordable by some market segments)</p> <p>Conventional product marketing</p> <p>There is a waiting time in the production process</p> <p>Lack of employees who are able to operate and maintain the store every opening hour (everyday 10.30-15.30)</p>	<p>No one has sold souvenirs in the Caldera yet</p> <p>Woven WebApp capability in designing motifs to products</p> <p>Ideal selling point in DSP (Super Priority Destination) locations</p>	<p>The emergence of external competitors with the same concept</p>

Figure 13. SWOT analysis of DiTenun and Caldera cooperation

Managerial Implications

This paper focuses on providing benefits to the management of Digital Tenun Nusantara through the development of a more optimal business model. By conducting Business Model Canvas (BMC) analysis, the management can identify key elements within their business, understand the relationships between these elements, and make the necessary changes to enhance the efficiency and effectiveness of their business model. Furthermore, this paper assists the management in gaining a deep understanding of the business environment by utilizing SWOT analysis. This analysis helps identify internal strengths, weaknesses, as well as external opportunities and threats. With a comprehensive understanding of the business environment, the management can make well-informed and adaptive strategic decisions. By combining BMC and SWOT analysis, this paper also offers insights into effective business development strategies for Digital Tenun Nusantara. These strategies include leveraging digital technology, developing online distribution channels, collaborating with local designers and influencers, and enhancing the brand image. Moreover, the paper emphasizes the importance of data-driven decision making. By utilizing the provided analytical framework, the management can collect and analyze relevant data, enabling them to make purposeful and informed decisions, thus reducing uncertainty and improving decision quality. Ultimately, the implementation of the recommendations and strategies proposed in this paper can lead to improved competitiveness and sustainable business growth for

Digital Tenun Nusantara. The development of a better business model, a deeper understanding of the business environment, and the strategic implementation of the right strategies can help the company navigate intense competition and capitalize on existing opportunities.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Establishing business collaboration is carried out to increase the number of opportunities and customers so that economic growth happens. Through the Kedaireka program, DiTenun has successfully collaborated with the B2B model to open new business opportunities.

At Batikta, DiTenun has succeeded in producing ulos with unique and new motifs through technology owned by DiTenun, which is not bound by customary law, so that buyers can wear them freely at every event. Batikta has to prepare their young weavers to create new motifs with the WebApp from DiTenun and produce the ulos to develop the skills and increase the income of the weavers.

Collaboration with Kaldera in making souvenirs is also the right choice of business model. Caldera still needs to get souvenirs, and there still needs to be more activities to do there apart from taking pictures. Therefore, DiTenun comes with its sophistication. Not only selling finished products, but DiTenun also sells experience to buyers in designing their souvenir

products using motifs originating from plants endemic to North Sumatra. This can be a new story that buyers can take away so that Caldera is increasingly known and has souvenirs with their uniqueness.

From the BMC (Canvas Business Model) that has been designed for weaving, the company can further develop it in the elements of several elements. On the key activities element, it can focus on building a community of weavers when marketing expansion is better at selling its products. On the key partner element, it can expand its partners to the ones who can make DiTenun more developed, both in terms of business and production. On key resource elements, they can further develop their technology so that they can produce more perfect motifs and can be much easier for weavers to understand. Another essential thing that DiTenun needs to pay attention to is participating in critical programs to help DiTenun expand its business.

Recommendations

Improving business performance can use many analytical methods. At this time, the author used the BMC method and SWOT analysis. Next projects can do business analysis using various methods. The researcher hopes that DiTenun can use the Business Model Canvas that has been created as a reference in carrying out its business processes so that in the future it will be clearer and more focused for the business in carrying out its business activities.

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