

Business Process Modeling for Sorghum Entrepreneurs Using Business Model Canvas

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Abstract

Business models are required because of the features of market economies where there is consumer choice, transaction costs, heterogeneity amongst consumers and producers, and competition. Since 2009, Universitas Wijaya Kusuma Surabaya (UWKS) has been involved in the intensification of alternative food programs and substitution of imported food as well as encouraging sorghum commodity entrepreneurship. UWKS created the Unit Entrepreneurs Sorghum (UES), which aims to create new entrepreneurs in the sorghum sector, so that the development of sorghum as an alternative food can be maximized. Untill now there are 26 Units Entrepreneurship Sorghum (UES) have been formed). It is crucial for UES to understand the description of the running business model to determine the appropriate competitive strategy to be implemented. Thus, the study focuses on conducting research in the form of business model canvas implementation on the Unit Entrepreneur Sorghum in UWKS. This research used the observation, indepth interview, and questionnaire to 26 UES. The study of literature review was also implemented in collecting the data and information to discover the phenomena and problem which required to be solved. The identification of business model of UES is conducted through mapping the nine building blocks of business model canvas: customer segments, value propositions, channels, customer relationships, revenue streams, key activities, key resources, key partnerships, and cost structure. The analysis shows that it requires the improvement in almost all nine blocks of business model canvas for sorghum entrepreneur. The business model improvement for sorghum entrepreneur focuses on the marketing activity. It should be prioritized in the digital marketing to increase the revenue streams of sorghum entrepreneur.

Keywords: Business model, Digital Marketing, Entrepreneurship



INTRODUCTION

Every company has a business model, whether that model is explicitly articulated or not (Erwin, 2013). Business models are required because of the features of market economies where there is consumer choice, transaction costs, heterogeneity amongst consumers and producers, and competition (Teece, 2010). According to Ghaziani and Ventresca (Ghaziani, 2005) the public talk about 'business models' commenced in the early 1970s and rose to prominence halfway the 1990s, at the same time as the digital economy.

One of the basic methods of designing business ideas and proposals is the Business Model Canvas (BMC) method. This method is a business model analysis tool by presenting data in a simple but comprehensive manner on the nine essential components of a business. This method is so popular and widely used in various research case studies (Hermawan, 2020; Indah, 2020; Kamaluddin, 2020; Agusty, 2020; Nurhayat, 2020; Ojasalo and Ojasalo, 2018; Ruspriono, 2020; Siburian, 2020; Tirtayasa, 2020; Victor, 2020). Even though it is simple, BMC can help in the initial phase of validating a business idea at the planning stage so that it is more mature and ready to run.

Since 2009, Wijaya Kusuma University Surabaya (UWKS) has been involved in the intensification of alternative food programs and substitution of imported food as well as encouraging sorghum commodity entrepreneurship. Sorghum became the choice because it was a food commodity that had long been known before the era of growing rice, especially on the island of Java, was easy to grow in almost all areas, both in the lowlands and in the highlands, and was superior to being planted on marginal lands or in rice fields without technical irrigation. during the dry season, as well as plants that are able to adapt admirably. Finally, UWKS created the Sorghum Entrepreneurship Center (SES-UWKS), which aims to create new entrepreneurs in the sorghum sector, so that the development of sorghum as an alternative food can be maximized. To date, 26 Sorghum Entrepreneurship Units (UES) have been formed. Sorghum seeds that can be processed can be used as rice, flour, bran, various flour-processed products into various wet cakes: nagasari, lapis, solo sausage, onde-onde, and others, as well as various pastries: sticks, pies, and various cookies. , bakery, pizza, functional beverage products, fermented tape products and others, as well as sorghum stalks which can be processed into sorghum stalk syrup, as well as various non-food products, health products (sorghum-based ointment and hand sanitizer spray), cosmetic products (masks and sorghum-based soap), sorghum batik products, and sorghum souvenir products (vases and others).

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create new entrepreneurs in the sorghum sector, so that the development of sorghum as an alternative food can be maximized. Untill now there are 26 Units Entrepreneurship Sorghum (UES) have been formed. Sorghum seeds that can be processed can be used as rice, flour, bran, various flour-processed products into various wet cakes: nagasari, lapis, solo sausage, onde-onde, and others, as well as various pastries: sticks, pies, and various cookies. bakery, pizza, functional beverage products, fermented tape products and others, as well as sorghum stalks which can be processed into sorghum stalk syrup, as well as various non-food products, health products (sorghum-based ointment and hand sanitizer spray), cosmetic products (masks and sorghum-based soap), sorghum batik products, and sorghum souvenir products (vases and others).

The development of the visualization tools of business model has been conducted by Osterwalder and Pigneur (2012) in the form of BMC. The use of the model is able to explain the business model of company and the relationship amongst the components in the model (Kosasi, 2015). The model also supports the company to identify the value proposition of company as well as to show how to build and run the key activities and key resources in creating the value proposition and gaining the revenue streams. It also helps to understand how the supplied products and services of company can be well communicated and be distributed to consumers (Hartatik & Baroto, 2017). It is crucial for UES to understand the description of the running business model to determine the appropriate competitive strategy to be implemented. Thus, the study focuses on conducting research in the form of business model canvas implementation on the Unit Entrepreneur Sorghum in UWKS.

LITERATURE REVIEW

Business Model Canvas

The canvas business model is one of the most popular business models in use today. The canvas business model is depicted through nine basic building blocks that show the logic of how a company intends to make money. These nine blocks cover the four main business areas namely customer, offering, infrastructure, and financial feasibility. In a book entitled "The Startup Owner's Manual: The Step-by-Step Guide for Building a Great Company", written by Anaseputri (Anaseputri, 2021), is explained the nine elements in the business model canvas (customer segment, value propositions, channels, customer relationships, revenue streams, key resources, key activities, key partners, and cost structure). In running its business, the organization must first determine who should be served. Organizations can assign to serve one or more segments. This segment assignment will determine other components in the business model. This customer segment element/block describes who will be the target market for the goods or services offered. Value propositions are the benefits or value that the company offers to the market segments it serves. This value offering is also the reason why customers should buy the goods or services offered. Channels are a means for companies to deliver Value Propositions to the Customer Segments served. They are canal for connecting with customers. Customer relationships are the means by which a company maintains a good relationship with its customers.



Revenue Streams are the revenue that the company receives from each market segment, or in other words, revenue streams are income which is usually measured in terms of the money that the company receives from its customers. Key resources are the main resources a company must have to run a business. Generally, the resources needed are in the form of human, technological, financial, and physical resources (raw materials and other materials). Key activities are the main activities that must be controlled by a company to run a business. In manufacture industries, activity components are divided into three parts, namely the procurement of raw materials, processes and marketing. Key partners are the resources needed by the company to realize its value proposition, but not owned by the company. Utilization of Key Partners by companies can be in the form of outsourcing, joint ventures, joint operations, or strategic alliances. Cost Structure is the composition of costs to operate a business in realizing the value proposition it provides to customers. It describes as the cost structures involved in the business, both fixed and variable costs, maintenance costs, operational costs, etc. Prof. Hong Y. Ching and Clemens Fauvel (2013) highlight the importance of using BMC and recommend it for entrepreneurs and academics. BMC helps budding entrepreneurs develop business plans and have a more holistic understanding of their business. Alexander Osterwalder and Yves Pigneur (2010), introduced the concept of a business model that everyone can understand, starting from the same point and talking the same thing, with concepts that are simple, relevant, and intuitive to understand, while not overly simplifying the complexity of how the company functions.

Entrepreneurship

Entrepreneurship is discipline (Croci, 2016). Entrepreneurship is a distinct, being a discipline by its own right. Croci (Croci, 2016) also defined entrepreneurship with autonomous discipline that can operate independently as well as interdisciplinary. Other study defines entrepreneurship as "practice begins with action and creation of new organization" (Barot, 2015). Barot (Barot, 2015) also stated that entrepreneurship is a key to success and every individual that creates a new organization of business means enter into a new paradigm of entrepreneurship. Nevertheless, the entrepreneurship is an activity that shifted the old habits into the new one with fully discipline and independent. Entrepreneurship is an art (Chang et al, 2015). Chang (Chang et al, 2015) stated that "art entrepreneurship is relatively new topic of research and the focus area are exploring the management process of entrepreneurship such as creativity and autonomy, capacity for adaptability, and create artistic as well as economic and social value". There are many definitions of entrepreneurship, some of them are seeing entrepreneurship as a process of successful organization, and other define entrepreneurship as building mindset and skills. However, the final destination of entrepreneurship definition is generating jobs opportunities and lead to economic development (Barot, 2015) (Hessels, 2019). Next, entrepreneurship must employ manpower resources with technical and skill labor and managerial talents (Barot, 2015) (Chang et al, 2015). As stated above that entrepreneurship is defined at one point. Hessels (Hessels, 2019) describe entrepreneurship as the intersection to the

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development economics. Then the theory is developed by researcher as shown below:

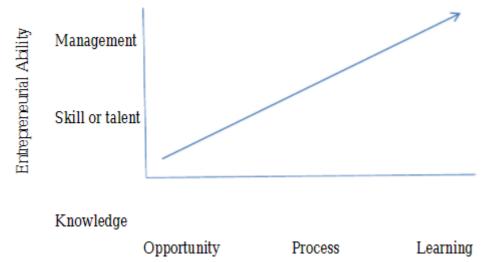


Figure 1. Entrepreneurship Process toward Economic Development

From figure 1. we can conclude that entrepreneurship is closely linked to opportunity recognition and emphasizes the importance of knowledge and skill as the basic entrepreneurial ability (Hessels, 2019). Hessels (Hessels, 2019) pointed out that entrepreneurial ability will bring innovation to the market through entrepreneurship process and learning. At the end, management of entrepreneurship will creates sustainability in order to promote economic growth (Chen et al, 2018).

METHODS

The location of the study was chosen at UES UWKS. The purposive sampling was applied in determining the type of respondents. It was decided based on their own field. There were two categories on respondents: internal and external. The internal respondents were the 26 of owner of UES, the marketing manager and production manager whereas the external respondents were 30 consumers.

The data collection techniques used the observation, in-depth interview, and questionnaire. The study of literature review was also implemented in collecting the data and information to discover the phenomena and problem which required to be solved.

RESULTS AND DISCUSSION

Business process modeling for Sorghum Entrepreneurs using Business Model Canvas, considered as having the ability and capacity in providing relevant information proven with the needed data to identify each element of business model canvas. They also have the authority in formulating the improvement of the next business model which in turns it will result the improved program to develop



and maintain the existence of the company. The identification of nine building blocks of business model canvas for sorghum Entrepreneurs can be seen in Figure 2 and as follows:

1. Customer Segments

It is a targeted of people could be man or woman and health aware because Sorghum flour has low glycemic index and high fiber which can reduce fasting blood glucose and increase insulin sensitivity (Arini, 2020). So customer segment UES are people to preserve sorghum and people have middle and higher income.

2. Value Propositions

It is devide by two group there are Processed sorghum in the form of food and Processed sorghum in the form of souvenir. For Processed sorghum in the form of food, product added value are does not preservatives, not greasy, have good quality product and have zipper lock packaging. For Processed sorghum in the form of souvenir, product added value are have good quality product, attractive packaging neat packing, have unique and interesting form of souvenir and using natural ingredient.

3. Channels

Channel facilitates UES to connect the customers in offering and delivering the value propositions are using direct selling, using retailer to deliver product and also online selling. The distribution channel considers as conventional because the online-based marketing has not been used frequently (Widyastuti & Novian, 2018).

4. Customer Relationships

Personal assistance is type of relationship built by UES which is based on the direct interaction to the customers. Wonodjojo & Indriyani (Wonodjojo, 2017) explain that customers are able to criticize and suggest the company to create the value added of the product. UES maintains the relationship with customer through offering the product to the customers and creating group in social media. UES uses the retention and motivation strategy to keep the customer being loyal with the company. Majority of customers keep on buying product in UES is due to the good quality of product, delicious taste and excellent service.

5. Revenue Streams

Revenue streams are income earned by company in the form of money (Kamila et.al., 2018) describes that the transaction of selling the product can be measured in the form of money. UES can make their revenue from sorghum product sales, sales of unused oil and sorghum skin sale



6. Key Resources

Key resources show the crucial needed assets of company (Rukka, Busthanul, & Fatonny, 2018). The main resources can be in the form of both physical and financial. The key resources of UES are:

- Buildings for selling places, vehicles, cash registers
- Excellent product sorghum
- Patent
- Customer database
- Human: Professional workforce to process sorghum
- Financial: financial resources

7. Key Activities

There are some key activities of UES that have been conducted which are:

- Purchase of raw materials
- Production process
- Promotion and marketing
- Product evaluation and development

8. Key Partnerships

The company maintains the relationship with the government institution. The partner supports the company in lending the drying machine for shredded so that the production process will be more effective. So UES collaborate with strategic alliance between non competitor, competitor sorghum, sorghum's farmer and retailer sorghum, supplier of sorghum, legality licensing government (BPOM), SNI, barcode and banking.

9. Cost Structure

In running company, the cost is undeniable. There will be cost in operating the business. The cost structure depends upon the activity of key resources management, key activities management as well as the built partnership to support the running business model. The cost structure of producing sorghum are:

- Investment costs
- Fixed production costs
- Depreciation costs
- Loan installments

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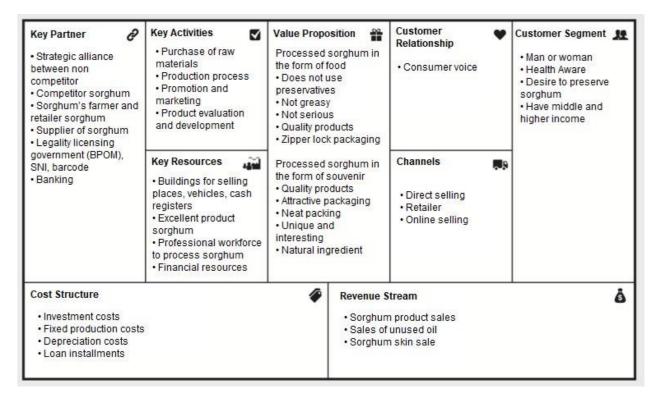


Figure 2. Result of new BMC for Sorghum Entrepreneurs

Sales Results using New BMC

At this stage, implementation of modeling business is carried out by looking at sales data for the last 2 years of sorghum products which are marketed directly or through retailers. Direct selling by selling directly to potential customers. Potential customers in this case are friends, colleagues, and relatives. The retailers in question are retail stores and gift centers. Sales were carried out for approximately the last 2 years from the beginning of January 2018 to the end of December 2019. For one year, 5239 packages of sorghum with a size of 100 g were sold and 2463 packages of 200 g were sold, while in the second year there was an increase in demand where sorghum packaging of 100 g sold 6515 packages and the size of 200 g sold 3034 packages. Sorghum sales are divided into two sales groups. The first group is sold in the general environment, while the second group is sold directly. Sales are carried out throughout Indonesia.

Based on the data from the sale of sorghum for the last 2 years, it is known that 70% of sales came from retail and 30% came from direct sales. Retail sales of sorghum in 100 g packages are 36% of sales and 34% of sales for 200 g packages. Direct sales of sorghum with a size of 100 g are 18% of sales and packaged sizes of 200 g are 12% of sales. The percentage of sorghum sales is shown in Figure 3. The highest sales came from retail sales. Therefore, retail (souvenir shop) is a potential place for selling sorghum products.

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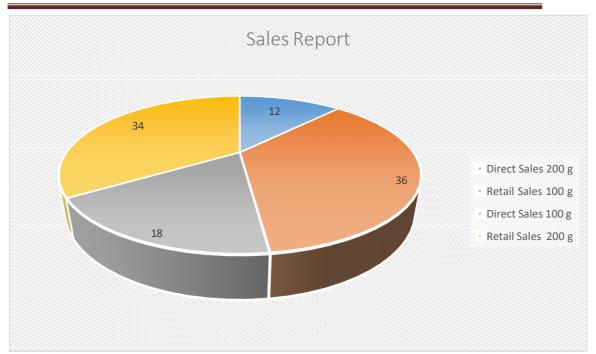


Figure 3. The results of sorghum sales include direct sales of 100 g packaging as much as 18%, direct sales of 200 g packaging as much as 12%, retail sales of 100 g packaging as much as 18%, retail sales of 200 g packaging 34%.

Based on data from the sale of sorghum in the form of souvenirs for the last 2 years, it is known that 68% of sales came from retail and 26% came from direct sales. The results of the sale of sorghum used by the seller as a souvenir include sales of sorghum flowers as much as 47%, sales of wedding souvenirs as much as 41%, sales of sorghum in the form of bags as much as 8%, sales of sorghum as a wall display as much as 4%. Therefore, the sale of sorghum packaged into flowers is a potential place for the sale of sorghum products, as seen in Figure 4.



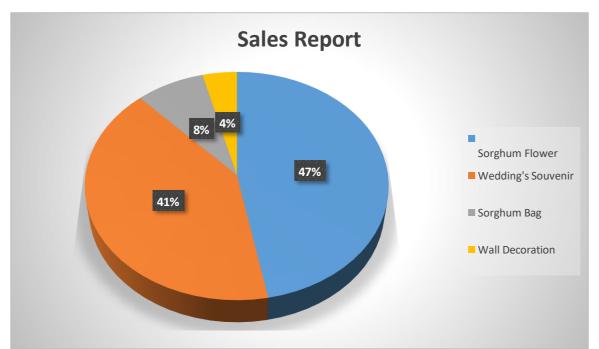


Figure 4. Sales of sorghum used by sellers as souvenirs include sales of sorghum flowers as much as 47%, sales of wedding souvenirs as much as 41%, sales of sorghum in the form of bags as much as 8%, sales of sorghum as wall decorations as much as 4%.

CONCLUSION

The identification of business model of UES is conducted through mapping the nine building blocks of business model canvas: customer segments, value propositions, channels, customer relationships, revenue streams, key activities, key resources, key partnerships, and cost structure. The analysis shows that it requires the improvement in almost all nine blocks of business model canvas for sorghum entrepreneur. The business model improvement for sorghum entrepreneur focuses on the marketing activity. It should be prioritized in the digital marketing to increase the revenue streams of sorghum entrepreneur.

The business management of sorghum entrepreneur should do the improvement on the marketing activity and the networking expansion. It should begin with the socialization to the employee so that it can be well understood and implemented to improve the existed business model. Further research should evaluate the improvement of business model to enrich the research implementation on the business model concept of sorghum entrepreneur

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