

APPLICATION OF BUSINESS MODEL CANVAS IN PRODUCTION AND MARKETING OF SOLOG (ANALOGUE SAUSAGE)

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ABSTRACT

Business Model Canvas (BMC) is an alternative option to create new business models. BMC includes customer segments, value propositions, channels, customer relationships, revenue streams, key resources, key activities, key partners, and cost structure. They are able to support companies aligning their business activities. By applying BMC, companies have several alternatives of business models. A research was conducted in order to apply BMC for Small Medium Enterprises (SMEs) in Jember Regency. The descriptive method was employed to arrange BMC, while the qualitative analysis was applied for data analysis. Primary data collection was obtained by customers' interview. This paper describes the business plan of SOLOG (Analogue Sausage) product and application of BMC in the SMEs. The BMC creation for SOLOG was done in three stages. The first stage was a problem test, the second stage was a solution test and the last stage was verification model business. The last stage was chosen as the business model recommendation that is suitable as a reference in the business activities of SOLOG product.

Keywords: Business Model Canvas, Analogue Sauges , Small Medium Enterprises

INTRODUCTION

Comprehensive information about chicken sausage with analogue meat substitution (SOLOG) has not been available. To support product development, a suitable business model is required to be implemented by small and medium enterprises (SMEs). One method that can be used is creating a business model canvas (Osterwalder & Pigneur, 2012).

A business model plays an essential role, because it presents the competitive advantage of the business (Amit *et al.*, 2010). A business model also helps a business to determine an effectiveness and an efficiency of business activities (Amit *et al.*, 2010). Business model canvas is also a method for projecting financial analysis of a business (Osterwalder & Pigneur, 2012). The analysis of financial projection is a crucial stage of determining the feasibility

of a business (Ferreirra, 2012). By performing business model, the new product is expected to be successful accepted by the market.

RESEARCH METHODOLOGY

Preparation of business model for new product by using business model canvas was necessary, especially for SOLOG. The compilation of a business model canvas is created to facilitate small and medium enterprises (SMEs) to adopt the stages in establishing a SOLOG business. The first step was making an initial hypothesis for nine business components in the business model canvas. The next step was to direct confirm to the prospective customers. The confirmation was conducted by testing both the problem and the solution (Blank & Dorf, 2012). Furthermore, it was verified by selling

products to the market. Confirmation and verification were carried out as improvements to the initial hypothesis of business components. Data analysis was carried out regarding to the Moleong (2012) theory, as follow:

- a. Data collection from various sources through questionnaires.
- b. Data reduction by making abstractions in the form of summaries of the essence of research, processes, and statements following the research objectives.
- c. Data categorization by arranging data into categories based on views, opinions, or certain criteria.

The obtained data were then mapped to the business model canvas, so that the changes that occur can be recorded on the business model canvas (Dewabroto, 2011).

RESULT AND DISCUSSION

3.1 Business Model Hypothesis

A. Customer Segments

The customer segments element describes the target market of the product or the service offered. Customers are the core of all business models. The survival of a company depends on the customers. To satisfy customers, companies grouped customers into different segments based on similar needs, behavior, or other attributes.

The development of SOLOG business model is classified as an open market (existing market). It is because this product has not been well known by consumers. However, product advantages are required to compete in the market (Blank & Dorf, 2012). So, the selected customer segments for the initial canvas business model include all levels of society (unsegmented).

B. Value Propositions

The value proposition element is the benefit or value offered by the company to the market segments. Osterwalder and Pigneur (2012) asserted that "value propositions are the added value of a product or service that becomes the reason

for customers to use it". The value proposition for initial business model canvas may be similar to an existing offered market, with the addition of features and attributes. Several attributes contribute to customer value creation, namely novelty, performance, customization, design, brand, price, cost reduction, risk reduction, and convenience.

The business development of SOLOG can be based on adding value to the product. Adding value to the product can be a new attraction to consumers while answering consumer problems. The value propositions in the initial business model canvas of the SOLOG are as follows:

1) Health

SOLOG is a healthy product. It has good quality because it does not contain preservatives. Besides, this product healthier because it uses analogue meat instead of chicken meat, without reduce the nutrition value in the sausage itself

2) Brand Image

Attractive brand image is one of the initial value propositions. This can attract consumer because, attractive appearance increases the consumer's interest. By naming the product by "SOLOG" or analogue sausage, it makes potential consumers curious to try it.

3) Cleanliness (hygienic)

The "SOLOG" hygiene is an advantage of this product because the cleanliness of the home industry is somewhat questionable. However, the SOLOG production process is made by producing good food (CPMB) or good manufacturing practices (GMP) according to existing standards.

C. Channels

Channels are a means for companies to deliver value propositions to the customer segments served. The types of channels are divided into two, namely direct and indirect (Osterwalder & Pigneur, 2012). In the initial "SOLOG" business model, the channels required include direct selling by producers and indirect sales through retailers.

D. Customer Relationships

Customers relationship requires a special approach because the business venture SOLOG is still relatively new. Producers and sellers need suggestions and even criticism from consumers for product improvement. In this case, several ways to build a good relationship between producers and consumers is essential. One form of that relationship is personal assistance. According to Osterwalder and Pigneur (2012), The personal assistance relationships is form of relationships based on human interaction. Customer service personnel provided communication services to the customer and assist the sales process or services after complete sales. This communication can be done at the point of sale, through a call center, e-mail, or other channels. So that in the SOLOG business venture, it is necessary to build customer service, which accommodate criticism and suggestions form customers.

E. Revenue Streams

Revenue received by the company is from each market segment. Revenue streams are usually measured in terms of money the company receives from its customers. In the initial business model canvas, revenue streams of chicken sausage with analogue meat substitutes were obtained from direct selling and retail products to consumers.

F. Key Resources

Key resources (main resources) can be categorized into four, namely physical, intellectual, human, and financial (Osterwalder & Pigneur, 2012). In the SOLOG business venture, the implementation of key resources is in the form of raw material, production resources, technological resources, human resources and capital resources. Raw material resources include chicken meat, gluten, soy protein isolates, *anjasmoro* soy flour, *gembili* tuber flour, tapioca, and others food additives. Technology resources are the

science of process production and the equipment. Human resources needed include the production department, the research and development section and the marketing section. Capital resources are sources of funding that make it possible to carry out industrial activities. SOLOG business capital resources are obtained from personal capital and debt from banks.

G. Key Activities

The key activities is the main activity that must be mastered by the company to run a business. Like key resources, key activities are needed to create and offer value propositions, reach markets, maintain relationships with customer segments, and earn revenue. Key activities can be categorized by the production process, problem-solving, and network or platform (Osterwalder & Pigneur, 2012). The main activities of the business venture SOLOG are sausage production processes, product research and development, and promotional activities. Beside, the activity also include education activity about the benefits of analogue meat sausage chicken meat substitutes to the potential consumers to attract consumers.

H. Key Partners

Element key partners (partnerships) are the resources needed by the company to realize the value proposition, but not owned by the company. The intended partners in the business model are intermediaries' partners that have a role in turning the products or value into money.

Generally, there are four types of partnerships in a business to meet a certain conditions, namely strategic alliances between non-competitors, strategic partnerships between competitors, joint ventures to build new businesses and buyer-supplier relationships to guarantee reliable supplies (Osterwalder & Pigneur, 2012). In addition, company must also have three motivations in the building partnerships, namely optimization and economies of scale, reduction of risk and uncertainty, and

acquisition of particular resources and activities (Osterwalder & Pigneur, 2012). In the "SOLOG" business venture, business partners include distributors of raw materials and production support, that are:

- 1) Distributor of chicken meat
The chicken meat was obtained from suppliers located in Tanjung Market, Jember.
- 2) Distributor of gluten
Gluten was obtained from suppliers from various chemical firms in Jember
- 3) Distributor of soy protein isolates
Supplier of soy protein isolates obtained from PT Markaindo_Selaras located in Bogor.
- 4) Distributors of Anjasmoro Soybean Flour
Anjasmoro soybean flour suppliers are obtained from bean and tuber plant centres (Balitkabi) located in Banyuwangi Regency.
- 5) Distributor of *gembili* tuber flour
Gembili tuber flour obtained from the producer "Kusuka Ubiku" located in Bantul, Yogyakarta.
- 6) Distributor of packaging.

The Packaging was obtained from suppliers located in Jember Regency.

The other partner are:

- 7) Bank Rakyat Indonesia
Cooperation with Bank Rakyat Indonesia in the form of granting loans to SOLOG business.
- 8) Government

I. Cost Structure

The cost structure element is a part of the business model canvas element that explains the costs that arise when operating a "SOLOG" business model. In this study, cost analysis employs the full-costing method to calculate all cost components that exist in business operations. In this method, there are two main components, namely production costs and non-production costs. The production cost consists of variable costs and fixed costs. Non-production costs consist of investment costs and taxes.

In the initial stages of building a business model, a canvas business model was developed. The initial canvas business model can be seen in the **Figure 1**.

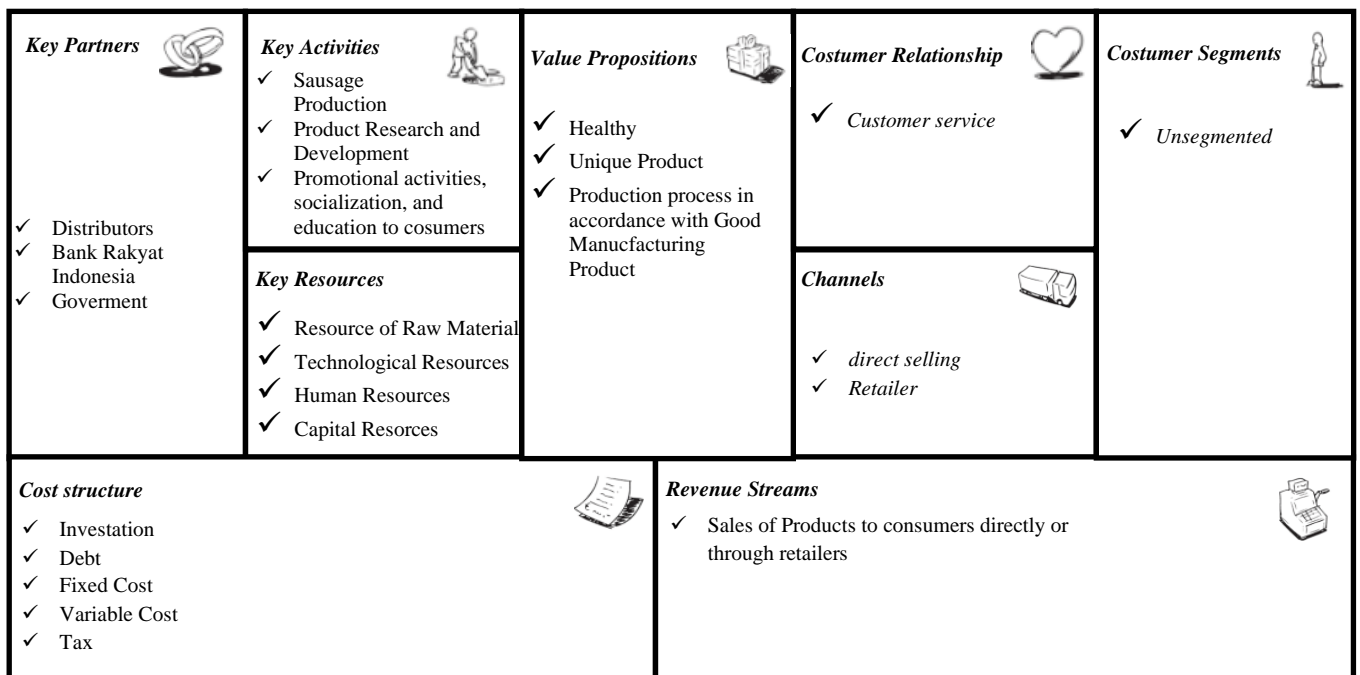


Figure 1. The initial stages of a business model

3.2 The Problem Test

The problem test was conducted by interviewing of 50 respondents. From the direct test through the interview process to the respondents, some information can be identified. This stage aimed to identify the issues that were being faced by the community related to healthy food/snack, and sausage products in the market. The results of the problem identification were solution that offered from the “SOLOG” product. There are three main elements of the business model to be tested in this test, namely:

- 1) Value Propositions (Natural)
- 2) Customer Segments (Unsegmented)
- 3) Channels (direct selling, retailer selling, online selling).

The results of the problem test by using questionnaire toward respondents can be seen in the **Figure 2**. Survey results showed that 100% of respondents had consumed sausages. Only 6% of respondents had ever consumed SOLOG. Furthermore, 76% of respondents were interested in trying to consume SOLOG and 64% were interested in buying the product. Nearly half of the respondents consume this product as a snack and all respondents reasoned they were interested in buying this

product because it was healthy and innovative.

Regarding market place to buy the products, 70% of respondents were willing to buy SOLOG at school and 84% of respondents were also willing to buy SOLOG in sausage agents and street vendors fried or grilled sausages. As many as 72% of respondents also wish to buy SOLOG at an online shop.

The result obtained from the test problems leads researchers to update the initial business model (hypothesis), especially, in the component value proposition that needs to be added with healthy and innovative attribute, in the channels components that needs to be replaced with schools, frozen sausage agents, fried or grilled sausage street vendors. In addition, the channel element need to accommodate the wishes of respondents about online purchasing. The producers can utilize social media such as Facebook, Instagram, and WhatsApp to promote and sell the product. However, the customer segment components were still unsegmented because business verification had not been done directly. Changing in the business model canvas can be seen in the **Figure 3**.

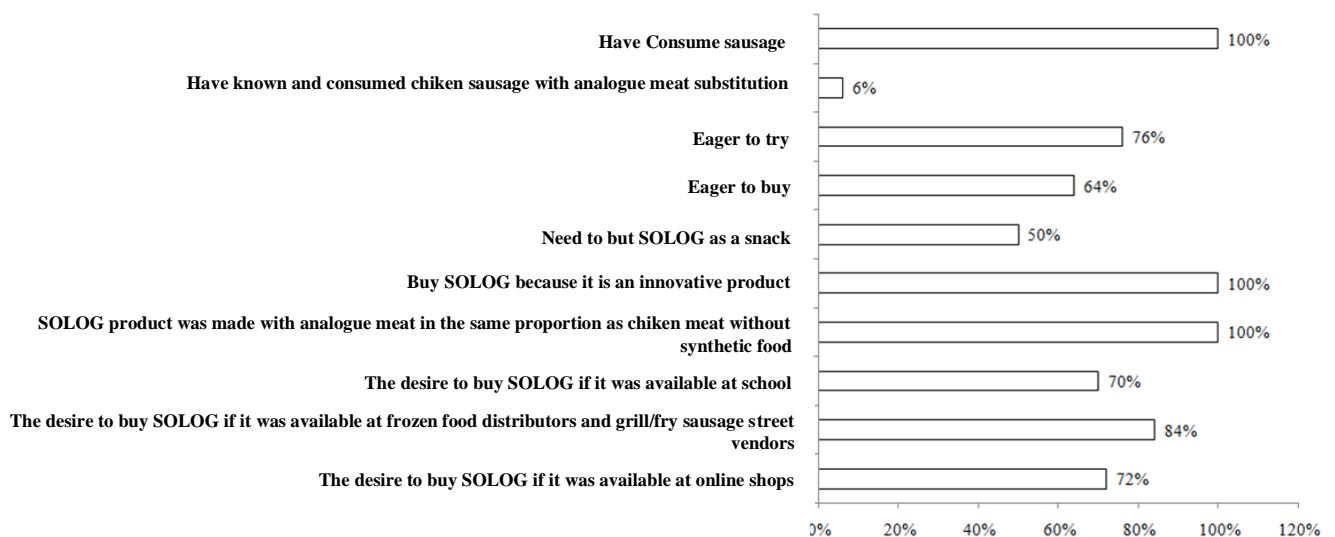


Figure 2. The results of the problem questionnaire test

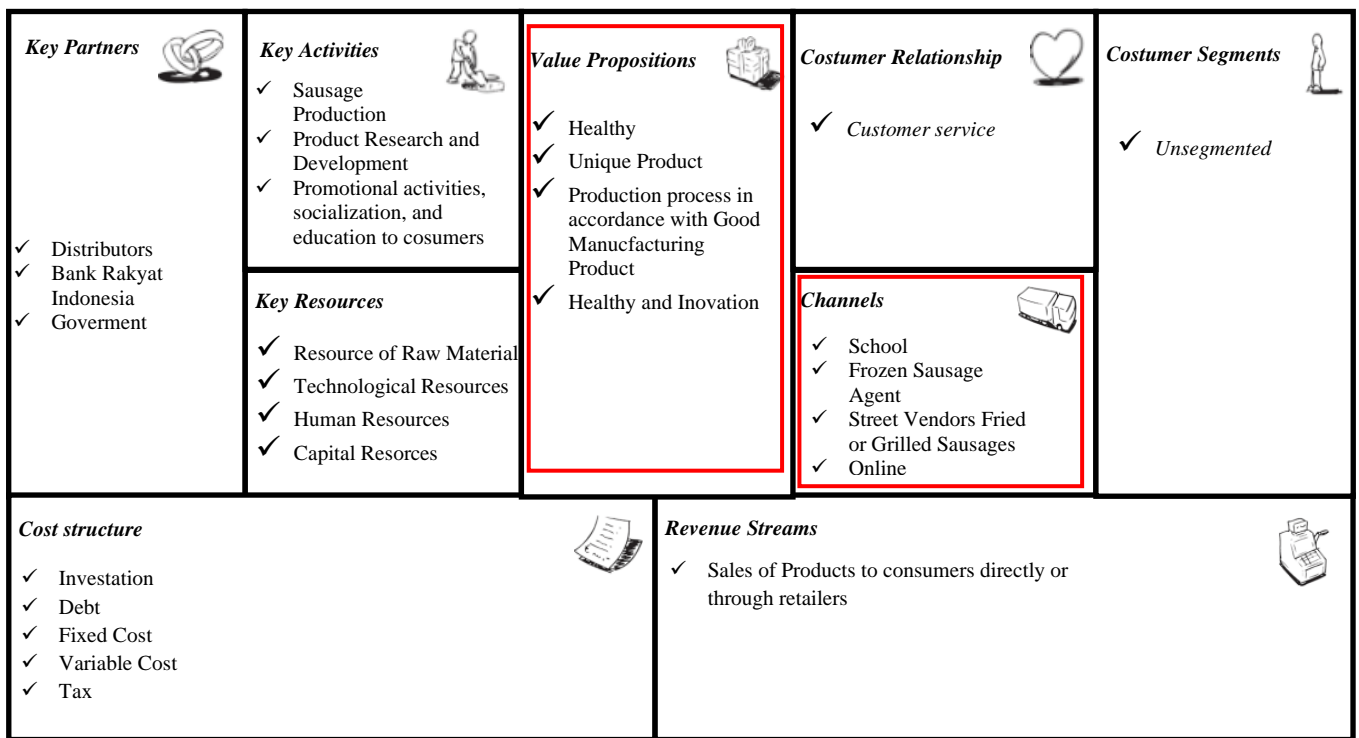


Figure 3 First stage of the business model canvas

3.3 Test the Solution

Solution testing was carried out by interviewing the same respondents in the problem testing. The test solution was intended to answer the problem and to identify the consumers' desire based on the results of the problem test. The results of

the solution test by using questionnaire can be seen in **Figure 4**.

The targeted market segment was indeed interested if there were an healthy and an innovative product. Furthermore, SOLOG was tested on respondents so that it could be re-verified on the interview's results.

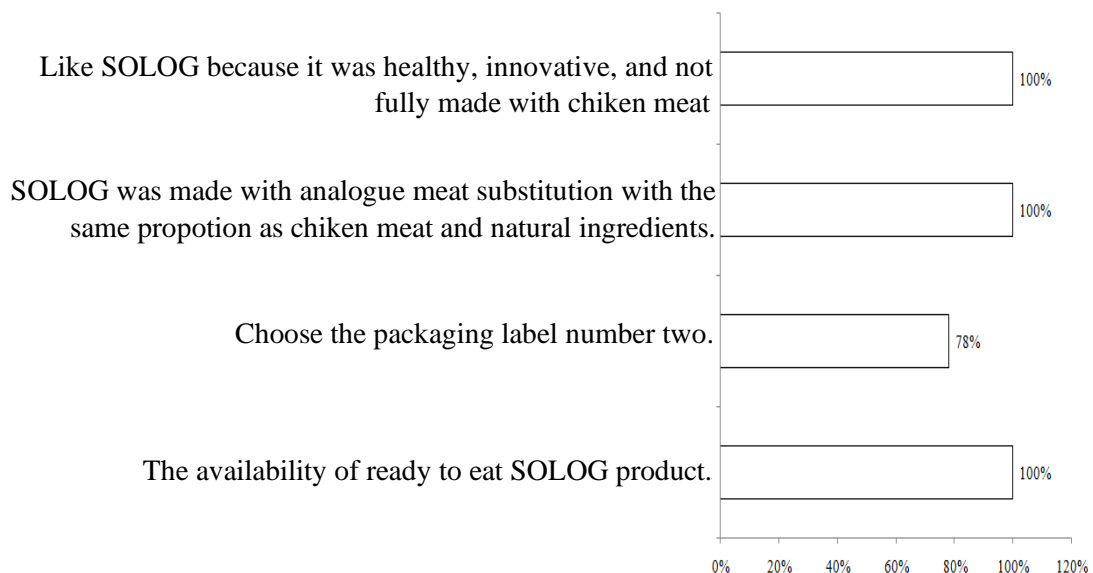


Figure 4. The results of the solution test questionnaire

The results of the interview are as follows:

- (a) All of respondents liked SOLOG because it was healthy and innovative. Beside it wasn't use 100% chicken meat as raw material.
- (b) All of respondents liked the value of SOLOG because it was made from analogue meat substitutes that came from natural ingredients and has free artificial food additives.
- (c) Respondents also like SOLOG because the analogue meat replace chicken meat in the same amount as raw material.
- (d) Some respondents want the existence of chicken sausage products with analogue meat substitutes that can be ready to eat without cooked.

As many as 78% of respondents preferred the second choice of the three alternatives provided by researchers. The majority of respondents liked the second design choice because it was attractive, it matched the product's color and it was bright.

Based on the results of the solution test, the business model canvas component of value proposition was improved, that are "SOLOG" must be ready to eat. Meanwhile other components of the problem test on the initial business model canvas were still

maintained. The complete changes of the second business model canvas can be seen in the **Figure 5**.

3.4 Verification of Business Model

Business model verification was done based on the results of the problem test and solution test. Verification was continued with preparing the final business model canvas or the third one. At this stage, the business model was verified by trying to sell SOLOG products to the market directly and through retailers. The direct selling included physical selling directly form the seller to consumers, online selling, and cash on delivery selling. The kinds of retailers/sellers included schools' canteens, distributors of frozen food, and street vendors of fried or grilled sausages. Selling product was conducted for approximately one month at the end of March to the end of April. For one-month, chicken sausages with analogue meat substitution were sold of 200-250gr packages. This activity was carried out in the neighborhoods of Summersari, Kaliwates, and Patrang. Based on sales data from one-month, it was known that as much as 15% of sales were sold directly, while as

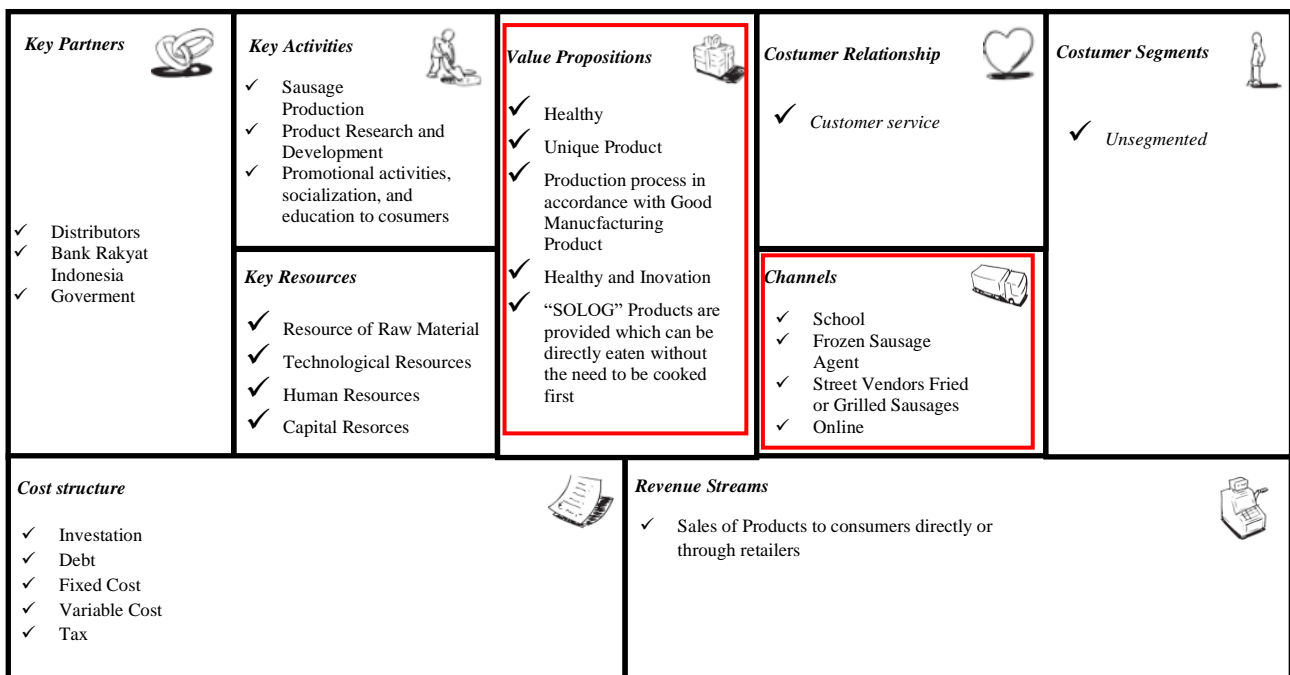


Figure 5. The second business model

much as 35% of sales were sold retail. Retail sales were further divided into two, namely distributors of frozen sausages and street vendors of grilled or fried sausages. Half the total sales of SOLOG product was from school's canteens.

Based on data from business verification results, the business model needs to be improved. In the revenue stream component, the business activity were obtained from direct sales, school canteens, street vendors fried sausages and grilled sausages and frozen sausage agents. The sales results in the school's canteens was the best sales result because snacks are an inseparable part of school lives (Suhardjo, 1989). Next, the customer segment components, which were originally unsegmented, were changed to the Jember area of the sub-districts of Summersari, Kaliwates and Patrang. Consumers were adults, men, women, and school-age children. At this stage, there was a change in the business model canvas with more detailed explanation was presented in **Figure 6**.

CONCLUSION

The compilation of a business model canvas for SOLOG was done by carrying out a series of stages, which were the problem test phase, the solution test and the business model verification. A series of test stages made changes the business model canvas for 3 (three) times. The change in the third business model was used as a reference of SOLOG business activities. In the last business model, it was found in the value proposition component that it was necessary to reduce the use of chicken meat. Consumers preferred a healthy and innovative ready-to-eat products. The school's canteens are the most suitable place to sell the product, along with other places such as frozen sausage agents, fried or grilled sausage street vendors, and online shops. Based on the data verification, the business model needs to be improved. In the revenue stream component, the improvements was made by adding direct sales, such as schools' canteens, street vendors fried sausages and

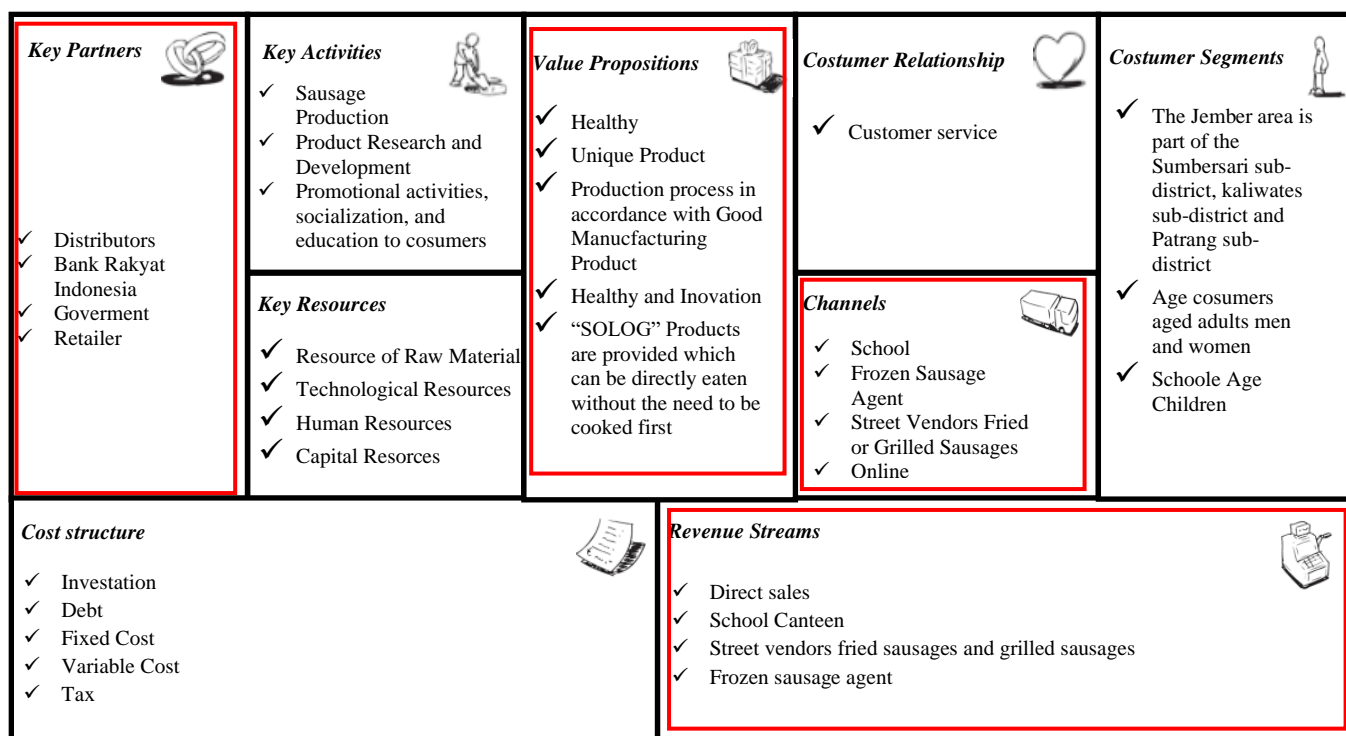


Figure 6. The final business model canvas

grilled sausages and frozen sausage agents. Furthermore, the customer segment component which was originally unsegmented was changed to the Jember area of the sub-districts of Sumbersari, Kaliwates, and Patrang. Age of consumers were adults of men, women, and school-aged children.

RECOMMENDATION

Further research can be done by developing business model using SWOT analysis when this business is no longer a start-up. So that, the product arise based on broader market demand and came at competition in the similar product businesses.

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