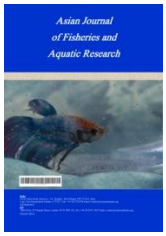

Asian Journal of Fisheries and Aquatic Research

18(5): 36-44, 2022; Article no.AJFAR.90184
ISSN: 2582-3760

Application of Business Model Canvas (BMC) in the Fish Processing Unit of CV. Brightfood Riung Gunung, Bandung City

Asep Agus Handaka Suryana [a*], Nabila Beestari [a] and Ine Maulina [a]

[a] Department of Fisheries, Faculty of Fisheries and Marine Science, Universitas Padjadjaran, Indonesia.

Authors' contributions

This work was carried out in collaboration among all authors. Author AAHS designed the study, performed the statistical analysis, wrote the protocol, and wrote the first draft of the manuscript. Author NB managed the analyses of the study. Author IM managed the literature searches. All authors read and approved the final manuscript.

Article Information

DOI: 10.9734/AJFAR/2022/v18i530455

Open Peer Review History:
This journal follows the Advanced Open Peer Review policy. Identity of the Reviewers, Editor(s) and additional Reviewers, peer review comments, different versions of the manuscript, comments of the editors, etc are available here: https://www.sdiarticle5.com/review-history/90184

Original Research Article

Received 28 May 2022
Accepted 02 August 2022
Published 09 August 2022

ABSTRACT

Fish is one of the foods that are favored and consumed by the community. However, fish is a perishable food commodity that requires processing in order to minimize this problem. The fish processing unit of CV. Brightfood Riung Gunung is a small-scale fish processing unit that produces various kinds of processed products using tuna (Thunnus sp) and mackerel (Scomberomorus sp). Tuna and mackerel are fish commodities that easily found many markets business so carry out processing activities using these fish. The data analysis used a business model canvas. The application of business models in the early stages of business management development makes it clear what business managers can do about what will be done with the business to be carried out. This study aims to analyze the business model canvas on the fish processing unit of CV Brightfood Riung Gunung Bandung City. This study uses case study method, which is a study that includes an assessment that aims to provide a detailed description of the background, nature and character of a case. In other words, a case study focuses attention, intensive in one case and detailed. The sampling technique used a purposive sampling. The purposive sampling method is a sampling technique with certain considerations. The selected sample of this study is the owner of the

**Corresponding author: Email: nabila18031@mail.unpad.ac.id;*

company. The results of this study indicate that the fish processing unit of CV. Brightfood Riung Gunung, Bandung City, has implemented 9 elements of the business model canvas well compared to other similar industries.

Keywords: Business Model Canvas (BMC); fish; company; tuna; mackerel.

1. INTRODUCTION

In Indonesia, there are many fishery product processing industries, one of which is the fish processing industry. Fish is very beneficial for the development of the human body. Fish are very easy to find in Indonesia because almost 70% of Indonesia's area is water. Several types of fish are also one of the export fishery commodities that are able to compete with other commodities in generating foreign exchange for the country [1]. However, fish is a commodity that quickly decays. Spoilage is caused by enzymes, both from the fish itself and by microbes and the process of rancidity. The high water content of fresh fish accelerates the proliferation process of spoilage microorganisms contained in it. The durability of fresh fish is not long, an obstacle in the expansion of marketing of fishery products. In fact, it often causes big losses when fish production is abundant. Therefore, for a long time, the community has tried to carry out various kinds of post-harvest processing of fish in order to minimize these obstacles [2].

Culinary tourism is indeed one of the main attractions of the city of Bandung. The variety of culinary products offered by the distinctive city of Bandung is able to provide a new adventure for tourists [3]. It is undeniable that this city has the opportunity to become a center for processed food business, one of which comes from processed fish. Culinary businesses that use fish usually include fresh fish which are directly processed and then consumed, as well as fish that are transformed into other products so that consumers are interested. Fresh fish and fish in the form of processed products can be processed in various ways to produce new and interesting products.

One of the fish processing units that produce various kinds of processed fish products is CV. Brightfood Riung Gunung, which located on Bandung City, West Java, Indonesia. The fish processing unit of CV. Brightfood Riung Gunung produces various processed fish products with raw materials of tuna and mackerel. Both types of fish are processed in such a way as to produce attractive processed fish products with affordable prices. The resulting product is Meatballs, Nugget, Sausage, Fish cake, Shredded, and Tofu. The fish processing unit of CV. Brightfood Riung Gunung serves processed fish products in the form of frozen foods so that they are practical when you want to consumed and can make the shelf life of processed fish last longer.

The number of fish processing unit in Bandung creates increasingly tough and tight competition, so that every company is always required to develop. Every company is sometimes faced with the need to make changes quickly and dramatically to deal with a changing environment [4]. One of the ways used by companies or business actors to be able to compete and develop is to create new strategies. However, the strategy itself is not enough, the company must have a strong and good business model that is right for its own company. Application of the canvas business model at the fish processing unit of CV. Brightfood Riung Gunung is expected to describe the business management that will be carried out in the future.

2. LITERATURE REVIEW

Fish meat is an ingredient that can be processed into various food products such as sausages, meatballs and nuggets [5]. Fish meat can be made into surimi which can then be used as raw material for various processed products [6]. Fish meat can also be added to other products such as chips [7], donuts [8], biscuits, bread [9] and so on, which aims, among other things, to meet nutrition, especially protein, diverse people's tastes so that there are alternatives. In presenting new menus and increasing acceptance rates without compromising the quality of the final product. Efforts to diversify processed fish products are prioritized on products that are commonly consumed by the public so that the chances of the product being accepted and marketed will be greater.

Tuna (Thunnus sp) is one of the potential marine fish that is the mainstay of Indonesia. Tuna is a popular fish because of its delicious meat taste and high nutritional value. Based on the results

of the proximate analysis of tuna meat, it was found that tuna meat had the highest water content then protein content. The water content of tuna meat is 56.43% [10], and the protein of tuna meat is 23.2% [11]. The high nutritional content of tuna is very good for processing diversification so that it can be consumed by all people.

Mackerel (*Scomberomorus* sp) is a pelagic fish and is economically important in Indonesia and even the world because of its high protein content and good for growth. The results of the proximate analysis of Mackerel have a water content of 76.5%, protein 21.4%, fat 0.56%, carbohydrates 0.61% and ash content 0.93% [12]. Fish nutrition can change if it is not processed properly [13]. Mackerel is one type of fish that is much liked by the community. The characteristics of this fish are white and thick flesh. It does not contain many spines, has a high enough actin and myosin content so that the resulting processed texture will be good. In addition, this type of fish is also widely found in the market and the price is relatively cheap [14]. Mackerel is a large pelagic fish and can be used for several fishery products processing.

The business model approach is one of the critical factors for the success of an organization. The business model approach must be innovative so that the organization is able to survive in the midst of the rapidly changing business environment [15]. The business model will help understand, explain and predict what activities should be carried out in order to generate profits for the company or organization. A business model is an abstract representation of how the company makes money, what the company can offer to consumers, to whom the company will offer its products and how to do it. The business strategy carried out by the business world must be based on the results of the analysis and formulate an appropriate business model so that it can run optimally [16].

Business model canvas (BMC) has advantages in business model analysis, namely being able to describe in a simple and comprehensive manner the current condition of a company based on consumer segments, value offered, value offering paths, customer relationships, revenue streams, vital assets, cooperation partners, as well as its cost structure [17]. Analysis through this model will see the business in outline but every element related to the business will look complete and detailed [18]. Thus, the results can see the full picture that can help answer questions about business [19].

3. METHODOLOGY

This study was conducted from January to July 2022. The study location is in the fish processing unit of CV. Brightfood Riung Gunung, Bandung City, West Java, Indonesia. This study uses case study method, which is a study that includes an assessment that aims to provide a detailed description of the background, nature and character of a case, in other words a case study focuses attention, intensive in one case and detailed [20]. In this study, sampling was done through the purposive sampling method. The purposive sampling method is a sampling technique with certain considerations [21]. The selected sample is the owner of the company. This method was chosen to test respondents who can provide the information needed in the study problem.

3.1 Data Analysis

3.1.1 Business Model Canvas (BMC)

Business model canvas is a method of thinking that describes how an organization captures, designs and delivers value. The business model canvas explains it simply through visualization which consists of 9 building blocks arranged into a single unit [22]. The 9 building blocks in the Business Model Canvas are:

3.1.1.1 Customers segment

Consumers are the core of a business model that can provide benefits (profits) for the company. Companies can group customers into different segments with common needs, common behaviors, or other attributes.

3.1.1.2 Value proposition

Value Proposition is a wide range of products and services that will create value for certain consumer segments. Value is the reason why consumers choose the products and services of a company over other companies because the company is considered to have advantages in solving problems and meeting consumer needs.

3.1.1.3 Channels

Channels are a medium for companies to communicate with consumers to convey value propositions.

3.1.1.4 Customer relationship

Customer Relationship explains about maintaining the relationship between companies and consumers. The company must explain the type of relationship that each consumer segment wants to build.

3.1.1.5 Revenue stream

Revenue stream is the income or income received by the company from consumers for the value proposition provided by the company to consumers.

3.1.1.6 Key resources

Key Resources describe the most important assets needed to make a business model work. Every business model requires key resources. These key resources enable companies to create and offer value propositions, reach markets, maintain customer relationships, and generate revenue.

3.1.1.7 Key activities

Key Activities describe the most important things a company must do to make its business model work.

3.1.1.8 Key partnership

Key partnerships describe the network of suppliers and partners that make the business model work. Companies enter into partnerships for a variety of reasons, and partnerships are the cornerstone of many business models. Firms create alliances to optimize their business models, reduce risk, or acquire resources.

3.1.1.9 Cost structure

The cost structure describes the most important costs incurred while operating in a particular business model. Creating and delivering value, maintaining customer relationships, and generating revenue all come at a cost.

4. RESULTS AND DISCUSSION

Results and discussion of the Business Model Canvas from the fish processing unit of CV. Brightfood Riung Gunung are as follows:

4.1 Customer Segment

The customer segment targeted by the fish processing unit of CV. Brightfood Riung Gunung refers to women aged 25 – 45 years who live in the city of Bandung. The owner believes that women with this age group prefer practical food because it can save time. Frozen food was originally created and intended for someone who is too busy, unwilling or unable to prepare food for himself [23].

4.2 Value Proposition

Value proposition or the value offered by the fish processing unit of CV. Brightfood Riung Gunung to consumers include the following:

a) Practical when you want to be consumed
b) The product has a delicious taste
c) Hygienic by applying the GMP (Good Manufacturing Practice) system
d) Nutritious by using quality ingredients
e) Long-lasting product shelf life
f) Can be used as souvenirs typical of Bandung

Value is the reason why customers choose products and services from a company compared to other companies because the company is considered to have advantages in solving problems and meeting consumer needs [24].

4.3 Channels

Channels or communication channels carried out by the fish processing unit of CV. Brightfood Riung Gunung in reaching consumers is through direct selling, retailers, and indirect selling. Direct selling is carried out by presenting products in a separate place or what is commonly called the office next to their private house, so that consumers can be more comfortable in the buying process. This business also implements a retailer function by having many partners spread across several regions. Meanwhile, indirect selling is done with digital media which aims to provide every information needed by consumers. The digital media used are Instagram, Facebook, WhatsApp, and databases. Furthermore, to strengthen the delivery of information properly, digital media is also utilized by CV. Brightfood Riung Gunung to interact with potential customers. Therefore, at the same time, consumers will get what they need before buying products from CV. Brightfood Riung Gunung.

Compared to other similar industries, CV. Brightfood Riung Gunung already has a good channel in running its business to reach consumers. Other competitors usually in

communicating with consumers only use one function, namely the indirect selling function, where the communication channel with consumers is only through online. Even though the channel is very important because it can help increase consumer awareness, make it easier for consumers to judge, help consumers buy products and make it easier for companies to deliver products to consumers [19].

4.4 Customer Relationship

The fish processing unit of CV. Brightfood Riung Gunung always strives to maintain good relations with consumers. The goal is to make a positive impression on all consumers so that they can enjoy the products offered. In addition, CV. Brightfood Riung Gunung usually holds promos held at the beginning of the month, at the end of the month, regular promos for partners, giveaways and also broadcast tips about the importance of fish consumption. This is done with the aim of getting new customers and retaining old customers.

4.5 Revenue Stream

Revenue stream or source of income obtained by fish processing unit of CV. Brightfood Riung Gunung main thing is through profit sales. In addition, income is also obtained through shipping costs, banners for partners, and being a speaker in a webinar about Small and Medium Enterprises (SMEs).

This source of income is what keeps a company alive.

4.6 Key Resources

Key resources in the fish processing unit of CV. Brightfood Riung Gunung is divided into two whics is human resources and physical resources. Currently, the number of employees is 12 people consisting of 6 office employees and 6 kitchen employees with the following organizational structure.

According to the owner, work experience is considered important for every prospective worker who wants to work in his place. However, the owner also continues to accept prospective workers starting from high school graduation who will later be trained first. For kitchen/production employees, the owner prefers women aged 30-40 years because they are considered more experienced. The age of the workforce is the productive age for each individual. Age for workers between 20 to 40 years is considered very productive for workers because if the age is below 20 years, the average individual still does not have sufficient skill maturity but is also still in the educational process. Meanwhile, at the age of over 40 years, there is a decline in physical abilities for individuals [25].

For each employee in the office and kitchen, a job description or main job has been determined. However, in accordance with company's mission, the owner makes the jobdesc of the employees flexible so that each employee can help each other when needed. Meanwhile, physical resources are divided into two which is facilities and infrastructure.

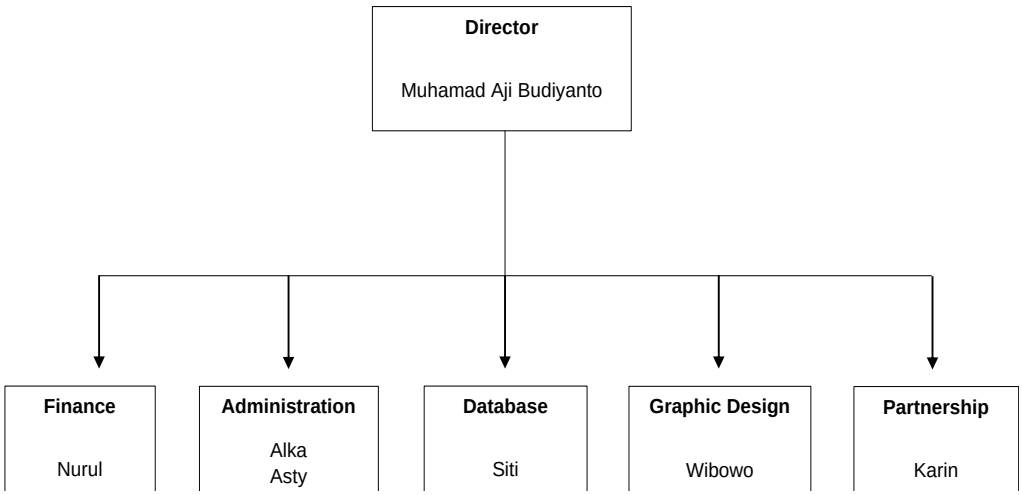

Fig. 1. Organizational structure of CV. Brightfood Riung Gunung

Table 1. Physical resources in CV. Brightfood Riung Gunung

Facilities	Infrastructure
- 1 Laptop	Building
- 2 Computer	Production Kitchen
- 6 Freezer	Courier motorbike
- 5 Gas stove	
- 3 Grinding machine	
- 4 Kneading machine	
- 3 Chopping machine	
- 3 Vacuum sealer	

The condition of processing fishery products in Indonesia is still mostly done traditionally, even though the fishing industry is a fairly large industry and if handled seriously and modernly, it will be able to reach a wide market [26]. Processing conditions and poor worker hygiene as well as other types of hazards always threaten consumers if fishery products are handled and processed without paying attention to the principles of good processing and sanitation. Fish processing unit of CV. Brightfood Riung Gunung already has adequate facilities and infrastructure. Activities carried out in the office ranging from communication, administration, distribution to databases are well managed using available laptops and computers so as to facilitate business activities. The machines used in production activities are also considered adequate because the use of machines in production activities has been able to create a value proposition that wants to offer to consumers.

After a survey was conducted to other similar industries, the results showed that there were still many businesses that had limited facilities and infrastructure. Many businesses whose production kitchens are still integrated with private homes, limited production machines, and communication that is carried out only using personal cellphones.

4.7 Key Activities

Key activities or main activities carried out by the fish processing unit of CV. Brightfood Riung Gunung includes activities for selecting raw materials, production activities and distribution activities.

- Raw Material Selection Activities

The main raw materials in this fish processing unit use types of mackerel and tuna. While the raw material for this type of packaging uses PE plastic.

- Production Activities

CV. Brightfood Riung Gunung usually produces 16 times a month with an output of 200 packages in one production.

- Distribution Activities

After completion of production, the main activity that is no less important is the distribution process, where the distribution flow system at CV. Brightfood Riung Gunung can be done in two ways, namely partners/customers can come to buy products directly or can be delivered by couriers that have been provided by the business.

These three activities are the most important things to create a value proposition for the CV fish processing unit. Brightfood Riung Gunung. Key Activities describe the most important things a company must do to make its business model work [22].

4.8 Key Partners

Cooperation run by the fish processing unit of CV. Brightfood Riung Gunung is with suppliers and distribution partners. The selected fish suppliers came from two areas, namely the Bandung Trade Mall market and the Astana Anyar market. Then the supplier of the type of packaging was chosen from the April Bottle packaging store and the Indometal packaging store located in Bandung Regency. Distribution partners are divided into two, namely agents and resellers spread across West Java. Until now, it is known that CV. Brightfood Riung Gunung has 30 agents and 150 resellers. It is possible that the number of partners will continue to grow over time.

Key partners are a business cooperation agreement that is initiated voluntarily between two or more parties to complete a particular project. This collaboration is carried out with the aim of generating cost savings, reducing risks and obtaining resources that are not owned by the company [4].

4.9 Cost Structure

Costs incurred by the fish processing unit of CV. Brightfood Riung Gunung is divided into three,

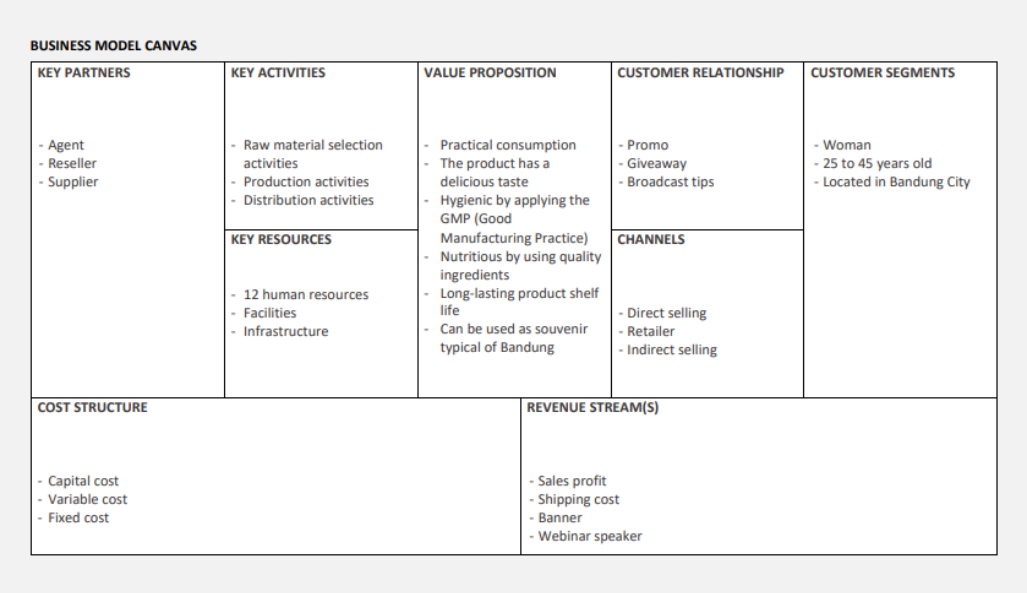

Fig. 2. Business Model Canvas in CV. Brigtfood Riung Gunung

namely investment costs, fixed costs and variable costs.

a) Investment costs incurred by CV. Brightfood Riung Gunung was originally around 5 million rupiah because at that time the owner was only running his own business.
b) Fixed costs incurred by CV. Brightfood Riung Gunung, namely employee salaries of 20 million rupiah per month, electricity of 1.5 million per month and taxes of 4 million rupiah per year.
c) Variable costs incurred by CV. Brightfood Riung Gunung usually spends 50 million rupiah per month for production purposes.

The cost structure describes all costs that arise as a result of operating this business model. All efforts to realize the value proposition, through the right channels, key resources, and reliable key activities, all cost money. The cost structure is influenced by the chosen company strategy, whether it prioritizes low costs or prioritizes special benefits [19].

5. CONCLUSION

The fish processing unit of CV. Brightfood Riung Gunung, Bandung City, applies the nine elements of the business model canvas quite well with the following explanation:

a) Customer segment is women aged 25-45 years who live in the city of Bandung.
b) The proportion of value offered is practical consumed, the product has a delicious taste, is hygienic by applying the GMP (Good Manufacturing Practice) system, is nutritious using quality ingredients, has a long shelf life, and can be used as souvenirs typical of Bandung.
c) Channels of communication with consumers using direct selling, retailers and indirect selling.
d) How to maintain relationships with consumers is done by making promos, giveaways, and broadcast tips.
e) Sources of income are obtained through sales profits, shipping costs, banners for partners, as well as being a speaker in a webinar.
f) Key resources are 12 employees and adequate infrastructure.
g) Main activities include raw material selection, production activities, and distribution activities.
h) Cooperation with two fish suppliers, two packaging suppliers, 30 agents, and 150 resellers.
i) The costs incurred include investment costs, fixed costs and variable costs.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Serosero RH, Djamhur M. Utilization of Tuna as Siomay to Increase Family Income. Journal of Devoting Masters in Science Education. 2021;4(4):2–7.
2. Renate D, Anggraini D. Processing Technology of Processed Fish Products in Pondok Table Village, Mestong District, Muaro Jambi Regency. Journal of Community Service. 2021;5:86–90.
3. Rukma DFS, Narulita MD. Image Bandung Culinary Travel Destination as Seen From The Perception of Tourists to The City of Bandung. Journal of Economic Discourse. 2018;17(2):126–138.
4. Wardhanie AP, Kumalawati D. Analysis of the Business Model Canvas in the Library of the STIKOM Surabaya Institute of Business and Informatics in Improving the Quality of Higher Education. Periodic Journal of Library and Information Science. 2018;14(2):124.
5. Hadiwiyoto S. Fishery Products Processing Technology. Yogyakarta: Liberty;1993.
6. Rostini I. Utilization of Red Snapper Filet Waste as Surimi Raw Material for Fishery Products. Journal of Aquatics. 2013; 4(2):141-148.
7. Kurniawati N, Junianto, Rostini I. Utilization of Fish Meat from Cirata Reservoir as a Supplementation to Cassava Kecimpring and Its Shelf Life in Various Packaging Conditions. College Excellence Research Annual Report. Jatinangor: Padjadjaran University; 2015.
8. Wijaya FP. Fortification of Surimi Manyung Protein on Donut Preference Level. Thesis. Faculty of Fisheries and Marine Science. Jatinangor: Padjadjaran University; 2015.
9. Djafar, MJ. Application of Fish Protein Concentrate in the Manufacturing of High Protein Food Products. Final Report of Production System Science and Technology Capacity Building Incentive Program. Agency for the Assessment and Application of Technology. Jakarta; 2003.
10. Wellyalina A, Aisman F. The effect of comparison of tuna and cornstarch on the quality of nuggets. Journal of Food Technology Applications. 2013;2(1):9-17.
11. Wahyuni S. Histamine Tuna (Thunnus sp.) and identification of the bacteria that form it at standard storage temperature conditions. [Thesis]. Bogor: Fishery Products Technology IPB; 2011.
12. BBPMHP. Surimi Processing Technology and Fish Jelly Products. Fishery Product Quality Control and Testing Center. Jakarta; 2005.
13. Nugroho A, Swastawati F, Anggo AD. Effect of Binder and Frying Time on Product Quality of Dragon Legs Mackerel Fish (Scomberomorus sp). Journal of Fishery Products Processing and Biotechnology. 2014;3(4):140-149.
14. Riyadi NH, Atmaka W. Diversification and Characterization of the Taste of Mackerel Fish Meatballs (Scomberomus Commerson) with the Addition of Coconut Shell Liquid Smoke. Journal of Agricultural Products Technology. 2010;3(1):1-11.
15. Sylvia V, Sitio S. Application of a Business Model Using a Business Model Canvas Approach in Small and Medium Industries (Case study in QUE QOE IKM in Kelurahan Tengah, East Jakarta). M-Progress Scientific Journal. 2015;7(1):48–57.
16. Nielsen C, Lund M. The Concept of Business Model Scalability. SSRN Electronic Journal;2015.
17. Rainaldo M, Wibawa BM, Rahmawati Y. Analysis of the business model canvas on ride-sharing online service operators (A case study of Uber in Indonesia). ITS Journal of Science and Arts. 2017;6(2):235-239.
18. Pratami NWCA, Wijaya P. Application of the Canvas Business Model in Determining Business Management Plans for Document Delivery Services in Denpasar. Journal of Systems and Informatics. 2016;11:77–85.
19. Fitriani R, Sultan MA. The Canvas Business Model as an Innovation Solution for Small Businesses. Journal of Management and Business Science. 2019;10(2):197–203.
20. Nursalam. Nursing Research Methodology Practical Approach. 4th ed. Jakarta: Salemba Medika; 2016.
21. Sugiyono. Qualitative Quantitative Research Methods and R&D. Bandung: Alphabeta; 2008.
22. Osterwalder A, Pigneur Y. Business Model Generation. John Wiley & Sons, Inc: Hoboken, New Jersey; 2010.
23. Lovell R. Product Attributrs and Consumer's Re-purchase Decision on Frozen Ready to Eat Meals: a Study on Consumers in Selected Hypermarkets in Bangkok. Bangkok; 2011.

24. Devi, LTS. Increasing Marketing Productivity Of Mpok Atiek MSME Catering With Business Model Canvas Approach And SWOT Analysis. Journal of Dinamika Teknik. 2019;11(2):44–53.
25. Yasin M, Priyono J. Analysis of Age, Salary and Dependents on Home Production of the Shoe Industry in Sidoarjo (Case Study in Krian District). Journal of Economics and Business. 2016;1(1): 95-120.
26. Pratama IR, Rostini I, Kurniawati N. Development of Processed Fishery Products on Traditional Scale Based on Standardized Procedures. Journal of Community Service. 2018;2(12):524–529.

Peer-review history:
The peer review history for this paper can be accessed here:
https://www.sdiarticle5.com/review-history/90184