

Business Model Development With Ghost Kitchen Concept: Pathway To Digital Transformation

Muhammad Adam Sudaryanto¹

{muhammad.adam@ecampus.ut.ac.id¹}

Universitas Terbuka, Indonesia¹

Abstract. Entrepreneurship continues to develop along with the times and is one of the pillars of the Indonesian economy. The culinary business is very promising and has great opportunities in Indonesia. The Ghost Kitchen concept has a big chance to develop in Indonesia. The outbreak of the pandemic has made it more convenient for people to order food online. Implementing effective digital transformation strategies is crucial for modernizing and growing a culinary business in today's competitive market. Starting a culinary business with the Ghost Kitchen concept doesn't require a lot of money, so it's easy to implement. The methodology for this study was qualitative. Through surveys and interviews, data was gathered. The format of the interview questions is determined by the Business Model Canvas. When creating survey questions, the empathy map serves as a guide. The survey respondents consisted of thirty customers and were selected by the purposive sampling method (non-probability sampling). Qualitative content analysis techniques were employed in this study to analyze qualitative data. The study was carried out for a year in 2022. Based on the responses to the questionnaire, most consumers expressed interest in purchasing a culinary business that used the Ghost Kitchen concept. Consumers think the idea is creative, useful, and cost-effective, and their opinions are good.

Keywords: Entrepreneurship, Business Model Development, Culinary Business, Ghost Kitchen, Digital Transformation

1 Introduction

The Ghost Kitchen concept has a big chance to develop in Indonesia. The outbreak of the pandemic has made it more convenient for people to order food online. Starting a culinary business with the Ghost Kitchen concept doesn't require a lot of money, so it's easy to implement [6]. The Ghost Kitchen concept can cut costs in culinary businesses and reach more consumers. This concept can be used for the development of the newest profitable culinary business [5] Thus, it is hoped that the Ghost Kitchen Concept can be applied to Chan's culinary business to develop the business.

The development of Chan's culinary business model using the Ghost Kitchen concept is expected to provide solutions so that it can continue to survive during the COVID-19 pandemic. The renewal of this concept is also expected to inspire many culinary businesses in Indonesia. In this development, an analysis of the external and internal environment of Chan's culinary business was carried out so that various existing aspects could be considered. Financial projections will also be prepared to provide an overview regarding the feasibility of Chan's culinary business development plan using the Ghost Kitchen concept. This research aims to design the development of a new business model that is appropriate for Chan's culinary business using the Ghost Kitchen concept.

2 Literature Review

The definition used in the development of this business model is the model stated by Osterwalder and Pigneur using the Business Model Canvas framework. The Business Model Canvas can comprehensively describe how organizations create, distribute, and capture value propositions [7]. Business models provide various benefits for companies such as, (1) shortening the time for writing plans; (2) increase the focus of the company; (3) business planning becomes more structured; (4) reduce the risk of business planning errors (Haryanto, 2021).

Online food delivery sales have experienced 52% growth and the restaurant industry has seen an emerging trend of the Ghost Kitchen concept being optimized for delivery [1]. Ghost Kitchen, also known as virtual restaurants or cloud kitchen, is a food business that specifically sells on a delivery basis without a physical storefront or place to eat [11]. The emergence of Ghost Kitchen during the COVID-19 pandemic was part of the restaurant industry's response to the skyrocketing demand for off-site orders and online food delivery by third parties [8]. The business process of the Ghost Kitchen concept can be seen in Figure 1.

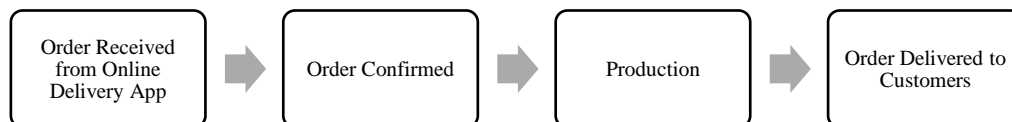


Fig. 1. Ghost Kitchen Business Process

According to [2] the Ghost Kitchen concept is a new trend that is developing in various countries, because it doesn't need to be located in a prime location, but can be located almost anywhere and also with lower rental costs. This is also in line with the opinion of [10] that restaurant owners benefit from the new Ghost Kitchen concept significantly by reducing labor costs and indirect costs. Ghost Kitchen is a kitchen or food business that only serves orders via delivery and is owned by a certain business or a third party that manages several businesses [3].

3 Research Method

The research method used in developing Chan's culinary business model is qualitative and supported by quantitative data. Qualitative research methods are used to describe and translate the meanings that exist in phenomena in the social world. The goal to be achieved using this method is to understand more deeply the interpretation, understanding, and motivation of a person [9]. In this study, qualitative methods are used to explore customer behavior and are used as a source in designing the development of new business models. The data sources used were obtained from the opinions of consumers and culinary business actors. The qualitative research used combines interviews with questionnaire data collection.

4 Result and Discussions

Chan's Current Culinary Business Model

Based on the results of the analysis of the Business Model Canvas component, an overview of Chan's culinary business model can be compiled in Figure 2. The business model was compiled based on an interview with Chan's culinary business manager on November 3, 2022.

Key Partners - Raw material supplier - Go-Food	Key Activities - Production - Marketing	Value Propositions - Halal - Fresh	Customer Relationships - Service - Social Media	Customer Segments - Student - College Student - Office Worker - Family
	Key Resources - Store - Employee - Recipe - Financial		Channels - Store - Go Food - Instagram	
Cost Structure - Fixed Costs (Store rent, salaries, operations) - Variable Cost (Raw Material)			Revenue Stream - Sales of culinary products (food and beverages)	

Fig. 2. Chan's Current Culinary Business Model
 Source: Processed by the Author 2022

Empathy Map

Based on the results of the questionnaires that have been distributed, an empathy map can be compiled to find out various things from customers as listed in Table 1.

Table 1. Empathy Maps

See	Hear
Customer views on the Ghost Kitchen concept. <ol style="list-style-type: none"> 1. Innovative 2. Practical 3. Economical 4. Difficult 	What customers have heard about the Ghost Kitchen concept. <ol style="list-style-type: none"> 1. Innovative 2. There is a postage fee 3. Cheap 4. Many menu variants
Think	Pain
What customers think about the Ghost Kitchen concept. <ol style="list-style-type: none"> 1. Simple 2. Faster 3. Cheaper 4. Lots of promos 5. Lots of variety 	The thing that customers worry about when buying culinary with the Ghost Kitchen concept. <ol style="list-style-type: none"> 1. Long delivery 2. Food served cold 3. Expensive product prices 4. Promotion is not appropriate
Do	Gain
What customers do if they are satisfied with buying culinary delights with the Ghost Kitchen concept. <ol style="list-style-type: none"> 1. Make a repurchase 2. Recommend to friends 3. Uploading on social media What customers do if they feel dissatisfied with buying culinary delights with the Ghost Kitchen concept. <ol style="list-style-type: none"> 1. Do not repurchase 2. Make a complaint 3. Do not recommend to friends 4. Giving negative reviews on social media 	What customers want when buying culinary with the Ghost Kitchen concept. <ol style="list-style-type: none"> 1. Fast service 2. Good quality of food and drink 3. Affordable prices 4. Available on all online food ordering services What customers want from a business <ol style="list-style-type: none"> 1. Promotion 2. Affordable shipping costs 3. Discount

Market Validation

Based on the results of the questionnaire that has been distributed, almost all respondents are interested in buying products from Chan culinary who apply the Ghost Kitchen concept. A total of 28 (93.3%) respondents were interested and 2 (6.7%) were not interested. This shows that the development of a business model with the Ghost Kitchen concept can be well received by customers and has the potential to succeed. There are various things into consideration that influence customers to buy culinary with the Ghost Kitchen concept. 18 (60%) of respondents were influenced by location, 13 (43.3%) were influenced by other people's reviews, 12 (40%) of respondents were influenced by price and 9 (30%) of respondents were

influenced by the choice of product variants. It can be seen that location is an important thing that influences customers to buy.

Business Model Development

Based on the results of the analysis of the Chan's Business Model Canvas components, competitors and empathy maps, an overview of the development of the Chan Culinary business model can be compiled in Figure 3.

Table 2. Chan's Business Model Development

Key Partners	Key Activities	Value Propositions	Customer Relationships	Customer Segments
<ul style="list-style-type: none"> - Raw material supplier - Go-Food - GrabFood - Shopee Food - Maxim 	<ul style="list-style-type: none"> - Production - Marketing - Delivery 	<ul style="list-style-type: none"> - Halal - Fresh - Fast - Affordable Price 	<ul style="list-style-type: none"> - Service - Social Media 	<ul style="list-style-type: none"> - Student - College Student - Office Worker - Family
	Key Resources <ul style="list-style-type: none"> - Store - Employee - Recipe - Financial - Brand 		Channels <ul style="list-style-type: none"> - House or Kiosk - Store - Go Food - Instagram - GrabFood - Shopee Food - Maxim - Own Delivery 	
Cost Structure <ul style="list-style-type: none"> - Fixed Costs (House or kiosk rent, salaries, operations) - Variable Cost (Raw Material) - Motorcycle Purchase (Delivery) 		Revenue Stream <ul style="list-style-type: none"> - Sales of culinary products (food and beverages) 		

Remarks : Black color is old business model

Blue color is the addition of a new business model

5 Conclusions

The following is a research conclusion based on the analysis that was conducted out in the previous section. The development of Chan's culinary business model with the Ghost Kitchen concept was success by analyzing Chan's business model and empathy maps. Business model development is carried out on the components of value proposition, customer relations, channels, key resources, key activities, key partners, and cost structure. Based on the results of the questionnaire that has been distributed, almost all respondents are interested in buying products from Chan culinary who apply the Ghost Kitchen concept. A total of 28 (93.3%) respondents were interested and 2 (6.7%) were not interested. This shows that the development of a business model with the Ghost Kitchen concept can be well received by customers. What

customers want when buying culinary with the Ghost Kitchen concept, namely: fast service, good quality food and drinks, affordable prices, and available in all online food ordering services.

Ghost kitchens offer significant benefits for culinary businesses in Indonesia. By eliminating the need for a physical dining space, these kitchens reduce overhead costs associated with rent, utilities, and staffing. This cost efficiency allows businesses to focus on quality and innovation in their food offerings. Moreover, ghost kitchens can quickly adapt to changing market demands, enabling entrepreneurs to test and launch new concepts without the risk of a full-scale restaurant investment. In a country with a rapidly growing online food delivery market, ghost kitchens provide an effective way for culinary businesses to reach a broader audience, especially in urban areas where digital platforms are increasingly popular. This model also allows for greater flexibility in location, as kitchens can be strategically placed in areas with high delivery demand, further optimizing operational efficiency and customer reach. Ghost kitchens are revolutionizing the culinary business in Indonesia by driving digital transformation across the industry. By operating without a physical dining space, these virtual kitchens significantly reduce overhead costs, allowing businesses to invest in digital tools and platforms that enhance customer experience and operational efficiency.

References

- [1] Christopher. Available in What is a ghost kitchen? Here's everything you need to know. : <https://www.galleysolutions.com/post/what-is-a-ghost-kitchen-master-guide-2020> (2020)
- [2] Davis, C., & Davis, E. *Managerial Accounting*. New Jersey: Wiley. (2019)
- [3] Euromonitor International. *What Are Ghost Kitchens and Virtual Restaurants?* Available in Euromonitor International: <https://www.euromonitor.com/article/what-are-ghost-kitchens-and-virtual-restaurants> (2019)
- [4] Haryanto, A. *Business Model Canvas : Pengertian, Tujuan dan Manfaatnya*. Available in Jojonomic: <https://www.jojonomic.com/blog/business-model-canvas/> (2021)
- [5] Katadata. *Mengenal Ghost Kitchen, Jenis Bisnis Kuliner Online Terbaru*. Available in Katadata: <https://katadata.co.id/agung/ekonopedia/6322df537210d/mengenal-ghost-kitchen-jenis-bisnis-kuliner-online-terbaru> (2022)
- [6] Kompas. *2021 Bisnis Makanan Berkonsep Cloud Kitchen Masih Berpeluang Besar*. Available in Kompas: <https://money.kompas.com/read/2021/01/20/140054726/2021-bisnis-makanan-berkonsep-cloud-kitchen-masih-berpeluang-besar> (2021)
- [7] Osterwalder, A., & Pigneur, Y. *Business Model Generation*. Dalam *Business Model Generation*. New Jersey: John Wiley & Sons. (2010)
- [8] Rivera. Online delivery provider (ODP) services: who is getting what from food. *Int. J. Hosp. Manag.* (2019)
- [9] Schindler, P. *Business Research Methods*. Dalam P. S. Schindler, *Business Research Methods* (Page. 124). New York: McGraw-Hill. (2019)
- [10] Sebes. Available in Ghost kitchens: Their rise and why they're here to stay. FSR Magazine.: <https://www.fsrmagazine.com/expert-takes/ghost-kitchens-their-rise-and-why-theyre-here-stay> (2019)
- [11] Volpe. Available in Ultimate guide to ghost kitchens in 2020 for a post COVID-19 world: <https://9fold.me/ultimate-guide-to-ghost-kitchens-in-2020-for-a-post-covid-19-world/> (2020)