Ghost Kitchen Concept: An Alternative Culinary Business Method with a Minimum Space

Toddy Hendrawan Yupardhi

Department of Interior Design, Institut Seni Indonesia Denpasar, 80225, Indonesia
hendrawanyupardhi@isi-dps.ac.id

Abstract. Ghost kitchen is one of the culinary entrepreneurs' creative efforts to survive, adapt and revive in the post-Covid-19 pandemic. This culinary business has a place to produce food but doesn't need a place for visitors to consume its products. This concept is then increasingly popular with the presence of online-based delivery service providers such as Go-food, Grab-Food, Shopee Food, and several similar online services. This research aims to study the ghost kitchen phenomenon, which does not require ample space but can still operate from a human and built-environment point of view. The method used is a qualitative method with a phenomenological approach. The research results show that a ghost kitchen is an option because of the ease of opening a business with small capital, employee efficiency, lower risk, a new style of business spirit, and the support of online-based delivery services via smartphones. The Ghost Kitchen concept does not require ample space or specific interior design to attract visitors. They promoted social media using product photos and testimonials to attract attention. This concept has implications for the emergence of home-based culinary businesses and interior design for kitchen arrangement.

Keywords: Kitchen, Culinary, Business, Online, Spatial, Built-Environment

1   Introduction

The concept of a conventional culinary business during the Covid-19 pandemic has changed since the activities and mobility of people and goods were restricted. This condo has caused many culinary businesses to decrease their turnover, go bankrupt and even close their businesses. One of the adaptation patterns then carried out by culinary activists is to popularize the concept of Ghost Kitchen or Cloud Kitchen, which according to Cai et al. [1], is a culinary business concept in the form of a food production place (kitchen) without a dining room supported by online delivery facilities. This type of culinary business is a familiar thing. However, according to Talamini et al. [2], this concept has become increasingly popular during the Covid- 19 pandemic with the existence of third parties as online-based delivery service providers. Simply put, this culinary business only has a place to produce food, a waiting room for delivery service drivers, and other supporting facilities such as a product photo room or management room. However, it does not have a place for visitors to consume its products on the spot.

During the epidemic, the use of the ghost kitchen concept has grown. Technology advancement is one of the reasons that promote the growth of ghost kitchens [3]. Because it does not require physical aspects like opulent buildings, supporting facilities for dining in a comfortable place, and even who cooks the food not need to be known, the culinary business, both those that are just starting and those that already have a big name, can compete on an equal footing. Based on a report from Researchmarket, Ruhulessin [4] predicts that the global ghost kitchen market will expand by about 12 percent annually. This implies that by 2028, the ghost kitchen sector might surpass the 2000 trillion-dollar barrier. The ghost kitchen idea is becoming more and more popular around the globe and is regarded as one of the most excellent pandemic adaptation strategies for the food industry.

Previous research by Festivalia and Swantari [5] resulted in what steps need to be considered to start implementing the ghost kitchen concept and its implications. Another research by Kulshreshtha and Sharma [6] found this concept expanded to other cities due to various conveniences such as the low cost of starting a business, minimal costs of providing restaurant facilities, and the requirement for a compact area. Since 2018, the Ghost Kitchen phenomenon in Indonesia has been growing. According to Rohman from Katadata.co.id, Grab introduced their first ghost kitchen model, known as Grabkitchen, in that year. A year later, under the name Dapur Bersama GoFood, Gojek introduced the ghost kitchen concept. Everplate, Kita Kitchen, Telepot, and Eatsii are further ghost kitchen operators that have started to appear and compete in Indonesia [7]. According to Safira & Chikaraishi's research, the majority of online restaurants in Jakarta are located in the urban and suburban areas of the city [8], highlighting the fact that the ghost kitchen idea caters to the middle class.

The positives and cons of the ghost kitchen notion are undoubtedly interrelated. This idea still has a long way to go before it reaches all spheres of society because many people do not recognize and comprehend it. This study aims to understand how the ghost kitchen concept is used by its users based on their experiences and points of view, from the brand's (tenant) perspective as well as that of the consumer and the product's delivery party (online motorcycle taxi) from the perspective of people and their built environments.

2   Methods

This research is a type of qualitative research presented descriptively. The phenomenological approach is used in this study to obtain in-depth information about the experiences of the actors directly involved in the phenomenon of this ghost kitchen concept. According to Suyanto [9], the phenomenological approach focuses on revealing the meaning of a concept or phenomenon of experience experienced by individuals. The steps taken in conducting the research were: locating case studies and research informants; doing field observations; conducting interviews and documenting the results; and processing the data. The open interview questions were used to obtain information and data in addition to observation, documentation, and literature study methods. The research instrument used a draft note of interview

questions, stationery, a voice recorder, and photo documentation using a Redmi Note 11 smartphone.

The author conducts open interviews with informants who can convey the information needed because they also experience the phenomena that occur following what is stated by Creswell [10]. The primary data sources in this study are 16 tenant representatives at the ghost kitchen concept restaurant, 20 online ordering consumers, and 24 people from online motorcycle taxis with the cluster sampling selection method from two ghost kitchen locations in Jakarta. According to Darmadi et al. [11], cluster sampling is a sample selection method that takes several sample groups with the same characteristics in a population, not done subjectively but randomly without arrangement from the researcher.

3   Result and Discussion

The results of the author's data collection through interviews, observations, and documentation methods show that in 2021 and 2022, many culinary businesses began to use the ghost kitchen concept, indicated by an increase in the number of tenants in the two survey locations. This is an effort to adapt culinary business actors to the conditions of the Covid-19 pandemic, who still want to survive or expand their business penetration in other areas with less capital. This concept also attracts new culinary business actors numbered 43% of the total sample studied. Social media and electronic media are effective information carriers to introduce the ghost kitchen concept to culinary business people (68%) and information from fellow culinary business professionals (32%). The primary factors for applying this concept include the simplicity of beginning a business, the space that has been supplied, needing few operational facilities, less staff, and the aid of tenants by operators for promotion, documentation, and commercial dialogues. As per tenant experience, the tremendous impact is that tenants can concentrate more on working on orders because there is no direct interruption in the form of "pressure" from clients waiting for their orders to be processed by gestures or verbal communication. Most tenants (75%) also stated that they were satisfied with the facilities and the amount of space provided by the operator. However, there are several shortcomings experienced by tenants, including being very dependent on the operator, where the performance of tenant services is also influenced by how the operator's service performance. The almost non-existent direct interaction and communication between the brand (tenant) and its consumers and the popularity of the ghost kitchen concept that has not been comprehensive in all circles so that not all people can access it, especially those unfamiliar with the use of technology applications. Higher product prices due to the involvement of other parties and slower order processing, especially during certain hours such as lunch and dinner due to the buildup of online orders.

This culinary concept also has benefits and drawbacks, according to in-depth conversations with customers who use ghost kitchen services. 65% of the sample's customers were unaware that the restaurant they had ordered from utilized the ghost kitchen concept. They are only familiar with the tenant's name and menus; they are unaware of the operational concept. 35% of the customers knew what the term "ghost kitchen" meant, indicating that although the idea has been around for a while, few

people are familiar with it. The entire sample (100%) said that this concept makes it easier for consumers to order without visiting the restaurant location because they can order through an application on a smartphone. It is also easier to make their choices since the menu, visual appearance, and prices are listed on the application. In addition to saving time, it also helps reduce congestion at certain hours. It was also agreed that this concept is suitable for millennials in the age range of 15-40 years who are fluent in the use of gadgets and have a strong desire for consumption, and is suitable for implementation in big cities such as Jakarta and others. However, users of ghost kitchen services also point out several drawbacks, including more prolonged waiting times (85%), higher costs (50%), frequent discrepancies between the content of the food ordered and the visual appearance of the application (35%), and no memory of the impression of a restaurant that can be obtained in traditional restaurants (75%).

The results of in-depth interviews with delivery service parties (online motorcycle taxis) show that most online motorcycle taxis (87.5%) who are research informants did not know what the ghost kitchen concept meant. However, all informants (100%) realize that the difference between conventional restaurants and ghost kitchen concept restaurants lies in the absence of a place to eat on-site for consumers and an ordering system that only uses an application on a smartphone. The advantages obtained by online motorcycle taxis include many merchants in one building, which makes it easier to wait for orders with high sustainability. However, the perceived disadvantage is that online motorcycle taxis are sometimes the first party to receive customer complaints because of lengthy wait times or order mismatches. According to some informants (50%), the waiting area is ineffective since it does not focus on comfort factors like sitting facilities or environmental cleanliness.

According to the research's findings, a built environment that incorporates the idea of a ghost kitchen, also known as a cloud kitchen, offers a variety of new experiences to its diverse users. One concept that works well during and after a pandemic is the idea of a restaurant without a dining area and relying on delivery services for assistance. Although this idea is not entirely new, it has not yet gained the same popularity as traditional eateries. The built environment is created through collaboration between operators, tenants, and online delivery providers in a ghost kitchen system.

Various opinions about the ghost kitchen concept have emerged related to the actors' personal experiences. Positive values arise from this concept related to its ability to adapt during the pandemic and afterwards, the various conveniences and effectiveness felt and experienced by both culinary businesses and consumers and delivery services, as well as the broad impact of helping to improve the post-pandemic economy. Applicatively, ghost kitchens are considered to have the potential to grow in the future, following technological developments and the needs of urban communities that are fast-paced and instant. The shortcomings that have been highlighted include the loss of direct interaction between the brand and its consumers, higher product prices, frequent differences in orders that arrive with the visuals offered on the application and waiting times for order processing that are often too long. The physical absence of consumers in the restaurant means that consumers have no recorded memories of the place. The ghost kitchen concept restaurant does not obtain interactive service from the waiter or comfortable seating facilities, enjoying the view while chatting with family or friends. The absence of direct interaction also

causes no "pressure" from consumers, so sometimes tenants do not need to do work in a hurry. Efforts to strengthen product branding are carried out through various social media platforms by displaying the best possible product visuals and fast and responsive service through the application. The suitability of the order with the visual display on the application is also an essential consideration for the restaurant's reputation. Consumer trust in the visualization of the menu in the application should be fulfilled by providing the same product. Space arrangement is also a concern, especially since the workspace required by tenants should be from 4 to 20 square meters or more and provided in several sizes according to tenant needs. The waiting room for delivery services should also receive attention in terms of comfort and cleanliness because the average waiting time for one order can reach 20 to 60 minutes (based on the results of in-depth interviews and observations on google reviews).

Based on the experiences gained by ghost kitchen service users, various efforts can be considered to improve service quality, considering that this concept has many positive sides. Improvements in terms of speed of order processing while still focusing on product quality, compatibility of order display with product visuals on the application, provision of a better waiting room, and more massive information distribution to reach more social class segmentations of society while increasing the popularity of the ghost kitchen concept. Further research can be conducted to determine how to increase the work effectiveness on the ghost kitchen concept and methods to increase the popularity of this concept to enter a broader segment of society.

4   Conclusion

Ghost Kitchen as a built environment is one of the adaptive products during the pandemic in the culinary business world. Based on the research findings, its popularity is still on par with conventional restaurants, and service users are still limited to certain circles. Many parties are involved in implementing this ghost kitchen concept and have different experiences. This research aims to know how the ghost kitchen concept used by its users based on their experiences and points of view especially human-built environment. From this research, it was found that direct social interaction between sellers and consumers did not occur in this place. In contrast to what typically happens in traditional restaurants, the merchants are not overly "pressured" by the presence of customers. The product quality from the time the order is processed to the final appearance of the product is part of the communication for the seller in providing quality assurance to consumers. The operator's involvement as a service provider and the online delivery service as a supporter of the ghost kitchen also plays an essential role in the overall quality of the service provided. In general, the amount of space and supporting facilities provided are adequate. However, there is a need to improve the waiting room service for online delivery services because the waiting time is quite long.

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