

# EVOLVING RESTAURANTS' BUSINESS MODELS: BENEFITS OF CLOUD KITCHEN

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## ABSTRACT

*This case study will discover the concept of cloud kitchen in terms of business model, advantages, and disadvantages and how they operate their business with three different concepts, and we present Kitopi story as case study of a pioneer in cloud kitchen operation. However, we considered the differences between cloud restaurants and regular restaurants in order to discover -from theoretical view- how can these two different operating ideas combine together and make a unique business model 'the ubiquitous kitchen'. At the end we present the future of food brands, and how the communications and social media will affect this industry. We concluded our research by adding some recommendations for entrepreneurs who own reputable traditional restaurants and would like to develop and maintain their position in the market.*

**Keywords:** Restaurants, Business Model, Cloud Kitchen, Food.

## INTRODUCTION

Cloud kitchen or virtual restaurant is rented area utilized to make food, particularly for online ordering and delivery. It is different from a traditional restaurant delivery in several ways. As start they don't have a location for dine-in or takeaway can contain one kitchen or a group of food brands that share the same rented location, and they don't need waitress and frontal staff. Only chefs and someone responsible for packing the orders. Usually, virtual restaurants are technology empowerment facilities, and they are delivery-oriented working with third-party receiving orders online. Also known as dark kitchens, they are restaurants that serve food to customers but only through delivery, meaning that these restaurants do not have places for customers to sit and eat (Ali et al., 2004; Choudhary, 2019).

Cloud kitchens can be used to launch a completely new business or concept, but there are various types of cloud restaurant models. First; the shared area model, owner's use their staff and products, but the place and equipment are owned by a third party. The shared space could be use by a number of businesses, each one prepare food without bear the burden of operation costs. Second; a devoted space model, a space rented or owned for their use. It may include one or more different ideas in the same location, but they don't have other brands sharing the area with

them. Third; runs through established restaurant and allows the business to experiment new concepts with no heavy investment (Dixon et al., 2018; Doran, 2010).

### **Function**

Because they are a cloud service, they relied on modern communication technology and Internet, so we see that cloud kitchens provide their services from different meals and dishes through dedicated applications, which customers can download, order meals and pay online.

What distinguishes cloud kitchens in their work, is the development of delivery technology, while dozens of people daily click and choose the meal, cloud kitchens work with a distinctive technology that allows them to collect data, by filtering the types of foods requested by the residents of certain neighbourhoods, and the time it takes to reach those locations, and with the help of food delivery applications, the production and delivery of food becomes semi-automatic (Fridayani et al., 2021; Ginsberg, 2015).

## **LITERATURE REVIEW**

### **Cloud Kitchens**

A cloud restaurant operates a commercial kitchen by preparing food for delivery or takeaway only, without dine-in options. Cloud restaurants allow businesses to develop a restaurant or start a virtual brand with minimum cost. The idea provides restaurateurs with opportunity to expand, discover new markets, or test new concepts. Many restaurants use the cloud concept as an experimental area, improving staff and inventory while examining new ideas.

A group of different restaurants can serve their meals through the same kitchen, meaning that cloud kitchens have a shared kitchen, cooking crew and delivery crew, with other brands, and sometimes some brands choose to collaborate with their own chefs and workers.

The goal of creating cloud kitchens is to focus on food preparation, reduce labours, and help start-up entrepreneurs who want to open their restaurants to save capital, and start their business by working on an existing infrastructure (Karuneswaran, 2020).

### **Kitopi Story (Case Study)**

Cloud kitchen platform Kitopi announced that it has secured \$415 million in financing as part of investment round, and with the participation of a group of powerful investment funds.

The news that raised many questions among entrepreneurs, investors, and even ordinary customers; what are the cloud restaurants represented by the Kitopi platform? What is the reason for the turnout of investment funds and individual investors to this type of start-up? What is the reason behind the rise of these companies strongly in the world of startups specialized in food delivery?

When Kitopi was established in January 2018 in Dubai, hardly anyone was familiar with the concept of cloud kitchens. Now, cloud kitchens have become one of the fastest growing sectors in food sector, and Kitopi is leading the way with its 60 kitchens across Kuwait, Saudi Arabia and the United Arab Emirates.

Kitopi saw one of the biggest challenges for restaurants; it is the high cost of setting up the restaurant, which made expansion difficult. Therefore, no matter what food-delivery businesses were called, whether called cloud, dark, or ghost kitchens, they've been around to

enable entrepreneurs produce their food from one central location then deliver it either directly to customers or by third party (Hussain, 2021; John, 2021).

Kitopi's "*managed cloud kitchen*" model is not limited to providing space and facilities for these food brands, but rather they offer something like "*restaurant as a service*" model, where it is concerned with purchasing ingredients, providing chefs to cook the dishes, as well as delivering orders.

With the growth of online food delivery, cloud kitchens have started adapting technology into their services, inside Kitopi's kitchens are 'smart stations' that allow a single chef to cook dishes of many different brands. These stations are organized according to the type of food, so a sushi station can be assigned, and the chef of that station prepares sushi dishes only for the various brands that offer sushi on their menu.

The entire process is supposed to take 35 minutes from the moment the customer places the order on the applications until the order is delivered. In exchange for this service, Kitopi retains about 85% of the brand's revenue, and pays 10% to 13% in returns. Kitopi also allocates a monthly marketing budget to the restaurant or brand in order to keep orders going. The company started with a few small brands, and then began to have a larger scale of clients, now Kitopi works with 200 brands (Sjostrom et al., 2014).

## How do Cloud Kitchens Operate?

As we explained earlier, cloud kitchens work on the idea of sharing the infrastructure needed by any food brand to provide its services to customers, while cooperating with online food ordering, and home delivery companies. Meaning that they never deal with the customer directly, as they do not open their doors for customers, they receive orders online and send meals to customers' homes. Cloud Kitchens, similar to Kitopi, operate with 3 different business models:

### First model

It provides kitchens with all the necessary equipment, tools, technical and technological services, to receive orders and send food, in exchange for a monthly rent. There are other provider's added additional services to all of the above, such as providing chefs, workers, and other employees for those restaurants, helping restaurants to market themselves, and helping them with management matters as well.

### Second model

The previous model provides its services to already existing restaurants and brands, while the second model cooperates with virtual kitchens, meaning that one cloud kitchen includes dozens of brands that all come out of the same kitchen. For example, Sweetheart Kitchen, a start-up with more than 30 brands of its own, and the Jeetek Group, which offers its products under 20 different names, both companies serving their dishes under dozens of different brands, even though the kitchen is one and the chefs are the same. This model relies on having various brands run by a single cloud kitchen, with the aim of controlling the cost of food, purchases and flexibility in selling (Mohammed et al., 2022; Patawari & Bairwa, 2022).

### Third model

Includes all of the above, it provides restaurants with infrastructures ready to run business, equipped with all the necessary tools, material and technical services. In addition, they

are helping these restaurants create a brand, preparing menus, marketing their products, and giving them the technological systems required to receive customers' orders online. This model is the least prevalent of the three cloud restaurant business models (Sharma & Verma, 2021).

**Advantages of Cloud Restaurants**

1. Cloud kitchens like Kitopi Company enable entrepreneurs to start their project with a small capital. Setting up a regular restaurant costs minimum about 500,000 SR, but obtaining a private space in a cloud kitchen does not exceed its cost of 30,000 SR.
2. Cloud kitchens do not require their presence in attractive places suits the customers.
3. The average restaurant needs at least three months to set up, while entrepreneurs can start working directly in the cloud kitchens.
4. Cloud kitchens generate more revenue and profits than regular restaurants

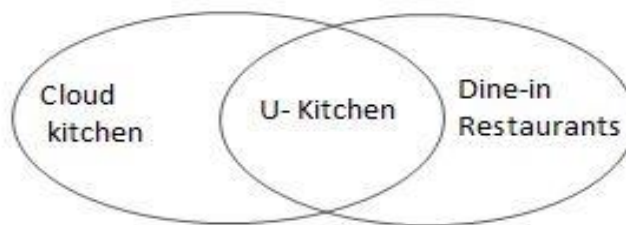
**Disadvantages of Cloud Restaurants**

1. Cloud kitchens are limited to delivery only, which may reduce confidence in the restaurant, because customers are not allowed to visit or see the restaurant.
2. Restaurants pay a percentage of their income and revenue to the provider of cloud kitchen.
3. Crowding in a cloud kitchen may provoke reticence about the cleanliness of meals.
4. Lack of face-to-face interaction with customers can lead to employees withdrawing from the customer experience and neglecting their complaints, which negatively affects the restaurant's rating and reputation.
5. If a restaurant does not have well-known traditional branches, it may face marketing difficulties related to convincing customers of the new model Table 1 (Upadhye & Sathe, 2020; Vaughan, 2022).

**Table 1**  
**COMPARING BETWEEN CLOUD RESTAURANTS AND REGULAR RESTAURANTS**

	<b>Regular Restaurants</b>	<b>Cloud Restaurants</b>
Cost	Expensive and requires capital	Affordable
Revenue	Generate good revenue and profits	Generate better revenue and profits
Staff	Required many skilled staff (chef, waitress, Manager, Cashier, janitor, etc)	Few staff (chef, someone to get the orders)
Operation	Need management and high operation procedures	They get support from the provider in management and operation
Branding	Medium (Ads & word of mouth)	High (Digital Promotion)

**Ubiquitous Kitchen**

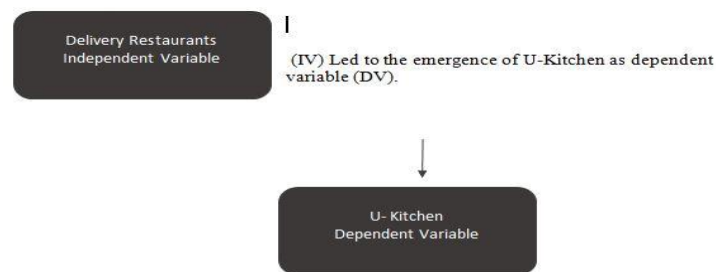


**FIGURE 1**  
**U-KITCHEN MODEL**

Ubiquitous computing is an idea that came from considering methods of using computing technologies in all activities conducted by people in their daily live. It created a new concept of

connecting offline with online Figure 1. It is a method that can be used in the idea of cloud kitchen by activating the physical restaurants with ubiquitous computing to make them part of cloud kitchens, without dispensing with their position in the market as a well-known restaurant, it's an agile business model to be align with world evolution. The combination of two working methods in one place makes you reach a larger and multiple segments of customers. Customers who want to receive their meal with a quick click can meet their needs, and customers who want to eat in a high-end restaurant outside the home can meet their needs as well. It is a model where traditional physical restaurant integrates with cloud kitchen model, in order to increase their customer base, so they offer the option of online delivery with the option of eating in the restaurant (Machdar & Andreas, 2022; Siio et al., 2007; Susilowati et al., 2021).

## Theoretical Part



**FIGURE 2**  
**VARIABLE INDICATIONS**

The research model has been proposed for the study in which the cloud restaurant model as independent variable Because of the limited research in this field, as this business model is new, no theories have been adopted Figure 2, but a research hypothesis has been developed.

## Hypothesis

*H<sub>1</sub>: U-kitchen is the direction that will be more profitable than cloud kitchens.*

The Hypothesis is clearly confirmed by the fact that there is a large part of customers who still prefer restaurants that offers a place to eat food, and the experience of visiting the restaurant and seeing the cleanliness gives you a sense of greater confidence in the brand, which is something that can't be overlooked. At the same time if this restaurant that customers trust develop a new online ordering way it will maintain their customer loyalty.

Theoretically and by reading all of the above, cloud restaurants can be a profitable trend for many entrepreneurs, but in reality it cannot replace or eliminate the importance of physical restaurants, and the combination of the two methods can have a positive impact on any business.

## The Future of Food Brands

This overall growth in food delivery reduced the need for consumers to actually interact with restaurants, and the brand became even more important. It is no longer the owner of the

restaurant who serves the food, but rather the brand that attracts customers and promotes the meals. And in the era of social media, these brands can be a restaurant, a chef, or an influencer. The food sector is now experiencing a trend that fashion and beauty sector saw a few years ago. Fashion and beauty influencers, who have a large following on social media, have leveraged their online fame and used their brand to launch their own clothing or beauty products. And now those influencers, in the food industry and beyond, are following the same path with the help of cloud kitchens.

## CONCLUSION

Today, many food businessmen and restaurant owners are turning to cloud kitchen service, as affordable alternative business solution, ideal to take advantage of the significant increase in demand for food delivery.

One of the main contributors to the popularity of cloud kitchens is the sharing; many brands can use the same infrastructure in cloud kitchen. A brand can rent out a cloud kitchen on a monthly basis, or on a usage basis; any brand can rent the kitchen at night if its business requirement, while another can rent the kitchen during the day.

Since the consumer is always trying to improve their lives, they will unthinkingly tend to get their meals quickly by delivery, so the cloud kitchen project can only be successful and popular with restaurants. Therefore, online food ordering market in the Middle East reached \$6 billion in 2019, and the market value is expected to rise to \$11.9 billion by 2026. It is worth noting that 60% of the profits of restaurants in the region come from digital orders, as Saudi Arabia ranks first in the list of Arab countries that adopt online food orders, followed by the United Arab Emirates in second place, in addition to the fact that the UAE is currently a centre for start-ups operating in cloud kitchens. All these factors indicate that the cloud kitchen industry will become more popular in the coming period, and many entrepreneurs and investors will head to this industry, and it will be more successful if they integrated with physical restaurants to adopt a model that includes both directions, which is U-Kitchens.

## RECOMMENDATIONS

As a team worked on this research, we believe that adopting the idea of cloud kitchen in issuing a new menu or a new production line, in a restaurant that has a reputation and well known as a traditional restaurant, can be more successful for them than starting from scratch in adopting a new business model like cloud. And cloud kitchen can be used as a concept of development and agility in a food business.

Well-established restaurants also cannot give up the idea of entering the cloud restaurant market and be satisfied with their reputations and market share, the failure to keep up with the development in the market may be the end of this business in the long run. But mixing the traditional with the modern can have wonderful results in the prosperity of the business.

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