



# THE GLOBAL GROWTH OF CLOUD KITCHENS: OPPORTUNITIES AND CHALLENGES

<sup>1</sup> Karthik.G, <sup>2</sup> Pugalenti.V, <sup>3</sup> Kanimozhi S, <sup>4</sup>H.M. Moyeenudin

<sup>1,3,4</sup> Assistant Professor School of Hotel &Catering Management, Vels Institute of Science, Technology and Advanced Studies, Pallavaram, Chennai, India.

<sup>2</sup> Student School of Hotel &Catering Management, Vels Institute of Science, Technology and Advanced Studies, Pallavaram, Chennai, India.

**Abstract :** The food service sector is presently undergoing a significant shift, with cloud kitchens, also referred to as ghost or dark kitchens, being at the forefront of this transition. Unlike conventional restaurants, cloud kitchens do not have dine-in options and instead function solely through digital platforms and online food delivery services. This paper will discuss the gradual transition from dine-in food service to delivery-based food service and the role of technology in this process. The article is about the link between cloud kitchens and third-party food delivery services like UberEats and Zomato. Even though these services offer cloud kitchens access to a wide customer base, the commission rates are quite high, and this can affect profitability. The article points out the increasing reliance of cloud kitchens on these services and the difficulties that arise. The results indicate that for cloud kitchens to remain competitive and sustainable, they need to shift their focus from being mere production facilities to engaging with customers directly. Even in a purely digital setting, it is important to establish a connection with customers. This study highlights the need for cloud kitchens to adopt a direct-to-consumer approach to improve their relationships with customers and make their business more sustainable.

**Keywords:** Cloud Kitchens, Dark Kitchens, Hyper-local Logistics, Direct-to-Consumer (D2C), Food Technology,

## I.INTRODUCTION

The restaurant industry has experienced a major transition from its conventional roots. In the past, success was directly associated with the actual dining experience. However, in today's world, visibility and success are increasingly dependent on the digital world, where the engagement of customers starts with a notification on their mobile phones rather than stepping into a restaurant. In today's food service industry, visibility is no longer dependent on a physical location but on being at the top of the search engine results. In today's world, it is very rare for a consumer to find restaurants by visiting the streets or the neighborhood. This is because the consumer's search for food, such as "best burger near me," is done on digital platforms. For cloud kitchens, it is very important to rank at the top of the search results in order to survive. If not, even the best kitchens may go unnoticed. This trend is exactly the same as that of the hotel industry. However, this thesis goes further than dependence on technology and the visibility of the platforms. It is concerned with an even more profound issue that cloud kitchens are confronted with the issue of balance between convenience and customer connection. Even though cloud kitchens have the advantage of lower costs in terms of rent, labor, and equipment, they do not have the direct, physical interaction with customers. This can be a problem because it may impair customer trust and loyalty.

## Literature Review

Review of the existing literature indicates that the earlier studies were conducted in the separate domains of technology and food service. However, the rise of cloud kitchens has made it difficult to distinguish between the two, as it has proven that technology and food service are interlinked. Cloud kitchens are a business model in which technology, data, and food are a single system.

Some studies compare the emergence of food delivery services with the effect of Online Travel Agencies (OTAs) on the hotel industry. Just as the emergence of OTAs has transformed the hotel industry, food delivery service providers such as Swiggy, Zomato, DoorDash, and Uber Eats have also changed the way people access food services. It has been found that although these services offer cloud kitchens instant market entry and awareness, they also charge high commissions. It has been reported that these commissions can go as high as 25-30 percent per order, thus reducing the profit margins of the kitchens that rely on these services. The rise of digital-exclusive food ventures has also sparked debates on ethical issues, especially with regard to issues of transparency and trust. As evident from existing literature, the issue of "virtual brand" duplication has been identified, whereby multiple brands are created by a single kitchen on the same food delivery platform. While this approach may enhance visibility