Searching for Optimal Locations for Cloud Kitchens in Mumbai

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Introduction

As a restaurant business owner, it's crucial to gauge how the pandemic has shifted consumer behaviour and their preferences towards food delivery versus dine-in.

The food delivery business got a shot in the arm during the government-imposed lockdowns. Apart from need fulfilment, the service also provided a sense of safety.

A report by Google and Boston Consulting Group estimated that the Indian food delivery market would reach $8 billion by 2022 [1].

The same report by Google and Boston Consulting Group also revealed another challenge for traditional restaurants: variety in cuisines (35 per cent) was one of the top reasons for recurrent use of online food ordering apps, other features like discounts and convenience comes later.

This means that a traditional restaurant is at a double disadvantage: managing increasing delivery costs and exploring multiple cuisines to stay popular in its area.

We can also safely assume that delivery executives shifting from the traditional model to this new 'gig' economy would seek some stability in monthly earnings. We can leverage this information to estimate the potential expense a food delivery business would typically incur for employing an delivery executive.

Recent developments like Zomato introducing a weekly 'minimum guarantee' payout corroborates our assumption. The new system is designed to ensure a minimum payment of INR 4,000-5,000 a week with a target of 60-65 hours a week [2].

Swiggy delivery executives in few metro cities in India had gone on strike in September'20 protesting against a 57% decrease in their per delivery payout and the removal of monthly incentives of INR 5,000 [2].

In Feb'21, Zomato increased its delivery executives' pay by 7-8% due to fuel prices touching INR 100 per litre. The company confirmed that a delivery executive travels about 100-120 km in a day and consumes 60-80 litres of fuel in a month, and the fuel price hike would result in monthly expenditures increasing by INR 600-800, which constitutes about 3% of their monthly income [3].

This places the average delivery executive's monthly income at around INR 25,000.

This can also be confirmed by viewing a job posting for such roles online.

We were lucky enough to find a listing of a restaurant business in Mumbai; the reason for the listing was rather griming: Covid-19.

It was a 3-year-old medium-sized restaurant, with about 30 employees. It registered sales of about INR 6-7 million and had an EBITA margin of 15%.

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The restaurant was valued at INR 2.5 million, with a 5-year lease and additional physical assets of INR 1.5 million. It had an average order volume of 2,500 per month with an average order value of INR 400, resulting in average monthly revenue of INR 1 million.

If they had 7-8 delivery executives, their monthly expenses would be greater than INR 200,000, which is 20% of the revenue, and this doesn't include delivery asset costs [4].

The restaurant did mention that they relied on few food delivery start-ups for their delivery service.

Owning a fleet of delivery executives implies having the added expense of managing and maintaining manpower and delivery assets, without having any certainty of minimum revenue during daily operations and nowadays most restaurants rely on partnerships with food delivery start-ups/delivery firms to meet their delivery needs. Food delivery start-ups typically charge a commission rate of about 22-25% on order value for their service; the rate has only been increasing over the years [5].

This results in a shift from a fixed cost delivery model to a variable cost delivery model for the restaurants. The trade-off is moving delivery assets off the books, removing any and all delivery-related operating expenses, and making profit margins of the business more inelastic to decrease in order volume.

With the food delivery market slowly maturing, incentives and salaries for delivery executives will begin to match and exceed previous market levels.

It seems like the right time to explore a new type of model: the cloud kitchen model.

Rather than wasting space on a dining area, in a cloud kitchen model all space is utilised to optimise food production and delivery. These kitchen host delivery-only food brands.

This allows a single kitchen space to host multiple brands, therefore multiple types of cuisines, and route all deliveries through this single location. The model also works if some of the kitchen space is rented to others for setting up their brand. This may cannibalise your market, but you do also receive a cut in every order [6][7].

Another crucial aspect of the cloud kitchen model is that the business can completely focus on optimising delivery by selecting the right location for the business operations. The pandemic has resulted in vacancies in commercial properties, potentially making it the right time for exploring and setting up new locations based on this model [8].

For many businesses optimising transportation, a great cost-cutting exercise, and the benefits are easy to realise. With the changing times, it appears that the food delivery business is going to grow further.

Through this project, I hope to provide relevant data points and insights for selecting the best locations for setting up a cloud kitchen that maximises the serviceable population while minimising the service time and provide recommendations for the type of cuisines to serve and explore. The project will conclude the minimum number of cloud kitchen's locations that a business would need to set up to service the maximum population of the geography within an acceptable time limit and provide a list of cuisine recommendations for each location. We shall also provide some comments on whether such a cloud kitchen should rely on food delivery start-ups for their delivery service or setup their own.

Links

1. https://www.livemint.com/technology/tech-news/indian-online-food-delivery-market-to-hit-8-bn-by-2022-report-11580214173293.html
2. https://inc42.com/buzz/zomato-new-compensation-model-gig-economy/
3. https://thelogicalindian.com/uplifting/zomato-increases-delivery-executives-pay-to-make-up-for-sky-rocketing-fuel-prices-27066
4. https://www.smergers.com/business/food-delivery-business-for-sale-in-mumbai-india/t0dru/
5. https://www.thehindubusinessline.com/companies/amazon-foods-reduced-commission-rate-may-hurt-swiggy-zomatos-growth/article34036997.
6. https://www.thefoodcorridor.com/2019/12/05/everything-you-need-to-know-about-cloud-kitchens-aka-ghost-kitchens-in-2020/
7. https://limetray.com/blog/cloud-kitchen-business-model/
8. https://www.cushmanwakefield.com/en/india/insights/mumbai-marketbeat
9. http://www.demographia.com/db-mumbaidistr91.htm
10. https://indiamapia.com/Mumbai/Mumbai.html
11. https://memumbai.com/wards/
12. https://en.wikipedia.org/wiki/List_of_neighbourhoods_in_Mumbai

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