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CLOUD KITCHENS IN INDIA: A RESEARCH PAPER

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ARTICLE INFO	ABSTRACT
	Aim: An analysis about cloud kitchens in India and also how they have changed recently due to the recent pandemic. **Background:** Cloud Kitchens are a growing disruptive model that a lot of young entrepreneurs can tap into in recent times. Not a lot of people are aware of it although the usage of it is increasing tremendously. This paper would analyse how this industry works to give a detailed insight into the current trends and industry impacts. **Design:** A Research paper. **Data Sources:** A search of published evidence from 1990–2020 using keywords (as outlined below) was undertaken from which relevant sources were selected to build an informed discussion. **Conclusion:** This paper discusses the conceptual models of cloud kitchens and demonstrates an important link between the it and pandemic.

INTRODUCTION

Cloud Kitchen - commercial cooking facilities that have no physical dining space and cater only to delivery orders placed online — are projected to become a $2 billion industry in India by 2024, according to RedSeer Management Consulting. That's up from $400 million in 2019. In a survey carried out by the company, 21% of the respondents said they were more likely to increase their online ordering of takeaway food after the lockdown, while just 9% said they were more likely to visit restaurants more often. Cloud kitchens are better suited to the needs of socially distanced customers than traditional dine-in restaurants. They're also able to minimize some costs, such as rent, and without wait staff require fewer. people on the payroll. Covid-19 and Cloud Kitchens - As the nation continues to grapple with the effects of COVID-19, the economic repercussions of the pandemic have been widespread. You would have to look far and wide to find an industry that has not been negatively impacted. The foodservice industry has been particularly hard hit with most restaurants shut and delivery aggregators reporting large declines in order volumes.

Counter-intuitive as it may seem, cloud-kitchen based brands have also been negatively impacted, especially in the initial stages of the pandemic. Uncertainty at local government levels about the designation of cloud kitchens as an essential business, meaningful supply chain disruptions, coupled with confusion and misinformation regarding the spread of the disease led to significant declines in order volume. While online food ordering and deliveries have started to pick back up, it is undeniable that consumer behavior has been significantly altered.

Extended lockdowns and work from home practices have allowed customers the time to cook at home. Hygiene and safety have replaced discounting as the primary factor in most food purchasing decisions. Major aggregators like Zomato and Swiggy have strongly impressed upon their restaurant partners the need for strict safety measures in both the preparation and delivery of food and continue to help highlight those partners that follow these measures. There has been a clear shift away from deals and discounts to safety and hygiene.

Background

History of Cloud Kitchen: Cloud kitchens are not a new concept: pizza delivery restaurants have been around for decades, and, specifically, pizza prepared for take-out came to be in the 1950s. The current concept of the cloud kitchen initially emerged in India. In 2003, Rebel Foods, backed by Sequoia, started its first business, Faasos, which sells Kebabs. Today, Rebel Foods has over 9 brands and recently raised $125 million and is valued at $525 million.

Types of Cloud Kitchens

- **Hub and Spoke Model –** In the hub and spoke model, a central kitchen prepares the food, and then semi-cooked dishes are shipped to final smaller outlets where they need to be cooked before shipping. It results in cost-savings due to scale and standardization.
- **Pod Kitchen –** These are small containers that can be placed in any location, such as parking lots. Due to their size and mobile nature, they are easy to set up and operate. They have had their own share of controversies as mentioned earlier.
- **Commissary (Aggregator) Kitchens -** These are the kitchens that are owned by a 3rd party. Many restaurants will use them on a shared basis, from kitchen space to fridge space. Travis Kalanick has invested in City Storage Systems, which transforms old warehouses into kitchens. A comparison can be drawn with shared working spaces where different companies share the same utilities and rent out office space from a service provider. These kitchens can be fully stacked or just have a shell kitchen. These are also termed kitchen as a service (KaaS).
- **Outsourced Model –** As the name suggests, here all the operations, food preparation and customer-facing operations are outsourced. The chef just provides the final touch before sending out the product for delivery. This is not a popular model.
- **Independent Kitchen –** Standalone kitchens with no offline presence. They can deliver the product themselves, through a food aggregator, or through both.

Cloud Kitchen Market in India: In India there has always been the concept of a dabba system among the younger generation such as students and working professionals who stay away from their families. With promotional methods such as flyers and posters near these offices and campuses, any potential customer or someone interested would contact and place an order for home cooked food and get it delivered to their doorstep. This culture with the advent of technology, social media networks , the businesses reach out to the clients. The concept has now evolved where these kitchens are reaching out to the customers through the online platforms such as Swiggy, Zomato etc. India's food conveyance market is developing by jumps and limits, and is esteemed at 15 billion dollars. There has been an increment of around 150% in the online food conveyance framework in 2017 when contrasted with 2018. The online food conveyance framework is esteemed at 300 million dollars, out of which cloud kitchen's market adds to 200 million dollars. The income in the online food conveyance portion will add up to US$8,167m in 2019. The Revenue in the online conveyance market is expected to show a yearly development rate (CAGR 2019-2023) of 9.1%. It is projected that India would emerge as the nation with the second highest number of cloud kitchens after China in the coming years.
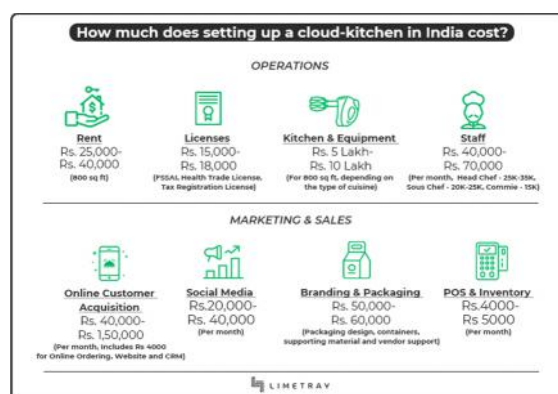
Merits of Cloud kitchen

- Savings on infrastructure,investment
- Reductions in service time through kitchen automation
- Better quality control of food cooked
- Easy expansion
- Minimum staff required
- Higher consistency in food taste
- Lower delivery times due to distributed cooking
- Emergence of Logistics providers
- Higher customer retention due to better control of quality and taste
- More contextual customer data in terms of food preferences
- Expanding Variety of Cuisines
- Competitive pricing strategy due to higher margins
- No commission revenue

Challenges Faced by Cloud Kitchen

- Late Delivery: The staff is not able to keep up to the expectations of on time delivery during a busy schedule or peak seasons. This often results in the late delivery of food, thereby resulting in uncertain repercussions.
- Dependency on Internet: In the case of an internet outage, restaurants tend to lose the ability to complete basic operations such as taking orders, accepting payments and tracking orders. They also tend to lose access to data, thereby losing huge amounts of money in the system.
- Absence of Human Touch: The cloud kitchen concept is devoid of human touch with no personal interactions between the vendor and the customer. The entire process, starting from food ordering to delivery of food has no face to face interactions.
- Hygiene: Many times companies build their kitchens in unhygienic conditions, in order to reduce the operational costs as much as possible. Customers don't really want to be served from prime real estate. However, any chosen kitchen needs to be hygienic so that the food is edible.

Market Size: With improvements in technology, changes in lifestyle preferences, and upgrades of the value chain, cloud kitchens are set to take off.In the report "Is the Kitchen Dead?" UBS estimates that the online food delivery market will grow ten times in the next ten years, from $35 billion currently to $365 billion by 2030.

Financial Aspects of Cloud Kitchens

Above image from [lime tray] cloud kitchen concept, Souradeep Datta | February 4, 2019.

UBS mentions that "In a world of increasingly time-starved and asset-light consumers, online food delivery is part of a mega-trend, combining the on-demand and sharing economies." UBS predicts that there could be a scenario that most meals currently cooked at home are instead ordered online and delivered from either restaurants or central kitchens.

Investment Trends: Customarily, VCs have not been pulled into the eatery business, as it is viewed as a non-versatile model and one in which the extension can be driven with incomes produced from business. In any case, with cloud kitchens, this has changed. Sweet Green, which can be viewed as the principal unicorn in this space, measures half of its orders through an application or online stage. India-based Rebel Foods, Faasos' parent organization, is estimated at $525 million. At first, financial backers have been centered more around food aggregators because of the adaptability of tasks. Be that as it may, the center has been moving towards specialist co-ops just as towards cloud kitchen administrators. As the aggregator market faces serious rivalry, we can expect greater interest in the initial two phases of the worth chain. While in food aggregators, it has been a champ to bring home all the glory, for specialist organizations and cloud kitchens we can expect a maintainable development model.

Emerging trends: Vertical Consolidation: Existing players are growing and attempting to turn out to be full-stack players. An illustration of this is UberEats going into cloud kitchen space with the procurement of Ando. This empowers the players to intently control the environment and stay in the predominant position. This may likewise permit them to follow the "Walled Garden" approach.

Mechanization: Keatz, a Berlin-based cloud kitchen organization that has brought ~$14 million up in financing needs to robotize the kitchen to the degree where machines are associated with the web and are worked by robots. This is said to help in less food squander and a lower need for labor over the long haul. Formula Improvement: Startups are likewise centered around improving plans for the food. New businesses, for example, Dig Inn are chipping away at plans where the food isn't transported in the customary structure however with slight changes making it reasonable for utilization during travel. UberEats has been working with cafés to make conveyance menus. Information Driven: In request to get effective, cloud kitchens need to use information all the more productively. They have information no time like the present of request, ticket size, area, and which fixings are utilized for a particular request. This information gives significant data about how a food business can keep enhancing its tasks. Every information point helps an association settle on better choices.

Strategies Adopted by some cloud kitchens in India during the Pandemic

- Cloud Kitchen Rebel Foods launched ready to cook marinades as there was increasing demand from the consumer to cook at home.
- Most of the chefs who lost their jobs due to Covid-19 converted home kitchens into cloud kitchens and partnered with aggregators for food delivery according to South India Chefs Association [SICA] around 100 to 150 chefs turned to cloud kitchen this facility allows users to schedule their meals in advance or opt for a daily, weekly or monthly subscription.

- During pandemic swiggy launched swiggy daily, to offer simple homestyle meals prepared by homechefs, tiffin service providers and organised vendors.
- Quick service restaurants [QSR] chain Mad Over Donuts adopted the ghost kitchen model in Bengaluru. It partnered with Loyal Hospitality in Bengaluru and Rebel Foods in New Delhi for cloud kitchens.
- Malaysian QSR chain Momo King is also operating through cloud kitchens in Delhi - NCR by partnering with Smart Kitchen Company to operate 11 kitchens in Delhi NCR. Company plans to extend it's cloud kitchen model to Chandigarh and Dehradun and launch an app for deliveries.
- Multiplex chain carnival cinemas launched it's shadow kitchen brand Purple Foods & Beverages in June 2020 . Company opened it's cloud kitchen in their own premises and is servicing about 50 - 55 orders a day. It has launched it's app and delivery fleet and has also tied up with food aggregators.
- Under the Prime Minister Street Vendors Atmanirbhar Nidhi, [PM SVANidhi] scheme Swiggy , partnered with the Ministry of Housing and Urban Affairs [MoHUA] to provide online access to street vendors to supply food to its consumers.
- Some cloud kitchens adopted trends such as DIY food kits and shorter menus helping take-out businesses secure their foothold in the market.
- To cope with safety measures, Rebel monitors employees' temperatures and holds weekly tele-health consultations, in which a doctor uses basic health questions to assess whether employees are fit to work. Average order value for Rebel increased by 50% to 60% since the announcement of the lockdown, as most customers order for their families too.
- The mumbai-based business Homelynow experienced that among all the people ordering during lockdown, 90% of them are new retail customers although corporate orders have taken a hit due to office closures across the country. Application to join Homely Now's team of more than 48 cooks has risen too as people look for additional or secondary income sources.

CONCLUSION

Innovations are an integral part of business and only those who innovate to keep pace with the changing business environment are able to survive during the hour of crisis. Dring lockdown, Cloud Kitchen along with food aggregators worked on business models to provide services as per the changing consumer preferences of the customers. The expanding populace, changing eating inclinations, longer holding up time and longer travel times are main impetus for the helpful, less expensive and home conveyance alternatives of having food conveyed at our doorsteps. Mainstream food conveyance applications like Swiggy, Zomato, Food Panda, Uber Eats and Dominos are getting unavoidable for Indians in the web period. Eateries are moving concentration from conventional kitchens to cloud kitchens to tap the abundant chances lying in this field. Cloud kitchen idea supports a superior authority over request and supply, consequently assisting with arriving at productivity quicker. Another viewpoint that gives cloud kitchens more inclination is the expanding buyer tendency towards quality food as against the oily passage that inexpensive food undertakings for the most part offer.

With specific impediments like late conveyance, reliance on web and so forth Cloud kitchen is a definitive need of time over conventional kitchen and eateries know that the fittest will get by in the exceptional rivalry.

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