EVALUATE CUSTOMER AWARENESS OF CLOUD KITCHEN IN MANGALORE CITY

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ABSTRACT

Any innovative idea or business plan needs time to adapt and be successful. Traditional brick-and-mortar restaurants and Cloud Kitchen Modelled restaurants compete against one another on a global scale. Although the Cloud Kitchen Model in Mangalore is still in its infancy, the model has the potential to grow over time.

Purpose: The major purpose of this research paper is to find out the awareness of customers on cloud kitchen operations in Mangalore city and to find out more cloud kitchen outlets existence.

Design/Methodology/Approach: This is a pilot study. The primary data is collected using a structured questionnaire. Secondary data related to the study is analysed by collecting data from various research papers and publications.

Findings/ Results: With the analysis of primary and secondary data major findings are the more intensive marketing strategy required specially via social media network and the advantages of cloud kitchen need to be communicated to the customers.

Keywords: Cloud Kitchen, Customer, Awareness, Food And Beverage, Restaurant Mangalore.

I. INTRODUCTION

The goal of the study is to determine the cloud kitchen model's competitive advantage over the city of Mangalore's traditional food shops by examining its advantages and disadvantages. The purpose of the study is to evaluate consumers' perceptions of online dining and food delivery services, as well as their knowledge of cloud kitchen restaurant business models in Mangalore. A mixed-method approach is used in the methodology, with the quantitative method being the main technique. The study adopted a descriptive methodology, with the main analysis being driven by quantitative techniques. In particular, individuals interested in the "delivery-only" food business model as well as the research customers will find the results of the specified aims to be useful (e.g., entrepreneurs, marketing research teams, researchers of academia, etc.) They could be curious to discover more about the businesses in Mangalore city that are modelled after cloud kitchens in order to popularise the idea and raise client knowledge of their existence.

The term "Cloud kitchen" has gained popularity in the internet era, as generation Z expects to be able to order the majority of amenities with only one click. The hub-and-spoke operating system is used by Cloud Kitchen. Food is brought from a large central kitchen (the hub) to the outlets (the spokes), where it is then delivered to the appropriate clients. A cloud kitchen is a takeout establishment without a dining area.

FACTORS AFFECTING THE GROWTH OF THE CLOUD KITCHEN INDUSTRY ARE AS FOLLOWS:

Market opportunity: Receiving meals delivered at a fair price and on time is one of the main benefits that cloud kitchens have offered to all. Currently, individuals prefer to order meals and have them delivered to their homes rather than going to a restaurant for a sit-down meal. And the home delivery option has changed the restaurant sector due to the shift in consumer tastes and growth of the cloud kitchens korma market. Thus, there is now more market possibility for cloud kitchens.

Low investment: The cloud kitchen upgrade does not require a significant upfront cost. This is due to the fact that it does not imply an excellent position, which significantly lowers the cost of real estate. Also, since there isn’t a front-of-house restaurant, there is no requirement for staffers to have a beautiful workspace.
Easy experimentation: Cloud kitchen is the only business model in the food and beverage industry that enables a person to test out various ideas without spending. This makes it evident that anyone can manage several brands from a single kitchen. This also implies that the operator can utilise the same culinary resources and infrastructure. To launch a new brand, just register it with one of the online food aggregators.

Increase in Personal Disposal Income: The personal disposable income in India is a respectable 11%. The millennial generation is now very interested in living a healthy lifestyle and is very health conscious. Indians are spending more money on desserts, chocolates, and other organic foods.

According to the IBFF survey (Nov, 2020) In Delhi, there are already over 20,000 cloud kitchens that are already in operation, and that number is growing by more than 20% annually. A significant number of direct and indirect jobs are supported by these kitchens. Famous Indian Cloud Kitchens include Faasos by Rebel Foods, Hoi Foods, and Biryani by Kilo. Legal Compliance Checklist for any Cloud Kitchen in India - Compliance with cloud kitchens is largely static. The licences needed to launch one are comparable to those needed to launch a catering business in India. Although having no physical presence, cloud kitchens must naturally maintain the highest levels of food quality and sanitation. Consumers are unable to independently confirm this, thus all legal criteria must be satisfied in order to protect the company from potential litigation and disputes in the future. FSSAI Certificate, Trade and health licences, GST Registration number, Fire and safety Licences, Shop establishment Act, Trademark registration. The KSNDK in its web article explains this in detail, further it highlights on FDI and hospitality it also highlights on the role of cloud kitchen. Recent technology innovations have had a significant impact on the food service industries. The emergence of food delivery apps, online reservations for dine-in services, and other new business models have created exciting new opportunities in the food service industry. Yet, because of the cloud kitchens, there are now new legal worries about the loss of fair competition and the impact of the new FDI policy.

OBJECTIVES
1. To evaluate the awareness of cloud kitchen
2. To identify the availability of cloud kitchen service providers in Mangalore.
3. To compare the services of cloud kitchen with other food outlets

II. LITERATURE REVIEW

FOAPS (May 06, 2022) an online restaurant management system technology development startup in India explains a step-by-step process of cloud kitchen setup in India.

Selecting the ideal rental property - It is advisable to pick a location where customers are most in need of the services the kitchen provides.

Registration of trademarks and licences - Due to regulatory requirements and to maintain a worry-free business, licencing is an essential component of every setup. The cloud kitchen model can avoid any legal issues and inform clients of the high calibre of the food and cleanliness provided by the cloud kitchen by having the appropriate licence. A commercial cloud Kitchen may require many licences like GST Registration, Trade License, Fire and Safety, FSSAI etc Deciding the Menu – With the market survey and by keeping competition in mind, finalizing on the menu is very crucial step. Menu is the selling product of a cloud kitchen. It needs to be an attractive one in many ways like, food variety, cuisine, price etc.

Kitchen area, appliances, and raw ingredients – by deciding on the menu and cuisine, the list of equipment made to ease the kitchen work. Again, space management becomes very important. The storage space for raw ingredients – perishable and non-perishable becomes very crucial.

Order Management System Online - A cloud kitchen startup's primary business strategy is centred on meal delivery aggregators like Swiggy or Zomato. It is highly reliant on the volume of orders, accurate tracking, preparation, and delivery. Imagine having to manually record and communicate to the crew each order from a different food aggregator. As a result of potential mistakes, a lack of accurate information, and other factors, this may interfere with the efficient operation of your cloud kitchen.

Staff Management - It is advised to start off with a minimal team of 1-2 cooks, one person to handle the billing, one for marketing, and one person to handle any questions on phone calls. It takes 1-2 persons to keep the cloud kitchen clean and in working order. The workforce can be expanded as needed as the earnings rise.
Marketing - The sole restriction on a cloud kitchen business model is physical promotion, but these sectors are free to take advantage of online marketing's possibilities. It is advisable to use a variety of marketing strategies to determine which ones work best for drawing attention to your cloud kitchen since there is no one platform that always works the best for marketing.

d'Amour, C. B (2020) explains about the customer/consumer taste in food product selection, criteria followed and the eating out decision making. The current study looked at Indian food product consumer behaviour from a variety of angles. Some of the most significant qualities that Indian consumers place a high value on while purchasing food goods are the product’s cleanliness, pesticide-free status, freshness, healthfulness, and clean retail environment. Other crucial factors include cost-effectiveness, overall quality, taste, range of products offered at the same location, seasonality of the product, flavour, good product displays, nearby accessibility, and a pleasant environment. The impact of promotional offers on the sales of food and beverage is minimal, and consumers do not place a great value on food imports when making purchasing decisions. Chopra S. (2020) in her research she tries to find out the change in the food habits and eating out patterns and states that a total of 995 replies were gathered. Particularly in the younger population (age 30 years), improvements in healthy meal consumption patterns and a reduction in unhealthy food items were noted. Particularly among men and in the top socioeconomic echelons, there was a correlation between a decline in physical activity and an increase in daily screen time. Gupta, V., & Duggal, S. (2021) The purpose of the study is to determine different risk and benefit perceptions associated with customers' use and preference of online food delivery services (OFDAs) in India. A sizable online food collaborator and aggregator business has been established as a result of the growth of OFDAs in India and changes in consumer lifestyle and food consumption patterns. This study evaluated the key hazards and benefits that users of OFDAs typically consider when deciding whether or not to use an OFDA. Further, it was found that the risk and benefit perceptions associated to OFDAs are answerable for the changes in the attitudes of users which consequently alters their behavioural intents. According to the findings of the factorial analysis, the psychological risk factor was determined to be the most significant influencer among the perceived risk factors examined, followed by personal, financial, and societal hazards.

Kapoor, A. P., & Vij, M. (2018) explains that, mobile apps are now widely used, and marketing academics and professionals have realised how useful they are as tools for engaging consumers online. The current study constructed and experimentally tested a model to investigate how mobile app qualities of online food aggregators might affect a customer's purchase decision and subsequently result in conversion in order to explore the function of mobile apps in consumer engagement. We specifically offered actual proof that conversion rates are significantly impacted by visual, navigational, informational, and collaborative design. According to Khan, T. A., Khan, S. A., Haque, S., & Ayub, M. F. B. (2023) Due to rising internet usage, improved logistical systems, and relatively low setup costs, Indian restaurant operators are considering opening cloud kitchens rather than traditional eateries. Also, cloud kitchen models may enable quicker supply times. Traditional restaurant models, on the other hand, come with a number of comparative drawbacks, such as a higher initial capital required and a physical storefront structure, which deter low-capital investors.

Verma, S. M., Pawar, M. S. K., & Bose, M. I. (2022) in their article they discuss about the new technology and its benefit to cloud kitchen sector, while there is no need to pay for prime sites or on-site staff, a cloud kitchen has a benefit over a regular restaurant in that it has reduced entrance and operating costs, such as leasing fees, licencing charges, and equipment prices. Also, it is adaptable in terms of shifting locations and including new delivery items. Customer information may be easily extracted from applications and websites, which aids in setting competitive rates. Compared to previous methods, customer acquisition costs are cheaper. Cloud kitchens also have cheaper administration costs since they don't require a more elaborate staffing structure or aesthetically pleasing design. Because of this, cloud kitchens have better profit margins than conventional restaurants. Low labour costs and a scalable design are advantages of cloud kitchens. According to Choudhary, N. (2019) Cloud kitchens are the way of the future because the younger generation is quickly adopting them. The author claims that tough competition, shifting consumer preferences, decreased operational costs, improved food quality, rising personal disposable money, and altered customer lifestyles are the main factors behind cloud kitchens' rising popularity.
According to Khan, T. A., Khan, S. A., Haque, S., & Ayub, M. F. B. (2023), several tactics and elements must be taken into account for a cloud kitchen business to succeed. The use of digital marketing tools, discounts, and other cost-cutting measures, effective advertising, providing something unique without sacrificing quality, integrating with online delivery platforms, offering something unique without compromising on quality, providing something unique without compromising on quality, rewarding reviewers, providing a mechanism for customer feedback, continuously improving efficiency, the efficacy of the process used, and genuine collaboration are notable strategies. Location, an online meal ordering system, a licence, promotion, employees, etc. are all deciding criteria. While ordering through cloud kitchen platforms, customers rely on the testimonials and suggestions of prior customers. Thushar Menghani in his case study which is published in the blog site the marcom avenue, explains that, Swiggy, India's top on-demand food delivery platform, was founded in 2014 with the goal of improving urban consumers' quality of life through convenience. For anyone who wishes to buy food online, the food delivery service has amassed over 5,000,000 app installations and has become a standard household name.

Ryu & Jang (2007) noted that a factor influencing customer behaviour at a restaurant is the dining environment, which includes things like seating arrangements, music, and décor. Similar to this, Chow et al. (2007) noted that the physical setting and interactions with the employees are significant factors that define the types of services a client might expect from an outlet. The combined impact of ambient factors on behavioural intentions in premium restaurants. The study found that the ambiance of restaurants and employee grooming affected customers emotionally, which therefore altered customers’ post-dining behaviour. In their evaluation of earlier research in the field of food service, Nick and Ray (2002). They acknowledged that the food service sector had knowledge gaps and weaknesses in relation to the hospitality sector's understanding of guest behaviour. They also recommended conducting fresh studies in the food and beverage industry to examine this grey area. Han and Ryu (2009) recommended that restaurants arrange their physical space in a way that makes it simple for customers to anticipate the pricing they would receive. They added that the creative design of a restaurant will aid the company in attaining particular marketing goals like a customer's favourable attitude towards a business, a customer's optimistic perception of quality, and a customer's positive evaluation of experience.

### III. METHODOLOGY

When all the sample sizes, data collection techniques, and methodologies are taken into consideration, the study can be categorised as mixed method-based. For the secondary data collection process, the researcher used a number of articles on cloud kitchen models and customer awareness of product, service, and food outlets, including both the qualitative and quantitative methodology of studies. This context also makes use of pertinent news articles, statistical websites, and blogs produced by subject-matter specialists. The fact that Mangalore is a non-metropolis makes it difficult to find items that are directly related to one another.

### IV. DATA ANALYSIS

#### Summary of the overall data collection and tools

<table>
<thead>
<tr>
<th>Target Audience</th>
<th>Sample Size</th>
<th>Tools of Data Collection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customers/Online application Users</td>
<td>70</td>
<td>Survey – Online via Google Form</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Numbers</td>
<td>55</td>
<td>15</td>
</tr>
<tr>
<td>Percentage</td>
<td>78.6%</td>
<td>21.4%</td>
</tr>
</tbody>
</table>

The researcher distributed the online survey form to both students and the broader public. 70 replies were received to complete this particular pilot study, and the data was analysed and filtered to achieve the study's goals. It has been noted that most respondents (78.5%) are men. Several age groups of respondents to this poll have provided their responses. These age brackets were created in a way that the consumer preferences match and relate to the outcomes. The responders broken down by age are listed below.
Table no 3: Distribution of respondents according to age group.

<table>
<thead>
<tr>
<th>Age Groups</th>
<th>No of Respondents</th>
<th>Percentage%</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-20</td>
<td>20</td>
<td>28.6</td>
</tr>
<tr>
<td>21-25</td>
<td>42</td>
<td>60</td>
</tr>
<tr>
<td>26-30</td>
<td>1</td>
<td>1.4</td>
</tr>
<tr>
<td>31-35</td>
<td>4</td>
<td>5.7</td>
</tr>
<tr>
<td>36-40</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>40-50</td>
<td>1</td>
<td>1.4</td>
</tr>
<tr>
<td>51&amp;above</td>
<td>2</td>
<td>2.9</td>
</tr>
</tbody>
</table>

The frequency of respondents eating out is displayed in the table below as a percentage (%). The table actually demonstrates unequivocally that weekend eateries are more prevalent in towns like Mangalore than other dining options. It's important to note that many people favour home-cooked meals and rarely eat out.

Table no 4: Frequency of respondents Dining out occasions.

<table>
<thead>
<tr>
<th>Frequency of eating out</th>
<th>Daily</th>
<th>Weekends</th>
<th>Multiple times a week</th>
<th>Rarely</th>
</tr>
</thead>
<tbody>
<tr>
<td>No of Respondents</td>
<td>2</td>
<td>31</td>
<td>13</td>
<td>24</td>
</tr>
<tr>
<td>Percentage%</td>
<td>2.9</td>
<td>44.3</td>
<td>18.6</td>
<td>34.3</td>
</tr>
</tbody>
</table>

When it comes to the sort of service offered by responders, the majority of them consider time factor, such as street food and quick service restaurants, while many of them like to sit down and unwind before placing their orders and eating their meals.

Researcher sought to identify the main reasons for eating out among respondents, people want to try newer and more varied foods, making this the top reason for eating out (65.7%).

The main goal of this study is to determine the level of familiarity with the cloud kitchen idea in Mangalore. While 77.1% of the respondents claimed to be familiar with the term "cloud kitchen," just 17 of the 70 respondents provided names of cloud kitchens. 10 cloud kitchens functioning in and around Mangalore city have been recognised and named by the entire sample of respondents. Only 58.6% of people have ordered food and beverages through Cloud Kitchen, leaving 41.4% of people without any orders at all.
The majority of respondents claimed they use food aggregator applications like Swiggy, Zomato, etc. to order food from cloud kitchen. Because most survey participants like to dine in, or use the restaurant’s amenities, 51.4% of respondents say they don’t frequently order food from F & B establishments. 70% of the respondents preferred having their food delivered to their door when they ordered it as opposed to travelling to the restaurant and picking up the meals.

**Frequency of food ordering from F & B Outlets in case of not Dine-in**

![Frequency of food orders in case of not dine-in](image)

**Preference on Food Delivery / pickup style**

![Preference on food delivery/pickup style](image)

The researcher made an effort to learn why a specific food outlet was chosen to accept online orders. The findings demonstrate that the majority of respondents base their final decisions on internet reviews (47.1%), followed by the presentation of images and written descriptions (37.1%). Exact explanations and the percentage of respondents are shown in the following graph.

![Driving force before placing an order for Food and beverage](image)
The respondents were little aware of the various Cloud Kitchen locations in Mangalore. Only 25 of the 70 interviewees are familiar with the Mangalore cloud kitchens. They have collectively listed 10 cloud kitchens in Mangalore city out of these 25 responders. This is a graphical representation of the information.

Identified Cloud Kitchens

Fig No 6: Response on recognising cloud kitchen in Mangalore

The majority of respondents (58.6%) believe that social media platforms are utilised by cloud kitchens to reach out to more people and raise awareness. This finding is consistent with the sample's overall opinion on the marketing strategy of the cloud kitchen companies. With this data is plainly noticed that 18.6% of the respondents don't recognize the difference between cloud kitchen services compared with restaurants.

The survey's preference question sought to learn which type of food and beverage outlet respondents preferred. According to the survey results, 46% of respondents prefer restaurants to any other kind of food and beverage establishment. The taste and quality of the food are also the main factors in choosing the chosen sort of food and beverage establishments.

Fig No 7: Preferred type of F & B Outlet by the respondents

Fig No 8: Reason for selecting the particular type of F & B outlet
One of the major cities in the state of Karnataka is Mangalore. The majority of respondents (57.1%) believe Mangalore is the best place to operate a cloud kitchen, while only a small minority (5.7%) disagree. However, 37.1% of respondents are unsure of the answer. 8.6% of respondents agree that cloud kitchens are a new trend in the food and beverage sector, and a sizable portion (93.9%) think that strong marketing is necessary to spread awareness of the concept in a place like Mangalore.

V. DISCUSSION

Notable studies on cloud kitchens in the Mangalore city context are not available in these reviews of the literature. The majority of the studies rely on case studies and are qualitative. Quantitative ones include market risk analysis and customer retention-based models that show a rise in customer awareness in the states involved. It would be necessary to conduct a study to find out how many Mangalore customers are familiar with the cloud kitchen model and, as a result, the likelihood that future customers will place an order using cloud kitchens. These evaluations of the literature describe how the idea of a "cloud kitchen" first emerged in India and large cities. The function of Cloud Kitchen in Mangalore City is not highlighted in these literary works.

Customer perception of a specific product or service is crucial in any industry, but it is particularly crucial in the hospitality sector because this sector relies heavily on customer reviews and word-of-mouth advertising. To evaluate the literature in this area, the researcher was unable to locate any such scholarly articles.

VI. FINDINGS

Comparison of the Results with the Previous Studies.

<table>
<thead>
<tr>
<th>Findings of this Study</th>
<th>Findings from Previous Studies and Comparison</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most people who are familiar with cloud kitchens discovered about them through social media.</td>
<td>According to TFridayani et al. (2021), social media exposure is an essential tactic for cloud kitchens to be successful. Cloud kitchens can therefore leverage the attention already received on social media to increase their reach.</td>
<td>Supported by Previous Studies</td>
</tr>
<tr>
<td>Consumers are able to distinguish between cloud kitchens and conventional designs.</td>
<td>Customers in India could tell the difference between the two models, according to Bhat et al. (2020).</td>
<td>Supported by Previous Studies. Similar findings in data analysis.</td>
</tr>
<tr>
<td>Price competition between cloud kitchen and restaurants is important factor.</td>
<td>The advantage of a cloud kitchen over a conventional restaurant, according to Beniwal T. et al. (2021), is that it has cheaper entrance and operational costs. As a result, they can set lower prices.</td>
<td>This factor is not studied by the researcher via survey.</td>
</tr>
<tr>
<td>In terms of a quick delivery, customers prefer street food and quick service restaurants.</td>
<td>According to Setyowati (2020); Fridayani et al. (2021), cloud kitchens are able to handle online orders exclusively, meaning there is no crowding of orders from the offline counterpart. As a result, food can be delivered more quickly.</td>
<td>New findings are contradictory to previous studies in the customer point of view.</td>
</tr>
<tr>
<td>Customers prefer their food to be delivered to the door-steps.</td>
<td>According to Abhinav (2020) Many now prefer ordering food online and having it delivered to their homes over going to a restaurant for a sit-down meal. Also, the home delivery option has altered the restaurant industry as a result of changing consumer preferences and the expansion of the cloud kitchens korma market. As a result, the market potential for cloud kitchens has increased.</td>
<td>Supported by Previous Studies. Similar findings in data analysis.</td>
</tr>
</tbody>
</table>
Some more notable findings of this study are, according to the research, the majority of consumers believe that social media is where they first learned about the cloud kitchen. In order to effectively express their thoughts through social media, cloud kitchen restaurants need to be proactive on these channels. When using cloud kitchen platforms to place orders, customers rely on evaluations and feedback from prior users. So, cloud kitchens should function through their own proprietary online delivery applications (rather than solely relying on delivery partner apps) and evaluate customer feedback. According to a qualitative study, own delivery platforms can give cloud kitchen owners more precise feedback. Although Mangalore City is familiar with the term “cloud kitchen,” very few orders for food and beverages are ever placed from this source. Only a small number of individuals are aware that the cloud kitchen even exists, and its identification as a distinct brand is not done very aggressively. There aren’t many cloud kitchens in the city that are emphasised. Strong marketing is crucial for familiarising people with cloud kitchens, and investing resources on social media and food aggregator app advertising could boost cloud kitchen business in Mangalore.

VII. LIMITATIONS

Literature devoted to research is lacking.

As just 70 people participated in the pilot study, it is difficult to generalise the findings.

In order to conduct the study from the customer and revenue-generating points of view, the restaurant or cloud kitchen operators did not provide feedback or participate in a survey.

VIII. CONCLUSION

Any novel concept or business strategy requires time for adaptation and success. Cloud Kitchen Modelled restaurants and traditional brick-and-mortar modelled eateries are in direct competition worldwide. Although the Cloud Kitchen Model is still in its infancy in Mangalore, there is long-term promise for the model. The players in the market need to develop their ability to predict trends and comprehend the gaps that can be filled, such as the rarity of offering distinctive products, the lack of aggressive targeted marketing, the inadequate incorporation of consumer feedback dynamically, the lack of own delivery systems, the lack of long-term partnering with more extensive delivery associates with clear mitigation policies, and the reluctance to collaborate with other cloud kitchen aspirants through a facilitator umbrella. Additionally, business owners and decision-makers can draw on the experiences of the cities like, Bangalore, Delhi or Mumbai to help develop legislation that support Cloud Kitchen-based restaurants while taking into account the advantages of the model over more conventional ones.

IX. REFERENCE

By Dr Abhinav Saxena, November 25, 2020


