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# Post Pandemic Shift of Consumer Behavior & Cloud Kitchen

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**Abstract:** *The pandemic COVID-19 has significantly impacted consumer behaviour, with many people turning to online shopping and delivery services in order to avoid in-person interactions. As a result, there has been a surge in demand for food delivery services, which has led to the rise of cloud kitchens. The aim of this paper is to carry out an empirical investigation and examine elements that influence the purchase decision of generation X, Y, and Z with regards to cloud kitchens. Overall valid data of 358 responses were collected from the customers who are in practice of ordering food for home. Further data was analysed using SPSS(v26). The research provides insights that can be helpful on development of new business models, technologies, and best practices that can help restaurant owners navigate changing landscape of industry. The current findings might be useful for the restaurant owners as they may channelize efforts according to result implied in the study.*

**Keywords:** *Cloud Kitchen, Generation X, Y, & Z, Consumers, Ghost Kitchen, Pandemic*

## I. INTRODUCTION

The pandemic COVID-19 emerged as a catastrophe that has stunned our definition of 'normal', with almost every sector of the entire world's economy. Due to the pandemic COVID -19, the food industry, is adversely affected, along with many other industries [1]. The Food & Beverage [F&B] industry was among those that suffered the most, with notable drops in order volume and an abrupt halt in patronage at cafeterias and restaurants. Food Service Aggregators [FSAs] like Zomato and Swiggy agonized a significant hit, as all the restaurants were closed and all of a sudden demand for outdoor food went down. Although, this has modified consumer behaviour today consumers consider hygiene, cleanliness, sanitization, and thermal scanning while making restaurant selection criteria [2].

Over the next decade, the online food delivery market is projected to experience significant growth. It is predicted that by 2030, the worldwide market for delivering meals online will increase to ten times its current size. Post-pandemic there is a drastic shift in consumer behaviour [1]. To thrive, generate income, and remain viable, restaurants must carefully evaluate and explore all available alternatives. This subsequently led to the alteration of most of the business models to ghost or cloud kitchens; this is a business framework that is turning out to be the most effective in times of such crisis. A disruptive digital invention that is still emerging known as the cloud kitchen is a term used interchangeably with virtual kitchen or ghost kitchen [3].

In light of current challenges, the notion of the cloud kitchen, which involves preparing and delivering food directly to customers' doorsteps, seems to be a viable solution for businesses. The perception of cloud kitchen and the pandemic Covid 19 has transformed the behaviour of consumers [4]. Cloud kitchens are often located in low-rent areas that offer affordable leasing options. These areas are typically not in high-traffic commercial or residential zones, as the focus is on delivery rather than foot traffic. Cloud kitchens may also be located in industrial areas, as they often have lower rent prices and easy access for delivery drivers. The specific location may vary depending on local regulations and market demand. While there is a significant amount of research on restaurant and hotel selection criteria, such as those conducted by many researchers [5,6], there is currently limited research available on cloud kitchens. The notion of a cloud kitchen is critical since the pandemic has transformed how the public specifically "foodies" behave as consumers. The food delivery industry has maintained its significance and shown that the cloud model has a promising future despite unfavourable circumstances. The food and beverages business needs this upheaval brought on by cloud kitchens to be revitalized. This study's main objective is to conduct customer analysis and identify the market in India's food industry for the business model based on cloud kitchens. Specifically, to identify the consumer's expectancy and curiosity for online food delivery, his desired cuisines, etc. However, post-pandemic specifically many customers are ordering food online. Therefore, this study aims to conduct an empirical study and discover the aspects affecting the decision-making of the three basic generations: X, Y, and Z concerning cloud kitchens. The present study is based on the model that describes the process of making choices related to food and meals suggested by Furst [7], which provides the framework for the current study. This paper aims to explore the behaviour of decision-making of three primary generations, namely X, Y, and Z, regarding the success of cloud kitchens, by analyzing the various factors or aspects that influence their choices.

## II. LITERATURE REVIEW

After thoroughly examining a substantial amount of literature, it can be deduced that there is a mystifying variance and resemblances between the three generations: X, Y, and Z with referring to age groups, morals, ethics, work or personal values, and lifestyle. This study is on three generations: X, Y, and Z with a motive to discover their expectations and interest in online food delivery and explore the factors affecting the purchase decisions of the three generations for cloud kitchens.

A challenge for any competitive business is adapting to the fast-changing needs of its customers. It has been evident that what one likes to eat may say a lot about what generation he or she belongs to. "Generation X" was introduced in a novel by Douglas Coupland [32] published in the year 1991. This generation has been demarcated as an "in-between" generation. They were the best educated and the first technologically savvy generation in history. The world was going through a time of adjustment and transition when Generation Y was growing up. Their formative years were characterized by astronomical technological advancement, economic upheaval, and globalization. The Millennial generation is another name for Generation Y. Therefore, Generation "Y", has a very different outlook on life, as well as a different mindset and way of acting. This is primarily a result of the diverse experiences they had growing up (compared to their predecessor generation X). Whereas Generation Z is no exception, they're much smarter than Generation X, and way more ambitious than the Millennials. They are also known as iGen or Digital Generation/Natives, Media or .com Generation, etc [8]. Thus, this generation Z also known as post-millennials has comfort with technology and focus on health [9]. For this study, the term "Gen X" refers to individuals born between 1961 and 1980, "Gen Y" refers to those born between 1981 and 2000, and "Gen Z" refers to individuals born between 2001 and 2010 [10].

### A. Cloud Kitchen

The primary objective of nearly all food and beverage industries is to merge food with an enjoyable experience, such that customers are contented not only with satisfying their hunger but also with the overall experience [11]. And inevitable circumstances such as this pandemic have certainly had an impact on the way people order food. Cloud kitchens or virtual kitchens, are commercial facilities that are designed for food preparation and delivery only and are going to see a super inclination post-pandemic. This will automatically assist the organization in incurring reduced expenses, which could be in the form of offers, hampers vouchers, or gift coupons. The studies have suggested that cloud kitchens are a rapidly growing trend in the food industry, driven by changing consumer preferences and advancements in technology. While cloud kitchens offer many benefits, such as cost savings and increased flexibility, they also pose challenges, such as the need for efficient logistics and branding. It remains to be seen how cloud kitchens will evolve and impact the food industry in the years to come. While it has been observed that the pandemic has accelerated the growth of cloud kitchens, it remained to continue post-pandemic as well. However, with the ongoing shift towards online ordering and delivery, it is expected that cloud kitchens will keep enduring a significant role in the food business.

### B. Theoretical Support for Model

The selection of food encompasses psychological, cultural, economic, and sociological perspectives [12]. This study is related to the model proposed on consumer food-related behaviour by Furst [7], and is based on three key factors: personal factors, situational factors, and social factors. According to this model, the interaction of these three factors determines a person's food-related behaviour. The model suggests that personal factors have the strongest influence on food-related behaviour, followed by situational factors, and then social factors.

Overall, this model underscores the significance of comprehending the intricate interplay among personal, situational, and social factors in shaping consumer behaviour related to food, including the use of cloud kitchens. By taking these factors into account, businesses can develop more effective strategies to meet the needs and preferences of their target consumers. Thus, it has been mentioned that an individual's life course generates a set of influences and these influences inform and forms their systems. The life course perspective emphasizes the importance of understanding how these various factors interact and shape an individual's experiences and outcomes throughout their life. It is composed of experiences, cultural background, and interest in current trends. Whereas, the concept of "influence" is made up of two main elements: ideals and personal factors. Ideals refer to an individual's expectations or perceptions of what constitutes a proper meal and can be influenced by cultural, social, and personal factors. Personal factors, on the other hand, include resources such as money, time, and information, as well as the social and food context in which food-related decisions are made. The personal system aspect of consumer food-related behaviour encompasses several important factors that influence food choices and consumption. These factors include financial considerations, quality, well-being and health, ease and convenience, relationship management, and strategic decision-making.

The above-mentioned notion is the base for this study in the selection of the various hypotheses for exploring their impact on three generations: X, Y, and Z's purchase decisions made by consumers when selecting their preferred food options from a cloud kitchen.

The different hypotheses are as follows:

#### 1) *Food Aspect*

In the food industry, customers play an even more crucial role, as they are the ones who consume the food and provide feedback. With the great regional variation present in the nation, it is particularly challenging to comprehend people's preferences and choices. There a multitude of numerous factors that influence individuals' food preferences, such as cultural background, personal taste, dietary restrictions, and health concerns [13]. Today, customers seek a unique experience in traditional restaurants, and they don't accept to compromise with ego good taste in favour of subpar service or an unpleasant dining ambiance. Though, food quality will always be the primary selection factor. In the case of a cloud kitchen, there is nothing comparable with other outlets, neither the ambiance nor the quality of customers is applicable, thus the quality of food, expertise, and diversity in cuisine is required. Under the process of selection of food patterns, acuties of meals that reflect, likes and dislikes, social status, incomes, food features, etc. are influenced. The supplementary aspect of food embraces the cuisine with a diversity having gastronomic proficiency in the range of customer preferences [14]. Nowadays dietary food options is high demand [15]. Lastly, the quantity of food being offered is also another area of concern for the customers. All these aspects influence the purchase decision of the customer.

H1: There will be a positive impact of food aspects on purchase decisions in the framework of cloud kitchen.

#### 2) *Price Aspect*

Consumer decision-making is greatly influenced by pricing, and if an organization can take advantage of this fact, it can increase sales volume and revenue. Pricing is a direct feature that generates revenue and serves as an indicator of the success or failure of the industry associated with it. The price of any goods or service is the crucial factor that influences a person's decision to make a purchase [16]. Young people with limited financial resources tend to become more strategic and investigative when searching for options that provide good value for their money.

This is particularly true when it comes to making purchase decisions. Good prices of eminent brands affect the consumer purchasing process [17]. Typically, the price of a commodity serves as a criterion for assessing its worth, meaning that a higher price is indicative of superior quality [18]. Customers spend more on food for two major reasons: an unforgettable experience or superior quality [19]. The model for an individual's decision-making process when it comes to food choices involves evaluating the product or service based on its cost.

H2: There will be a positive impact of the price aspect on purchase decisions in the framework of cloud kitchen.

#### 3) *Marketing Aspect*

Modern-day customers are better educated, analytical, and have higher expectations [20]. The emergence of social networks has significantly transformed human interactions, especially in the context of engaging customers and influencing their behaviour. To effectively influence customer behaviour, businesses need to comprehend how consumer values, attitudes, and beliefs impact the execution of digital marketing campaigns. The primary aim of a company's marketing endeavours is to modify consumer behaviour. Promotional tactics that can be employed may involve impactful advertising, exclusive promotions, loyalty schemes, price reductions, eye-catching packaging, favourable evaluations, and favourable recommendations, including online publicity.

H3: There will be a positive impact of the marketing aspect on purchase decisions in the framework of cloud kitchen.

#### 4) *Technology Aspect*

Technology has empowered customers. Customers have unlimited access to the information and demand products they want. The incorporation of technology in both the manufacturing process and distribution enables the company to maintain a competitive advantage over its rivals. Over time, incorporating technology into service delivery has proven to be equally beneficial and businesses should prioritize incorporating technological innovations into their services to provide value for their clients. It should be emphasized that companies that concentrate on technology are perceived as having the ability to produce or offer excellent products and services [21]. Technology can serve as a compensating feature, breaking down complex operations into a series of smaller, more manageable workflows.

Additionally, the company's philosophy that prioritizes the use of technology is recognized as a factor that contributes to increased innovation and enhanced delivery of products or services [22].

Consumers may interpret the food and beverage industries specifically cloud kitchens as technologically oriented, from its flexible website, efficient payment processing, and usage of artificial intelligence to provide status updates and culinary recommendations based on past orders placed by customers.

H4: There will be a positive impact of the technology aspect on the purchase decision in the framework of cloud kitchen.

#### 5) *Hygiene Aspect*

The food and beverage industry is constantly concerned about food hygiene and cleanliness. Specifically, during and after post-pandemic Covid-19 has triggered the ability of the hospitality business to adopt hygiene factors as the new normal. Numerous diseases that are transmitted through food consumption can lead to sickness and death. In the specified situation, hand hygiene and social distancing were supposed to be good options for reducing this contagious infection [23]. However, as a result of the ongoing Covid-19 Pandemic, both food businesses and their customers now regard the upkeep of healthy practices throughout food preparation, packaging, and delivery as a necessity [24]. Also, it has been noted that customers are more concerned with health and hygiene issues post-pandemic due to a fear of contracting any virus or disease.

H5: There will be a positive impact of the hygiene aspect on purchase decisions in the framework of cloud kitchens.

#### 6) *Aesthetic Aspect*

Numerous decisions we make daily are influenced by our aesthetic perceptions of various components of the environment [25]. The experiences related to aesthetics are often linked to motivational factors like the pursuit of pleasure, sensory sensations, and emotional responses [26]; which increases the inclination of customers toward products and services [27]. This kind of interest stimulates a person's cognitive functions and motivates them to purchase products or services that have aesthetic features, thereby increasing their level of contentment as a customer. Aesthetic i.e., the appearance of the food is believed to have a stronger impact on influencing consumer's purchase decisions. Individuals' tendency to consider aesthetic factors is significant when making a purchase choice.

H6: There will be a positive impact of aesthetic aspects on purchase decisions in the framework of cloud kitchens.

#### 7) *Miscellaneous Aspects*

There are various kinds of customers, some of whom are spontaneous and impulsive, while others follow a comprehensive process and conduct extensive research before deciding to make a purchase. Thus, other miscellaneous aspects influence the individual's purchase decision.

Like functional aspect, is primarily concerned with fulfilling the needs of the customer and is supported by a rationale that considers what is practical and aligns with the customer's best interests. The next aspect to consider is delivery, which involves evaluating factors such as time, cost, and value.

Timely delivery plays a crucial role in ensuring customer satisfaction, but in some cases, excessively early delivery of food may be viewed as inadequate [28]. The eco-friendly or sustainability aspect, encompasses a range of activities, including the reduction of waste, the reuse of materials, recycling, and the implementation of reverse logistics. Thus, enabling the organization to gain a competitive advantage.

Next, there is the experiential aspect, which is based on the idea that customers seek out novel, exciting, or impressive experiences beyond simply consuming food or utilizing a service [29]. That could be either by entertainment experience, educational experience, escapist experience, or some other experience. Thus, miscellaneous aspect includes eco-friendly or sustainability aspects, memorable food experience, timely delivery aspect, or supply chain management aspect.

H7: There will be a positive impact of other miscellaneous aspects on purchase decisions in the framework of cloud kitchen.

### III. METHODOLOGY

This study is focused on three generations: Gen X, Gen Y, and Gen Z with a motive to discover their expectations and interest in online food delivery and explore the factors affecting the purchase decision of the three generations for cloud kitchens. This study's population encompasses individuals who were born from 1961 to 2010.

Thus, the sample comprised consumers of various age groups between 14 and 61 years of age to capture the preferences for food points [cloud kitchen]. The research employed purposive sampling, as well as some elements of snowball sampling and convenience sampling.

#### IV. DATA COLLECTION & ANALYSIS

The pilot test was conducted on the questionnaire by surveying 50 respondents. The main part of the questionnaire is comprised of five-point Likert-scaled items to measure food, price, marketing, technology, hygiene, aesthetics, and other miscellaneous aspects. Then survey was conducted in November 2022 amongst consumers of different age groups to test the hypotheses. In total, 600 questionnaires were circulated among the customers who are in the practice of ordering food for home. For data collection, respondents were contacted personally as well as through digital mode.

The targeted group consisted of individuals who had used online methods to order food within the past year. The responses were gathered through online means, and the survey participants were contacted directly through email, LinkedIn, and other social media channels. The respondents were chosen based on information provided by many cloud kitchens, with the understanding that their comfort and assent were required due to the strictly academic nature of the research. The items in the study were derived from relevant literature sources. The scale was validated using SPSS[v26].

For this research, the target population was three generations: X, Y, and Z who were born between 1961 to 2010 i.e., the age group from 13 and 61 years of age to know the preferences for food joints [cloud kitchen]. Out of 358 respondents, 192 were male [53.8%] and 165 were female [46.2%], 102 [28.6%] were undergraduate, 118 [33.1%] were graduate courses and 137 [38.4%] were postgraduate. Whereas 90 [25.2%] were from Generation X, 123 [34.5%] were from Generation Y, and 144 [40.3%] were from Generation Z.

#### V. MEASUREMENT MODEL

The scales in the study were developed by referring to the guidelines suggested by Nunnally [30]. In the study, a combination of scales and items were used to measure variables related to the topic of research. Some of these scales and items were adopted from existing research studies that were previously validated and used in the field [33;34]. However, to ensure comprehensive coverage of the variables under study, own self-designed scales and items were also developed and included. This approach allowed for a more holistic and context-specific assessment of the variables, providing a well-rounded perspective on the phenomenon being studied. The Kaiser-Meyer-Olkin [KMO] score is 0.938 as shown in Table 1, which is excellent as it exceeds the recommended threshold of 0.9. Additionally, Bartlett's Test of Sphericity result from the same table shows a significant value of 0.00, which is below 0.05. This indicates that the null hypothesis can be rejected, implying that the correlation matrix is not an identity matrix.

TABLE I: KMO AND BARTLETT'S TEST

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.938
Bartlett's Test of Sphericity	Approx. Chi-Square	8084.802
	df	703
	Sig.	.000

Construct Reliability: Overall, 358 valid responses to questionnaires were received. For Cronbach's alpha coefficients, all values were above the 0.70 benchmarks,[30] which indicated a sufficient internal consistency of the variables. Thus, a reliability analysis was made using Cronbach's Alpha coefficients, table 2 shows the reliability of the instrument.

TABLE 2: CRONBACH'S ALPHA COEFFICIENTS  
(SCALE RELIABILITY ANALYSIS)

Variable	Cronbach's Alpha	No. of items
Food Aspects	0.722	5
Price Aspect	0.882	3
Marketing Aspect	0.769	4
Technological Aspect	0.727	3
Hygiene Aspect	0.830	4
Aesthetic Aspect	0.894	4
Miscellaneous Aspects	0.733	6
Purchase Decision	0.830	4

Based on the information provided in Table 3, the model shows a moderate positive correlation [ $R = 0.707$ ] between the predictors (Other Miscellaneous Aspect, Price Aspect, Technological Aspect, Food Aspects, Hygiene Aspect, Marketing Aspect, Aesthetic Aspect) and the dependent variable (Purchase Decision). The model explains 50% of the variance in the purchase decision [ $R^2 = 0.500$ ]. The adjusted  $R^2$ , which accounts for the number of predictors and sample size, is 0.490. The standard error of the estimate is 0.67842, indicating the average difference between the predicted and actual values. The Durbin-Watson statistic of 1.342 suggests the presence of positive autocorrelation in the residuals.

TABLE 3: MODEL SUMMARY<sup>B</sup>

Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R <sup>2</sup> Change	F Change	df1	df2	Sig. F Change	
1	.707 <sup>a</sup>	.500	.490	.67842	.500	49.793	7	349	.000	1.342

a. Predictors: (Constant), Other Miscellaneous Aspect, Price Aspect, Technological Aspect, Food Aspects, Hygiene Aspect, Marketing Aspect, Aesthetic Aspect

b. Dependent Variable: Purchase Decision

Table 4 displays the results of Harman's one-factor test, which reveals that only 35.376 percent of the variance was accounted for by one factor, suggesting that common method bias was not a concern. All VIF values ranged from 1.628 to 3.407, which is within the acceptable range of less than 5. Thus, there is no significant issue of collinearity in the data, as noted by Chiu and Choi [31].

TABLE 4: HARMAN'S ONE-FACTOR TEST  
TOTAL VARIANCE EXPLAINED

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	13.972	36.769	36.769	13.443	35.376	35.376
2	2.450	6.447	43.216			
3	2.066	5.438	48.654			
4	1.661	4.371	53.025			
5	1.573	4.140	57.166			
6	1.391	3.659	60.825			
7	1.091	2.870	63.695			
8	1.011	2.661	66.356			
9	.980	2.579	68.935			
10	.853	2.245	71.180			
11	.803	2.114	73.294			
12	.727	1.912	75.206			
13	.675	1.776	76.982			
14	.591	1.554	78.536			
15	.588	1.547	80.083			
16	.570	1.500	81.583			
17	.521	1.371	82.954			
18	.481	1.266	84.220			
19	.468	1.232	85.452			
20	.459	1.208	86.660			
21	.432	1.138	87.798			
22	.391	1.029	88.826			
23	.388	1.021	89.847			
24	.375	.986	90.833			
25	.349	.919	91.752			
26	.321	.845	92.597			
27	.305	.803	93.400			
28	.297	.782	94.182			
29	.287	.754	94.936			
30	.283	.745	95.681			
31	.257	.678	96.359			
32	.245	.646	97.004			
33	.219	.576	97.580			
34	.216	.568	98.148			
35	.201	.528	98.676			
36	.183	.482	99.159			
37	.175	.460	99.619			
38	.145	.381	100.000			

Extraction Method: Principal Axis Factoring.

Statistical significance: Table 5 presents the ANOVA results, which include the F-ratio used to test the goodness of fit of the overall regression model. The table shows F-value of 49.793 and degrees of freedom of [7, 349]. Additionally, the p-value is less than .0005, indicating that the regression model is a good fit for the data.

TABLE 5: ANOVA<sup>A</sup>

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	160.422	7	22.917	49.793	.000 <sup>b</sup>
Residual	160.627	349	.460		
Total	321.048	356			

a. Dependent Variable: Purchase Decision

b. Predictors: (Constant), Other Miscellaneous Aspect, Price Aspect, Technological Aspect, Food Aspects, Hygiene Aspect, Marketing Aspect, Aesthetic Aspect

Overall hypotheses testing: Table 6. The standardized coefficients [ $\beta$ ] indicate that food aspects, price, marketing, technology, hygiene, aesthetics, and miscellaneous aspects all have a significant influence on the purchase decision i.e.,  $\beta_{FA} = 0.135$  [ $p = 0.013$ ];  $\beta_{PA} = 0.14$  [ $p = 0.019$ ];  $\beta_{MA} = 0.044$  [ $p = 0.486$ ];  $\beta_{TA} = 0.017$  [ $p = 0.762$ ];  $\beta_{HA} = 0.203$  [ $p = 0.001$ ];  $\beta_{AA} = 0.119$  [ $p = 0.091$ ],  $\beta_{OMA} = 0.301$  [0.000]; based on the information provided in the table, H1, H2, H5, and H7 are supported, while H3, H4, and H6 are not supported.

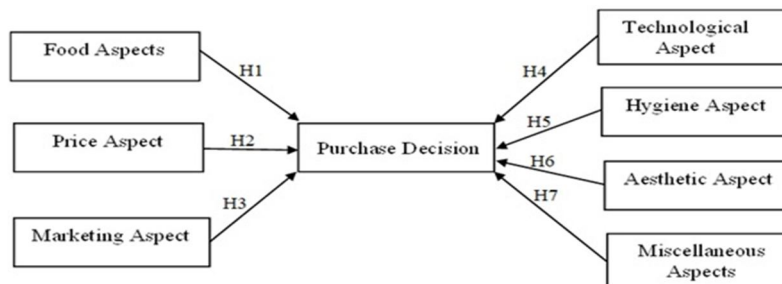
TABLE 6: HYPOTHESIS TESTING

Hypothesis	Beta	B	Std. Error	t	Sig.	Lower Bound	Upper Bound
H1 FA - PD	0.135	0.189	0.076	2.485	0.013	0.039	0.339
H2 PA - PD	0.14	0.102	0.043	2.36	0.019	0.017	0.186
H3 MA - PD	0.044	0.042	0.06	0.698	0.486	0.160	0.076
H4 TA - PD	0.017	0.018	0.059	0.303	0.762	0.098	0.134
H5 HA - PD	0.203	0.215	0.066	3.245	0.001	0.085	0.345
H6 AA - PD	0.119	0.111	0.065	1.697	0.091	0.018	0.24
H7 MA - PD	0.301	0.48	0.077	6.225	0.000	0.328	0.631

95.0% CI for B

## VI. DISCUSSION AND CONCLUSION

In today's market, consumers' purchasing habits and preferences are continually changing and evolving [35]. Consequently, it is essential to regularly evaluate the products that they prefer. This study accomplished its goal of investigating the factors that influence the decision-making process of individuals from generations X, Y, and Z regarding cloud kitchens through empirical means. The current research study examines the food choice process model as it applies to three generations: Gen X, Gen Y, and Gen Z. There are very few rather limited research papers available on consumer preferences for cloud kitchens. And to address and fill this gap, the prime purpose of this research was to explore the different factors responsible for the success of cloud kitchens. Therefore, the aspects that might affect a buyer's decision specifically regarding cloud kitchens were considered in the study. The result revealed food [cuisine and quality], price, marketing, technology, hygiene, aesthetics, and a few other miscellaneous aspects to be the significant consumer purchasing sources.



Conceptual Framework



This study builds upon and expands upon many of the prior research studies in this field by considering the desiring variation in behaviour related to the selection of particular cuisine be it, traditional Indian, Mexican, Chinese, Vegan cuisines, cookery proficiency [15;36;37]. Amongst the three generations studied, Gen Z was found to be the most highly prioritized by customers across various age groups, followed by Gen Y and then Gen X, respectively. Further, the same was in the case of taste and expertise Gen Z is remain again on top to be cautious, whereas most of the Gen X was neutral in the matter. Thus, supporting hypothesis H1. For all three generations studied, Gen Y considers price and value for money to be two crucial factors when making a purchase decision. Thus, hypothesis H2 is supported. This study also confirms the fact that numerous dimensions are present that influences the responses of individual, such as Gen Y and Gen Z mentioned that marketing and promotional activities, significantly influence the purchase decision [38]. Further Gen Z strongly supported that promo codes, loyalty cards, points, ratings by customers, and packaging [39;40] influence their purchase decision. Thus, the findings support earlier research showing that various strategies can help businesses attract more customers. Furthermore, our hypothesis posited that technology would aid in the buyers' purchase decisions when it comes to ordering food online from cloud kitchens. This was in keeping with research showing time savings from adopting technology, such as ordering food online and having it delivered to your phone. The website offers user-friendly navigation, product customization options, and convenient payment methods to incentivize customers to return, all of which are considered advantageous features [41;42] Gen Y and Gen Z again validated the same. Therefore, the conclusion is that technology is one of the key factors in modern society. Additionally, the present results support the notion that food hygiene and safety is a crucial aspect of the food supply chain. If proper safety and hygiene measures are not taken, it may lead to negative perceptions among consumers [43]. In this study, all three generations, Gen X, Gen Y, and Gen Z strongly supported the same. Thus, hypothesis H5 is supported. All three generations, Gen X, Gen Y, and Gen Z strongly supported the findings indicating buyers, when it comes to food and technology; facilitated aesthetics, are curiously looking for novelty, appearance, and looks [44;45], although post covid it seems the same is not applicable. In hypothesis H7 amongst all three generations, Gen Z has shown the highest frequency in ordering food online followed by Gen Y. Furthermore, all three generations demonstrated that on-time and efficient delivery was a crucial factor in overall customer satisfaction [9;46]. Companies in this situation must have a reliable delivery system with few to no instances of service failure. Additionally, these efforts to promote sustainable and green consumption help people feel less guilty. Customers' intentions to pay for environmentally friendly goods or services do not always result in green purchases, this was strongly supported by Gen Y further followed by Gen X and Gen Z respectively. Similar findings strongly imply that considerate staff behaviour is an essential component of service [47]. Customers' perception of an organization is influenced by the courteousness, responsiveness, and sincerity of the service staff. The study's results also suggest that Gen Z strongly believes that food is a means of expressing personal identity, enhancing the quality of life, and creating memorable experiences. Therefore, the company's endeavours to make customers feel valued, such as personalized offers and including a birthday note on the delivery box or their social media page, can create a "wow" moment for the customer.

## VII. BEHAVIOURAL DIFFERENCE AMONG THE THREE GENERATIONS

In conclusion, the study conducted a comprehensive examination of the expectations and interests of three generations: X, Y, and Z regarding online food delivery, with a specific reference to cloud kitchens in the post-COVID period. Several important conclusions were drawn after rigorous examination and investigation.

Firstly, it was observed that online food delivery services sparked a significant interest in all three generations. This statistic underlines the growing importance of convenience and efficiency in the dining experience, particularly in the aftermath of the COVID-19 pandemic. The convenience offered by cloud kitchens, with their quick and hassle-free delivery options, proved to be highly appealing to respondents across all generations. Secondly, there were notable differences in priorities among the generations. Generation X, for instance, placed more emphasis on food quality and pricing, while Generation Y showed a higher preference for menu variety and convenience. Generation Z, being the youngest group, exhibited a greater inclination towards digital engagement and innovative food concepts. Additionally, the study revealed the profound impact of the pandemic on the perceptions and behaviours of these three generations towards online food delivery. This pandemic acted as a catalyst for the adoption of cloud kitchens and online food ordering, as it highlighted the need for contactless and safe dining options. This shift in consumer behaviour is likely to have long-lasting effects, even as the pandemic recedes.

Lastly, the findings of this study underline the significance of understanding the expectations, interests, and purchasing decisions of different generations in the context of online food delivery and cloud kitchens. Identifying and catering to the exceptional preferences and priorities of each generation can provide valuable insights for businesses in the food industry, enabling them to better adapt and tailor their offerings to meet the evolving needs of their target consumers.

#### A. *Theoretical Implications and Practical Implications*

The theoretical implications of this study lie in understanding the factors that influence the purchase decisions of different generations (X, Y, and Z) when it comes to cloud kitchens. By examining the impact of various aspects such as food, price, marketing, technology, hygiene, and aesthetics on consumer behaviour, the study aims to contribute to the existing body of knowledge on consumer decision-making in the food industry. Further, the scale used in the study is to evaluate consumer behaviour for restaurant selection dining-in or ordering food at home from a cloud kitchen and having it delivered, although in the past the same was with reference to dining out. Nevertheless, consumer behaviour has changed both during and after the COVID-19 pandemic. Consumers have begun to consider "dining in" rather than "dining out" following the pandemic, and this effect is anticipated to last for a long time.

The study found that Generation Z showed a predilection for environmentally friendly and memorable food experiences. They expressed a desire to encounter unique, extraordinary, and fascinating moments. Furthermore, factors such as their life courses, engagement with emerging trends, apprehension about the future, and personal values, including a sense of moral responsibility and environmental concern, influenced their embrace of sustainable practices. Therefore, the current study contributes to the Furst [7], food choice process model by including miscellaneous factors i.e., eco-friendly or sustainability aspects, memorable food experience under influences component. These miscellaneous factors are now increasingly becoming more important in the process of making purchase decisions, specifically in Generation Z. Thus, this research contributes to the advancement of the food choice process theory Furst [7], by demonstrating that miscellaneous aspects have a positive influence on consumer food purchase decisions. Therefore, this study provides an opportunity to examine the model of the food choice process from a new perspective, potentially expanding and enhancing the existing model.

The findings of the study can provide insights into the preferences and expectations of different generations, which can help businesses in the food industry, particularly cloud kitchens, to develop effective strategies to attract and retain customers. The conclusions that can be drawn from the analysis have practical applications and implications, which may include actionable insights or recommendations for decision-making in relevant fields. Understanding the factors that influence consumer decision-making can help businesses tailor their offerings to meet customer expectations and preferences. For instance, by focusing on food quality and diversity, cloud kitchens can attract customers who prioritize these factors in their food choices. Similarly, pricing strategies can be designed to provide good value for money and attract price-sensitive consumers, especially among younger generations. Effective marketing strategies can help create brand awareness and influence consumer behaviour in favour of cloud kitchens. Embracing technology in the operations of cloud kitchens can enhance efficiency and customer experience, thereby attracting tech-savvy consumers. The marketers could direct their efforts in a focused manner according to the result implied in the study. Marketers are advised to go beyond simply offering standard attributes like excellence, amount, taste, or cost when promoting their products. Instead, they should aim to create a unique and memorable experience that generates a "wow" or "aha" moment for the consumer. By doing so, they can increase customer satisfaction and encourage repeat purchases.

Furthermore, the study highlights the importance of hygiene and aesthetics in consumer decision-making. Cloud kitchens need to prioritize food safety and cleanliness to instill confidence in customers, particularly in the post-pandemic era where hygiene concerns have heightened. Additionally, paying attention to the aesthetics of food presentation can enhance the overall dining experience and attract customers who value visual appeal. The results of the present study could be beneficial for restaurant owners who are struggling with financial constraints caused by the COVID-19 pandemic. One potential opportunity that they could explore is transitioning their business model to operate as a cloud kitchen. Almost every restaurant has a client database, which may be utilized to inform existing customers about the new services available to them at their doorstep by highlighting your facilities' top features, such as cleanliness, hygiene, contactless delivery, etc. Moreover, by providing superior services, this will be a fantastic opportunity to foster ties with clients and broaden the clientele. By considering these theoretical and practical implications, businesses in the food industry, particularly cloud kitchens, can adapt their strategies to meet the evolving needs and preferences of consumers, ultimately improving their competitiveness and success in the market. The restaurant and cloud kitchen industries, which place a premium on customer service, may gain from not only knowing what customers want but also teaching them what they deserve.

#### VIII. LIMITATIONS AND FUTURE SCOPE OF RESEARCH

Despite the limitations of this study, the identified drawbacks also present opportunities for future research. Firstly, the samples used in the present investigation were all drawn from India. As a result, the consumer preferences of many nations can be investigated for greater generalizability. One potential area for improvement in future research is the use of probability sampling techniques instead of convenience sampling, which was employed in this study.

Additionally, future studies could expand their scope by examining various brands that operate cloud kitchens to provide a more comprehensive understanding of the phenomenon. Some of the hypotheses [H3, H4, and H6] were not supported by the data. Further investigation could explore the reasons behind these findings and examine potential factors that may influence the purchase decision but were not considered in the current study. Overall, while the research presented offers valuable insights into the factors influencing consumer decision-making regarding cloud kitchens, there are limitations and opportunities for further investigation. Addressing these limitations and exploring the suggested future research directions would contribute to a deeper understanding of consumer behaviour in the context of cloud kitchens and help businesses make informed decisions.

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