The Pervasive Influence of Social Media on Consumer Awareness of Cloud Kitchens

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Abstract: Cloud kitchens are food service business that offers ready-to-eat meals for delivery or takeout ordered by phone, food delivery apps, websites, or through social networks. These businesses are around for many years but they become popular due to technological advances.With this in mind the present study was taken to examine the factors responsible for influencing the customers towards cloud kitchen. The study also analysed the role played by social media in the success of cloud kitchens. It is to know the extent of awareness created by social media. To test this objective a random sample of 500 customers were taken by the method of convenience. As the questionnaire was categorical in nature, chi-square test was conducted to check the significance of objectives. The study concludes that 'Quality' as a factor has pervasively influenced the customer and 'Youtube' as a social media was consistent in creating customer awareness towards the cloud kitchen.

Keyword: 'Cloud Kitchen', 'Customer awareness', 'Social media' and 'Pervasive influence'.

INTRODUCTION

The growth of social media has significantly changed the strategies used by the food business to interact with consumers. For cloud kitchens, which don't have a physical store and only distribute food, the internet is very crucial. Social media is essential for cloud kitchens' operations. It is the main thing of drawing attention and bringing in clients. This paper analyse the social media strategies that assist cloud kitchens in influencing the customers.

Social media marketing helps cloud kitchens to connect with potential clients without being constrained by geographic location. Because cloud kitchens are entirely online, they don't have a physical location like regular restaurants do. Influencer marketing leverages partnerships with food bloggers and online personalities to introduce the brand to a wider audience. Compelling content marketing utilizes visually appealing photos and videos to showcase food and engage potential customers. Building a community involves creating a strong online presence and fostering a sense of belonging among followers. Leveraging user-generated content encourages customers to share their experiences and photos, providing authentic social proof.

Food lovers are encouraged based on their genuine interests. While gaining new clients is crucial, keeping existing ones is just as crucial for long-term success. Due to social media, which enables direct communication with clients and answers their questions, cloud kitchens have increased value with their patronage. Social media, which enables personal interaction with customers and allows for the answering of their questions and feedback, has

increased the value of cloud kitchens with regard to client loyalty. Social media also aids in building relationships with clients by including them in content that goes beyond simple exchanges and transactions. Additionally, by providing special incentives and promotions that further promote repeat business, marketers help retain devoted clients. Furthermore, social media helps to improve the services and expedite the settlement of problems by reminding cloud kitchens to fill in feedback gaps. As long as there is a cloud kitchen brand, they can continue to be visible and relevant to clients without any obstacles.

Investigating the impact of social media on customer awareness of cloud kitchens presents a unique challenge, particularly given the nascent nature of both the cloud kitchen model and its reliance on digital platforms. While existing research on this specific intersection is limited, this study aims to explore this dynamic relationship. The following sections will present a concise literature review, outlining the current understanding of social media marketing and cloud kitchen operations.

REVIEW OF LITERATURE

Paul and et.al (2024, June): In this paper _"Effectiveness of Digital Marketing on Instagram: A Study on Eat Sure Multi-Brand Cloud Kitchen"_ the researchers analyseEatSure'sInstagram marketing strategies and their impact on customer satisfaction. The research identifies the different strategies usedto attract and engage customers. The paper highlighted the effectiveness of these strategies providing valuable insights for managerial and marketing decisions within the multi-brand cloud kitchen sector.

Saikit Lahiri and et.al,(2024):The author highlights technology's role in optimizing operations, enhancing customer engagement, and driving profitability. The present study highlights the importance of AI, ML, RPA, blockchain, and AR in streamlining processes. Rebel Foods exemplifies technology-driven scalability in India's cloud kitchen landscape.

Saputra, and et.al, (2024). This writer studies the key factors influencing customer loyalty in coffee shops. The findings emphasize atmosphere, employee attitudes, and coffee quality as crucial to customer satisfaction, while service quality shows no significant impact. Practical insights help coffee shop managers enhance customer experience and retention.

Sarbhai and Khare (2023): The study explored the post-pandemic shift in consumer behavior and its impact on cloud kitchens through *"Post-Pandemic Shift of Consumer Behavior & Cloud Kitchen."* The research investigates the factors influencing purchase decisions of Generations X, Y, and Z regarding cloud kitchens. The study reveals significant generational differences in food ordering behavior and offers valuable guidance for restaurant owners to adapt their strategies to the ever changing market and enhance competitiveness.

Pan, M. S. (2023): The author explores the rise of cloud kitchens in the Indian restaurant industry in the study titled *"Concept of cloud kitchen- a new trend in Indian restaurant industry."* The research investigates cloud kitchens as a new business avenue, particularly in post-pandemic India and examines the challenges faced by these ventures. The study highlights cloud kitchens as a viable and innovative solution well-suited to the "new normal" of virtual business models. Findings emphasize the need for adaptability and creative business strategies to address challenges like operational inefficiencies, competition and market awareness.

Segismundo, G. F. (2023): The author examines the role of search engine marketing (SEM) in the report, *"The role of search engine marketing: the case of Hertz Ride".*Based on an internship with Hertz Ride's Marketing and Sales department the work analyzes the company's digital marketing strategy focusing on SEM's impact on visibility, traffic, and ROI.

Putri and Nurmalina (2023): The scholars studied factors influencing food delivery app (FDA) used during the pandemic. Their research, *"Factors Influencing Ready-To-Eat Meal Consumer's Intention To Use Food Delivery Apps During The Covid-19 Pandemic,"*analysed how subjective norms, perceived risk, attitude, and technology acceptance impact intention to use FDAs. The study highlights the importance of understanding consumer behavior for FDA platforms and restaurants.

Campbell andet.al, (2023): The researcher examines key attributes influencing online food ordering in Rajasthan, India. Their study titled *"Attributes Influencing Consumer Perception towards Online Food Ordering in Rajasthan,*

India," identifies and analyzes attributes affecting customer platform selection. The study highlighted six critical attributes—Promotions, Delivery Time, Accessibility, Flexibility, Payment Ease, and Packaging—the research uses Conjoint Analysis to provide actionable insights for OFO companies to optimize service offerings and improve competitiveness**.**

Parashar and et.al, (2023): The authors explored the sustainability and gender inclusivity of cloud kitchens focusing on women-led ventures in Delhi-NCR, in their study *"Cloud kitchens: business model for sustainability and inclusion."* The researcher examines how cloud kitchens provide a pathway for women's financial independence and local business ownership with minimal investment. The study also identifies challenges faced by women entrepreneurs in this industry and offers recommendations for support through government-private sector partnerships to foster inclusivity and profitability.

Ghosh and Saha (2022): The researcher in the study titled*"A Study into the New Dimension of Marketing with the Advent of Cloud Kitchens in Kolkata,"*examines the impact of cloud kitchens on Kolkata's traditional restaurant business particularly post-pandemic. Their research identifies marketing strategies used by cloud kitchens to enhance market presence and explores the future of fine dining in light of cloud kitchen growth. The study provides insights into the altered competitive landscape, cloud kitchen marketing strategies, and consumer behavior trends impacting the future of fine dining establishments.

Deepak B.'s (2022) study provides valuable insights into the business viability of cloud kitchens in Hyderabad, examining financial feasibility, marketing strategies, and customer preferences. Using NPV, B:C ratio, and regression analysis, the research highlights cost advantages and profitability, offering strategic implications for cloud kitchen businesses.

Alt R (2021): The author study title *"Digital transformation in the restaurant industry: Current developments and implications,"*analyzes the impact of digital transformation on restaurant processes, products, and business models. The study explores future directions of digital services, focusing on automation, individualized offerings, and system integration. Key findings emphasize the need for restaurants to address more customer touchpoints and offer personalized experiences suggesting a focus on increased automation and system integration for improved efficiency and service.

Sharma and Verma (2021) analyze India's food tech industry, examining business models, strategies, scalability, and funding. Using secondary data, they assess market share impacts, highlighting competition and offering insights for companies to strengthen their position in this evolving sector.

Othman, Nor, and Rosdi (2021) analyze Malaysian consumers' behavioral intentions toward ghost kitchens using the e-Selfqual framework. Their study finds that

perceived control, convenience, and service fulfilment significantly influence adoption, offering valuable insights for food businesses navigating post-COVID-19 economic challenges.

Tai, Sou and et.al, (2020): The researchers in the article titled *"The role of information technology in the food industry,"* explore the transformation of CRM from static to interactive emphasizing IT's role. Their research identifies key technological platforms and tools that enhance customer interaction, improve efficiency, and reduce costs. The study also highlighted the potential of IoT, big data, and cloud technologies as differentiation opportunities for food service providers offering insights into enhancing customer engagement, optimizing operations, and creating competitive advantages.

Gosai and Palsapure (2020), in 'Customer Perception and Competitive Analysis of Cloud Kitchens Using Porter's Five Forces Model', analyze factors influencing online food orders. Using primary and secondary data, their study highlights cloud kitchens' profitability, consumer preferences, and strategic insights for sustainability and market expansion in the evolving food and beverage industry.

Gupta and Joshi (2020), in "Restaurants in India: Facing the Threat of Online Delivery Platforms", examine the conflict between NRAI and food delivery platforms over deep discounts and predatory pricing. The case explores challenges restaurateurs face, platform strategies, and strategic options for navigating the evolving food delivery ecosystem.

Nanaiah (2020), in "A Study on Consumer Behaviour and the Impact of Food Delivery Apps on College Students in Bangalore", analyzes competition among food delivery apps and key factors influencing usage. The study highlights millennials' role in driving app profitability and examines restaurant options, delivery time, discounts, and user experience.

Zou and Liu(2019): The authors explored the influence of nutrition information on online food sales.Their field experiment examines the impact of this information and its interaction with seller reputation with differential effects on healthy versus unhealthy food sales. Results indicate that nutrition information significantly increases online food sales with seller reputation strengthening its effect. Furthermore, the presence of nutrition information leads to greater sales of healthy foods compared to unhealthy options.

Voramontri and Klieb (2019): The study title*"Impact of social media on consumer behaviour,"* investigates how social media influences consumer decision-making for complex purchases. The research focused on the information search, alternative evaluation, and purchase decision stages, and assesses social media's role in amplifying consumer satisfaction. The study found that social media significantly impacts satisfaction during the information search and alternative evaluation stages

enhancing overall satisfaction. It highlights social media's importance in shaping purchasing behavior, especially for high-involvement and risky purchases in South-East Asia.

NEED OF THE STUDY
Social media has revolutionized food business marketing especially for cloud kitchens lacking physical storefronts. Social media is crucial for creating customer awareness and acquisition. There is a need to address the medium used by customers frequently in search of onlinefood platforms. Apart from this the study addresses the need to identify the 'most effective' social media strategies for influencing consumers and variables responsible for acquiring them. While benefits like convenience, quality, time, price and variety are recognized but research lacks focus on optimal strategies.

SCOPE OF THE STUDY
Cloud kitchens are the most promising business with a small venture capital in the food industry but they rely on technology for their existence. In this context the following framework is designed:

➢ The study specifically examines the key variables like food quality, branding, social media presence, and demographics which influence the customer decision to order from cloud kitchen.

➢ The study also determine the role of social media in creating Customer awareness related to cloud kitchens

OBJECTIVES OF THE STUDY
The present study is taken to test the following objectives:
1. To study the factors that Influence the customer to order food from cloud kitchens.
2. To analyse the role of social media in creating customer awareness.

Hypotheses
Based on the objectives of the study, the following hypotheses were tested:

H_0 **1:** There is no significance association between the factors that influence the customers to order food from cloud kitchen.

H_0 **2:** There is no association between social media and customer awareness related with cloud kitchen.

RESEARCH METHODOLOGY
The present study is based on a convenience method of sampling with a random sample of 500 respondents. The research is empirical in nature using information from primary and secondary sources. A well-designed structured questionnaire is used and the questions are framed based on the objectives of the study. The questions are designed on multiple-category scales and most of the questions are categorical in nature. Descriptive statistical analysis is done on the collected data as a form of pretesting.

The review of literature is taken from reputed journals and articles on the concerned topics. Only the reviews relevant to the study are being considered for drawing the inferences and to find the scope for further research. Boolean operators (AND, OR) were used in searching the literature

relevant to the study. The keywords used for narrowing down the search includes 'Cloud Kitchen', 'Customer awareness' 'Social media' and 'Pervasive influence'.

LIMITATIONS

The study is undertaken with a lot of conscientiousness but still it is not free from cons. These limitations should be considered when interpreting the results.

- This study has narrowed down to aspect of covering reviews of customers preferring cloud kitchen.

- Convenience sampling method is used which may introduce bias and limit generalizability.
- Google form is used for data collection and as such the self-reported questionnaire data is susceptible to inaccuracies
- The study primarily focuses on social media role which is more volatile in nature.

DATA ANALYSIS

The objectives of the study are being tested by the following hypotheses. The hypotheses were framed to study the influence of factors compelling the customers towards cloud kitchen and extent of awareness created by social media in customers. The responses of customers were taken in categories and as such chi-square method is used to test the hypotheses.

H0 1: There is no significance influence of key variables on customer decision to order from cloud kitchens

The following table no.1 shows cross tabulation of factors influencing the customers in descriptive format.

Table No:1 (A) FACTORS * INFLUENCING Cross tabulation			Frequently	Not at all	Often	Rarely	Sometimes	Total
FACTORS	Price	Count	24	20	6	51	42	143
		%	5	4	1.2	10.2	8.4	29
	Quality	Count	7	50	56	64	115	292
		%	1.4	10	11.2	13	23	58
	Variety	Count	16	13	6	25	5	65
		%	3.2	3	1.2	5	1	13
Total		Count	47	83	68	140	162	500
		%	9.4	16.6	13.6	28	32.4	100

Source: Primary data

The above table no.1 (A) shows that the quality is the most significant factor influencing purchasing decisions, with 58.% of respondents considering it important and is classified as 1.4% frequently influenced, 10% not at all influenced, 11.2 % influenced often, 13% rarely influenced and 23 % influenced sometimes. With regard to Price, this has influenced 29 % of customers of 500 followed by variety which influenced 13 % of customers suggeing that consumers prioritize quality over price and variety when making a decision related with ordering from cloud kitchen.

Table No:1 (B) Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	83.962a	8	.000
Likelihood Ratio	91.799	8	.000
N of Valid Cases	500		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 6.11.			

Source: Primary data

As per table no. 1(B) the Pearson Chi-Square value is 83.962 with 8 degrees of freedom (df) and p-value of .000. Since the p-value is less than 0.05, the result is statistically significant. This indicates that there is a strong association between the factors (Price, Quality, Variety) influencing (Frequently, Not at all, Often, Rarely, Sometimes)

Table No:1 (C) Symmetric Measures		Value	Approximate Significance
Nominal by Nominal	Phi	0.410	0.000

	Cramer's V	0.290	0.000
N of Valid Cases		500	

Source: Primary Data

Phi Coefficient (0.410, p = .000) and Cramer's V (0.290, p = .000) indicates a moderate association between the factors (Price, Quality, Variety) influencing (Frequently, Not at all, Often, Rarely, Sometimes) the customers. The p-value (.000) confirms that this relationship is statistically significant.

H0 2: There is no association between social media marketing strategies of cloud kitchens on customer awareness.

Table No:2 (A) Social media * Customer Awareness Cross tabulation			Customer Awareness				Total
			Moderately Consistent	Not at all Consistent	Slightly Consistent	Very Consistent	
Social Media	Facebook	Count	55	25	27	33	140
		%	11	5	5	7	28
	Instagram	Count	44	19	46	21	130
		%	9	4	9	4	26
	Youtube	Count	89	24	76	41	230
		%	18	5	15	8	46
Total		Count	188	68	149	95	500
		%	38	14	30	19	100

Source: Primary Data

The above table no.2 (A) shows that You tube is the most significant Social media platform creating awareness among customers with 46 % of respondents considering it important and is classified as 18% moderately consistent, 5% not at all consistent, 15 % slightly consistent and 8% very consistent in creating awareness. With regard to facebook, it has created 28 % of customers awareness of 500 followed by Instagram which created 26% of awareness in customers related with cloud kitchen.

Table No:2(B) Chi-Square Tests	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	13.952a	6	0.03
Likelihood Ratio	14.511	6	0.024
N of Valid Cases	500		
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 17.68.			

Source: Primary data

As per table no. 2(B) the Pearson Chi-Square value is 13.952 with 6 degrees of freedom (df) and p-value of 0..03. Since the p-value is less than 0.05, the result is statistically significant. This indicates that there is a strong association between social media platforms (Facebook, Instagram,Youtube) and customer awareness (Moderately consistent, Not at all consistent , Slightly consistent, Very consistent) towards cloud kitchen.

Table No:2 (C) Symmetric Measures		Value	Approximate Significance
Nominal by Nominal	Phi	0.167	0.03
	Cramer's V	0.118	0.03

N of Valid Cases	500	

Source: Primary data

Phi Coefficient (0.167, p = 0.03) and Cramer's V (0.118, p = 0.03) indicates a moderate association between social media platforms (Facebook, Instagram, Youtube) and customer awareness (Moderately consistent, Not at all consistent, Slightly consistent, Very consistent) towards cloud kitchen. The p-value (.000) confirms that this relationship is statistically significant.

FINDINGS OF THE STUDY
Factors influencing the customers to cloud kitchen.
Quality (58%) is the most significant factor influencing the customers towards cloud Kitchen and is classifies as 1.4% frequently influenced, 10% not at all influenced, 11.2 % influenced often, 13% rarely influenced and 23 % influenced sometimes.

29 % of 500 customers were influenced by the price towards cloud kitchen.

Variety as factor influenced 13% of customers to make purchase from cloud kitchen.

The Pearson Chi-Square test shows a strong association between the factors influencing the customers towards cloud kitchen and quality among the factors have contributed significantly.

Impact of Social Media on Customer Awareness
YouTube (46%) as a Social media platform was significant in creating awareness among customers and is classified as 18% moderately consistent, 5% not at all consistent, 15 % slightly consistent and 8% very consistent in creating awareness.

Facebook has created 28 % of 500 customer's awareness related with cloud kitchen.

Instagram created 26% of 500 awareness in customers related with cloud kitchen.

The Pearson Chi-Square test shows a strong association between social media platforms and customer awareness towards cloud kitchen, YouTube among the factors have contributed significantly.

CONCLUSION AND SUGGESTIONS
The study has shed light on the factors influencing the customers and role of social media application in creating awareness related with cloud kitchen. Cloud kitchen a niche market had drawn its motivation from the customers who were longing for homely food with the same taste and aroma. It is this grey area target which has made a market for sustainability of cloud kitchen business and at the same time has given opportunities for livelihood. Quality has played a significant role in influencing the customers and YouTube has created effective awareness towards cloud kitchen. It is to explore the avenues for raging of business in a productive and sustainable manner.

SCOPE FOR FUTURE RESEARCH
The findings of this study emphasize the need for a more comprehensive understanding of factors influencing the customers. Future research could use larger samples and mixed methods. Cross-regional studies and platform-specific analyses are needed. It is to analyse the Impact of different social media platform on the minds of customers and at the same time the extent of marketing strategies adopted by cloud kitchens business for sustainability. Apart from this there are numerous factors to be explored for studying the influence of these factors on preference level of customers towards cloud kitchen. The study can be taken to explore the understandings of these relationships which are crucial for customers, policy makers, and employers aiming to mitigate the risks. Objective food analysis determines the role of communication and sustainability.

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