SWIGGY AND ZOMATO: AN ANALYSIS OF COVID SAFETY MEASURES TAKEN IN ONLINE FOOD DELIVERY COMPANIES AND ITS CUSTOMER SATISFACTION RATE

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ABSTRACT

The objective of this study is to analyze the whether the customer are satisfied with the precautionary safety measures provided by online food delivery apps such as a Swiggy and Zomato, to measure the frequency of ordering before and since onset of covid, to find the various factors that will lead to customer satisfaction during the point of delivery, to identify the safety and hygiene measures which will make the customer feel safe. The researcher used the descriptive research design and adopted the convenience sampling method. The sample size is 85 and analysis was done based on data collected from the questionnaire. The tools used for analysis are percentage analysis, Correlation and Chi-square. The analysis of the data was done based on the objective of the study. Each objective of the study was given proper care and tables were arranged accordingly. Based on the findings, the customers were satisfied with the existing precautionary measures taken by Zomato and Swiggy, the safety measures were taken at each stage of the delivery process. From the research it has been found that customers felt satisfied when the delivery agent wore gloves and a medically prescribed face mask and also when it is a contactless delivery. Various suggestions were given to improve the existing safety measures for the handling of food after the delivery of food, to discard the package and to provide sanitation booths at restaurants, to keep a temperature screening at the restaurants for the delivery agents. Hence both Swiggy and Zomato are taking the necessary precautionary

Keyword: - Covid, Customer satisfaction rate, Precautionary safety measures, Hygiene standard

measures to ensure the safety of both the delivery agents and the customers during this pandemic.

1. INTRODUCTION

Digital food ordering and delivery services have emerged as one of the fast-growing sectors of E-Commerce Digital ordering has added to the comfort and convenience level of the people as now order can be done from the restaurants own website or mobile app 24*7 from anywhere and anytime. Currently, a large section of the Indian population is making use of the digital food delivery service like Zomato, Swiggy, Uber eats , food panda apps etc. Online Food ordering provides a set of food choices to the consumer's online, consumers with no trouble can make the order with single click of mouse or by just touching the screen of their mobile devices. This practice is very beneficial as consumers can easily track their orders and management can preserve customer's records and

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proceed with the food delivery system. Amid the outbreak of covid in India, online food delivery apps like Zomato and Swiggy have also come up with various preventive measures that ensure the safety of customers, delivery partners, merchants, and employees. Zomato and Swiggy are mainly educating delivery partners and asking restaurants to maintain food hygiene in the kitchen. The food delivery apps are also ensuring restaurants to follow best practices in kitchens while handling and packaging of the food items. In fact, Zomato has also provided a "hygiene rating" filter option where customers can check the restaurants that maintain maximum hygiene.

Swiggy informed in an email to customers that it is training its delivery partners in respiratory hygiene, the proper method and frequency of hand-washing and identifying symptoms. Delivery partners who face symptoms were being asked to reach out to the company and consult a medical professional. Zomato users would now have the option to tell delivery agents to drop deliveries off instead of handing them over. Delivery agents were being informed about routine government advisories on COVID-19. Swiggy and Zomato have also taken steps to introduce "contactless" food delivery for the safety of its delivery staff and customers. In this study, analysis is mainly focused on satisfaction rate at customer point of view, food ordering frequency before and since onset of the pandemic, factors that are contributing to customer satisfaction during the point of delivery and customer level of satisfaction regarding various existing safety and hygiene measures that has been taken by food delivery apps, Swiggy and Zomato.

2. OBJECTIVE OF THE STUDY

Primary Objective

To analyze the customer satisfaction rate regarding various precautionary measures that has been taken by food delivery apps, Swiggy and Zomato.

Secondary Objective

- To measure the frequency of food ordering before and since the onset of covid.
- To find the various factors that will lead to customer satisfaction during the point of delivery.
- To analyze the customer satisfaction rate regarding various existing safety and hygiene measures.
- To identify the safety and hygiene measures which will make the customer feel safe.

3. NEED FOR THE STUDY

- To find out the most popular digital food delivery
- To evaluate the impact of pandemic on digital food delivery services such as Swiggy and Zomato
- To analyze whether digital food delivery services such as Swiggy and Zomato are following the necessary precautionary safety measures during this pandemic
- To understand the relationship between food delivery apps and the facilities provided by them during the pandemic.
- To analyze the percentage of delivery agents who wore masks and uniforms in both the online delivery apps such as Swiggy and Zomato.

4. RESEARCH METHODOLOGY

Sample Size: 85

Type of Sampling: Convenient Sampling technique

Tools used for Analysis:

- The descriptive approach of study has been conducted to analyse the collected data.
- Percentage Analysis and various Tabular Forms, Pie Chart and Bar Graph have been drawn for illustration using MS Excel.
- The SPSS software has been used to conduct the correlation and chi-square test.
- Manually Weighted Average Method has been done.

Type of Data Used:

- The primary data has been collected by conducting the survey and 85 responses have been collected by the Convenient Sampling technique.
- The secondary data has been collected through analysing various online sites regarding safety measures that need to follow during covid pandemic and the precautionary steps that need to be followed by delivery partners as well as customers.

5. ANALYSIS

5.1 Representation of data using percentage analysis

1. Frequency of ordering food online since the onset of covid

Table -1: Frequency of ordering food online since the onset of covid

S.No	Frequency	Number of	% of Respondents
	P 9 14	Respondents	
1	Frequently	6	7.1
2	Sometimes	25	29.4
3	Rarely	32	37.6
4	Never	22	25.9

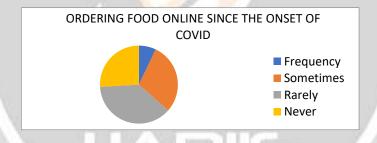


Chart -1: Frequency of ordering food online since the onset of covid

- Source: Primary Source
- Interpretation: It is inferred from the above table that 7.1 % of the respondents frequently order food online since the onset of covid and 29.4% of the respondents order food online sometimes since the onset of covid and 37.6% of the respondents rarely order food online since the onset of covid and 25.9% of the respondents never order food online since the onset of covid.
- Inference: Since the onset of covid, only 6 respondents have said they frequently use food delivery app.

2. Customer choice of food delivery app

Table -2: Customer choice of food delivery app

S.No	Preferred	Number of	% of Respondents
	food delivery	Respondents	
	app		
1	Swiggy	54	63.5

2	Zomato	26	30.6
3	Both	4	4.7
4	Dunzo	1	1.2



Chart -2: Customer choice of food delivery app

- Source: Primary Source
- Interpretation: It is It is inferred from the above table that 63.5 % of the respondents choice where Swiggy, 30.6% of the respondent were chosen Zomato, followed by Both Swiggy and Zomato Users, and Dunzo (4.7% and 1.2% respectively).
- Inference: Majority of the respondents were using Swiggy Application.

3. Customer satisfaction rate for swiggy safety measures

Table -3: Customer satisfaction rate for swiggy safety measures

S.No	Customer	Numbe <mark>r</mark> of	% of Respondents
	Satisfaction	Respondents	
Y.	Rate		4 132
1	Extremely	0	0
100	Dissatisfied	THE RESERVE OF THE PARTY OF THE	
2	Moderately	4	7.4
V	Dissatisfied		
3	Satisfied	17	31.5
4	More	25	46.3
	Satisfied		
5	Extremely	8	14.8
	Satisfied	The same of the sa	



Chart -3: Customer satisfaction rate for swiggy safety measures

- Source: Primary Source
- Interpretation: It is inferred from the above table that 7.4 % of the respondents were moderately dissatisfied with the existing safety measures followed by Swiggy and 31.5% of the respondents were satisfied with the safety measures and 46.3 % were more satisfied with the existing safety measures and 14.8% of the respondents were extremely satisfied with the existing safety measures followed by Swiggy.
- Inference: Majority of the respondents felt more satisfied with the existing safety measures followed by Swiggy.

4. Customer satisfaction rate for Zomato safety measures

Table -4: Customer satisfaction rate for Zomato safety measures

S.No	Customer	Number of	% of Respondents
301 A	satisfaction	Respondents	1 17
10. 1	rate		V AF
1	Extremely	0	0
	Dissatisfied		
2	Moderately	2	7.7
-919	Dissatisfied		and the second
3	Satisfied	6	23.1
4	More	10	38.5
	Satisfied		
5	Extremely	8	30.8
	Satisfied		



Chart -4: Customer satisfaction rate for Zomato safety measures

- Source: Primary Source
- Interpretation: It is inferred from the above table that 7.7 % of the respondents were moderately dissatisfied with the existing safety measures followed by Zomato and 23. 1% of the respondents were satisfied with the safety measures and 38.5 % were more satisfied with the existing safety measures and 30.8% of the respondents were extremely satisfied with the existing safety measures followed by Zomato.
- Inference: Majority of the respondents were more satisfied with the existing safety measures taken by Zomato.

5.2 Correlation Analysis

1. Correlation Analysis between Swiggy's Customer Satisfaction Rate (Existing Safety Measures) and Agent Wearing Mask:

Null hypothesis (H 0): There is no relationship between Swiggy's Customer Satisfaction rate and Agent Wearing Mask

Alternate hypothesis (H 1): There exists a relationship between Swiggy's Customer Satisfaction rate and Agent Wearing Mask

Interpretation: From the above table, it is found that the correlation coefficient r = 0.375.

Inference: From the correlation analysis, it is found that there exist a positive correlation between Swiggy's Customer Satisfaction rate and Agent Wearing Mask.

Table -5: Correlation Analysis between Swiggy's Customer Satisfaction Rate (Existing Safety Measures) and Agent Wearing Mask

	Correlations				
		Customer satisfaction_Swiggy's safety measures	Swiggy's agent_Mask		
Customer satisfaction_	Pearson Correlation	1	.375**		
Swiggy's safety measures	Sig. (2- tailed)		0.005		
1110484108	N	54	54		

Swiggy's	Pearson	.375**	1
agent_Mask	Correlation		
	Sig. (2-	0.005	
	tailed)		
	N	54	54
**. Correlation i	s significant at the	e 0.01 level (2-tailed).	

2. Correlation Analysis Between Zomato's Customer Satisfaction Rate (Existing Safety Measures) and Agent Wearing Mask:

Null hypothesis (H 0): There is no relationship between Zomato's Customer Satisfaction rate and Agent Wearing Mask

Alternate hypothesis (H 1): There exists a relationship between Zomato's Customer Satisfaction rate and Agent Wearing Mask

Interpretation: From the above table, it is found that the correlation coefficient r = 0.415.

Inference: From the correlation analysis, it is found that there exist a positive correlation between Zomato's Customer Satisfaction rate and Agent Wearing Mask.

Table -6: Correlation Analysis between Zomato's Customer Satisfaction Rate (Existing Safety Measures) and Agent Wearing Mask

		Customer satisfaction_Zomato's safety measures	Zomato's agent_Mask
Customer satisfaction_	Pearson Correlation	1	.415**
Zomato's safety measures	Sig. (2- tailed)		0.035
	N	26	26
Zomato's agent_Mask	Pearson Correlation	.415**	1
4	Sig. (2- tailed)	0.035	P. P. Control of the
	N	26	26

5.3 Chi-Square Test

Chi Square Test for Ordering of Food Online Before and Since the Onset of Covid:

Variables Chosen

- Ordering food online before_covid
- Ordering food online since covid

Null hypothesis (H 0): There is no relationship between ordering of food online before and since the onset of covid

Alternate hypothesis (H 1): There exists relationship between ordering of food online before and since the onset of covid

- Level Of Significance: $\alpha = 0.05$
- From the calculation, it is found that Chi-Square from the Calculation= 31.270.
- From the above table, it is found that Chi-Square = 16.919.

Inference: From the Chi-square test, it is inferred that the table value is less than the calculated value. Hence we reject null hypothesis. There exists relationship between ordering of food online before and since the onset of covid.

Table -7: Crosstabulation for Ordering of Food Online Before and Since the Onset of Covid

ordering	ordering food online before_covid * ordering food online since _covid Crosstabulation						
Count		ordering food online since _covid				Total	
1 7		Frequently	Sometimes	Rarely	Never	\	
ordering food online	Frequently	1	8	7	5	21	
before_covid	Sometimes	5	9	6	1	21	
	Rarely	0	7	19	11	37	
	Never	0	1	0	5	6	
7/1/	Total	6	25	32	22	85	

Table -8: Case Processing Summary for Ordering of Food Online Before and Since the Onset of Covid

	V	Case P	rocessing Su	mmary	3 7	AV
	10		Cases		20 10	Service Stanford
Valid			Missing			Total
=	N	Percent	N	Percent	N	Percent
ordering food online before_covid * ordering food online since _covid	85	100.0%	0	0.0%	85	100.0%

Table -9: Chi-Square Test for Ordering of Food Online Before and Since the Onset of Covid

	CI C T	
	Chi-Square Tests	

Count	Value	df	Asymptotic Significance (2- sided)
Pearson Chi-Square	31.270 ^a	9	0.000
Likelihood Ratio	32.277	9	0.000
Linear-by- Linear Association	8.129	1	0.004
N of Valid Cases	85		

a. 7 cells (43.8%) have expected count less than 5. The minimum expected count is .42.

5.4 Weighted Average Method

1. Swiggy Customer Satisfaction Rate Evaluation using Weighted Average Method:

Table -10: Swiggy Customer Satisfaction Rate Evaluation using Weighted Average Method

Satisfaction Rate	No of respondent						
	Extremely Dissatisfied	Moderately Dissatisfied	Satisfied	More Satisfied	Extremely Satisfied	Weighted Average	Ranking
Wearing Mask	0	1	17	10	26	14.9	I
Contactless delivery	2	3	19	18	12	13.1	II
Delivery process	0	3	23	19	9	13.1	III

Result for Customer Satisfaction Rate In Swiggy:

Wearing Mask: 14.9Contactless Delivery: 13.1Delivery Process: 13.1

Inference: From the above table, it is inferred that majority of the respondents are satisfied with wearing mask (ranked at 1st Rank) and followed by contactless delivery and delivery process (ranked at 2nd Rank).

6. FINDINGS

- Findings indicated that between Swiggy and Zomato, Swiggy is the most popular and preferred app among the digital food delivery service apps amid the pandemic.
- Among the respondents, it was found that nearly 89.4% of the respondents order food online.
- A finding indicates that before the onset of covid, 24.7% of the respondents have frequently ordered food online whereas since the onset of covid, only 6 % of the respondents have frequently ordered food online.

- A finding indicates that 63.5 % of the respondents choice where Swiggy, 30.6% of the respondent were chosen Zomato, followed by Both Swiggy and Zomato Users, and Dunzo (4.7% and 1.2% respectively).
- Findings indicates that 46.3 % were more satisfied with the existing safety measures carried out by Swiggy and 38.5 % were more satisfied with the existing safety measures carried out by Zomato.
- From Correlation analysis, it is apparent that there exists a positive correlation between Customer Satisfaction rate and Agent Wearing Mask for both Swiggy as well as Zomato. This proves that the customer is satisfied with the existing safety measure, Agent wearing mask.
- From the Chi-square test, it is inferred that the table value is less than the calculated value. Hence we reject the null hypothesis. There exists a relationship between ordering food online before and since the onset of covid. Therefore, it is apparent that due to the effect of covid the usage food delivery apps has been reduced.
- From the Swiggy customer satisfaction rate evaluation using weighted average method, it is inferred that majority of the respondents are satisfied with wearing mask (ranked at 1st Rank) and followed by contactless delivery and delivery process (ranked at 2nd Rank).
- Customers will feel satisfied if the delivery agent wore gloves and a medically prescribed face mask.

7. SUGGESTIONS

• From the analysis, 61.1 % of the respondents had mentioned that instructions for handling of food after delivery by Swiggy and 69.2 % of the respondents had mentioned that instructions for after delivery of food by Zomato was given. Both the online delivery platforms can follow the below instructions for customers for handling of food after delivery.

Safety Measures for handling of food after delivery

- Heat the Food
 - It is always recommended to reheat your delivered food before consumption, to remove all possible chances of viral infection.
 - Refrigerated leftovers must always be reheated before eating.
 - Food should not be stored for more than three days in the fridge. Anything older than that has to be discarded directly.
- Discard the packages
 - According to a study, it was found that the virus can survive on cardboard surfaces for up to 24 hours and around 2-3 days on plastic.
 - It is recommended that one discard all the boxes, and packets once the food is delivered. Transfer the food to a clean plate or bowl immediately.
 - An added precaution would be to eat with own spoons and forks.

Safety Measures for the delivery agents

- Sanitisation booths at restaurants: At partner restaurants, hand sanitisation stations can be set up at the order pick-up point for the riders to wash their hands before they take the packets for delivery. All restaurants also have temperature guns for checkup to ensure they pick the order only when the body temperature is normal.
- Temperature tracker: The health status of the delivery partner has become one of the major
 concerns for customers while ordering food. To address this, Swiggy and Zomato can make use of
 a temperature tracker on their app in order to inform customers about the body temperatures of all
 the stakeholders right from the cook to the delivery boy.

To improve the customer satisfaction in online food delivery platforms during covid

 Adapt to Digital Payments: As cash exchange can become one of the reasons for transmitting Coronavirus infection, urging the customers to pay online using a debit or credit card, Google payments would reduce the change of COVID-19 spread.

- Adopt Non-Contact Delivery at Door Steps: Introducing drop-off meal delivery options to your customers will help you maintain safety and also gain your customer's trust. Opt for a safe No-Contact Delivery than a doorstep service to safeguard your workers as well as your customers from getting affected.
- Double-layered packaging and one-time-use utensils and cutlery can be implemented
- Sanitizing kitchens: Customers are majorly concerned about the hygiene condition of places where the food is made and packed. Swiggy and Zomato can take measures to dehumidify and sanitize all the surfaces, thus preventing the growth of the virus
- Safety badges: Swiggy rolled out safety badges for those who comply with highest standards of hygiene. The badges will be given to restaurants following best practices and that have features like temperature control, masks, sanitation after 4 hours and safe packaging. Zomato can also roll out safety badges as Swiggy.

8. CONCLUSIONS

The study was mainly conducted to analyse the customer satisfaction on the various precautionary methods followed by the online food delivery apps like Swiggy and Zomato during this pandemic. The study indicated that there was a major impact on food delivery apps post pandemic as the number of customers ordering food online frequently had drastically reduced. Swiggy and Zomato have adopted several delivery practices to ensure the safety and hygiene of both the riders and the consumers, from providing contactless delivery options to incorporating sanitization measures. For all prepaid orders, customers can select the contactless delivery option on the app. The rider will leave the package at the doorstep and intimate the customer. This way the customer can avoid any contact with the rider. Swiggy has also introduced Cash-on-delivery disabled can ben done to minimize contact between the customer and the delivery partner. This means customer needs to make the payment online. It can be concluded that both Swiggy and Zomato are taking the necessary precautionary measures to ensure the safety of both the delivery agents and the customers during this pandemic.

9. REFERENCES

- [1]. Aggarwal, S., & Srivastava, M. K. (2019). A grey-based DEMATEL model for building collaborative resilience in supply chain. International Journal of Quality & Reliability Management.
- [2] Costell, E., Tárrega, A., & Bayarri, S. (2010). Food acceptance: The role of consumer perception and attitudes. Chemosensory Perception, 3(1), 42–50.
- [3]. Covello, V. T. (1983). The perception of technological risks: A literature review. Technological Forecasting and Social Change, 23(4), 285–297
- [4]. Cronin, J. J., Jr, Brady, M. K., & Hult, G. T. M. (2000). Assessing the effects of quality, value, and customer satisfaction on consumer behavioral intentions in service environments. Journal of Retailing, 76(2), 193–218
- [5]. J. Das, Consumer Perception towards Online Food Ordering and Delivery Services: An Empirical Study, Journal of Management (JOM) Volume 5, Issue 5, pp. 155–163, September-October 2018.
- [6] H. Lan, L. Yanan, W. Shuhua, —Improvement of Online Food Delivery Service Based on Consumers' Negative Comments, Canadian Social Science, Vol. 12, No. 5, pp. 84-88, 2016
- [7] M. Gupta, —A Study on Impact of Online Food delivery app on Restaurant Business special reference to Zomato and Swiggy, IJRAR- International Journal of Research and Analytical Reviews, Volume 6, Issue 1, Jan-March 2019
- [8] A. Saxena, —An Analysis of Online Food Ordering Applications in India: Zomato and Swiggy, International Journal of Research in Engineering, IT and Social Sciences, ISSN 2250-0588, Volume 9 Special Issue, 2019.
- [9] Ishaswini, N. & Datta, S.K. (2011). Pro-environmental Concern Influencing Green Buying: A Study on Indian Consumers. International Journal of Business and Management, 6(6).

[10] Kapoor, A. P., & Vij, M. (2018). Technology at the dinner table: Ordering food online through mobile apps. Journal of Retailing and Consumer Services, 43, 342-351

