# A Study of Online Food Delivery Services During Covid-19 Pandemic

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Abstract - The popularity of online food ordering and delivering services is steadily growing. Technology has played a key role in the food delivery service during the covid-19. Today more people are getting connected through mobile application and they are ready to trade through it. Companies have changed their traditional business a strategy into online marketing to suit customer needs and taste any time. This research paper aims to discuss the study of online food delivery services during covid-19. A questionnaire was conducted to collect primary data and secondary data the study sample consisted of 109 respondents. The secondary data was collected from various books, journals, news magazine and through internet sources, newspapers. The research is focused on the study and analysis of data collected from all those users who are ordering food online during covid-19. The purpose is to know what the influencing factors are, their perceptions, needs, positioning of various attributes of different online portals in their mind and overall customer satisfaction towards online food delivery services during covid-19. The finding of the study is that in this pandemic situation, most of the people are receiving their orders on time and Post covid-19, food delivery services improved in all possible aspects.

*Index Terms* - covid-19, customer satisfaction, food quality online food delivery, safety measures.

# INTRODUCTION

COVID-19, a coronavirus that appeared in Wuhan, China, has brought the global economic industrial equipment to a halt as well as mass social life. The spread of infection has had a negative impact on the macroeconomic situation and the residential home economy, especially among vulnerable citizens. It will have an impact on GDP and job opportunities, as well as increased undernourishment, birth defects, premature death, and poverty levels. COVID-19 infection is transmissible and is spread primarily

through droplets produced when an infected person coughs or sneezes, as well as saliva or nasal discharge droplets. The lockdown is a crucial step in preventing the virus from spreading further. People may have limited access to essential services such as regular healthcare, adequate food, and limited recreation and leisure options, as well as limited mobility. It may also have an impact on food safety, consumer behavior, and revenue generation.

The WHO Emergency Committee declared a global health emergency on January 30, 2020, due to an increase in the number of cases reported in Chinese and international locations to differentiate and comprise the spread of the new COVID-19, the Italian management planned on more stringent containment measures in early March 2020: a ban on extreme events and events, as well as a ban on meeting up for no reason, were imposed across the entire national territory. Two major influences are staying at home (which includes digital education, smart working, and limiting outdoor and in-gym physical activity) and stockpiling food due to grocery shopping restrictions. In addition, the disruption of work routine caused by the quarantine may lead to boredom, which is linked to increased energy consumption.

SWOT analysis of online food delivery services
The SWOT analysis is the key to establishing a stable organization. Such an analysis will be extremely beneficial to your company. It aids in the comprehension of your objectives, goals, and ambitions. In order for your delivery service company to succeed, you must conduct a SWOT analysis as an executive. However, keep in mind that the SWOT analysis of a delivery service company is frequently quite different from that of other companies. It is not possible to paint everything the same color.

## Strengths

- Delivery service providers have certain advantages that they can always take advantage of. However, your SWOT analyst must first identify these strengths.
- The most important of these is customer loyalty.
   A person does not need the services of a delivery company every day.
- Another significant benefit of using a delivery service company is that it is always available.
   Most delivery services allow customers to order products 24 hours a day, seven days a week, usually through their website.

#### Weakness

- Every delivery service has flaws of its own. Make certain that your SWOT analysis includes them.
- The world is becoming more reliant on technology. Delivery companies are working hard to adapt to new technology. Those who cannot adapt fall behind.
- For example, if your delivery service company does not have a proper IT department, your delivery service website will most likely crash on occasion.
- Opportunity
- Opportunities in a transportation company are frequently presented as a result of external factors. Acquisition synergies have the potential to transform the delivery service industry.
- In addition, opportunities will emerge in the form of innovations
- Your creative and innovative abilities will propel your delivery service to new heights. Innovative products and services are always in high demand.

# Challenges

- Danger lurks around every corner for delivery service companies. It is critical that your SWOT analyst anticipates these threats and assesses the potential damage they can cause.
- When hundreds of thousands of people are protesting and rioting in the streets, it becomes difficult to deliver goods from one part of the country to the other.
- Finally, keep in mind your customers' changing preferences. Delivering a popular type of product could earn you a lot of money.

## **OBJECTIVES OF THE STUDY**

- 1. To identify the customer satisfaction level towards online food services
- 2. To know the satisfaction level towards the online food app with reference Zomato and Swiggy.
- 3. To know the consumer preferences on online food ordering services provider.
- 4. To study the consumer expectations and awareness of online food delivery services.

#### LITERATURE REVIEW

A research on the changing market for food delivery indicates that online's penetration of the total fooddelivery market broke 30 percent in 2016. We believe penetration rates will grow further as the market matures, eventually reaching 65 percent per year (Carsten Hirschberg et al 2016). According to the study of Girish Deore and Pranav Shete (2016) they found that online food ordering is increasing in Baner area in relation to the online food ordering but acceleration of online food ordering is not as rapid as compared to other areas. Convenience of online food ordering due to lack of time is the prime reason for ordering food. Jyotishman Das (2018) has undertaken an empirical study on "Consumer perception towards online food ordering and delivery services". The objective of her study is to know the influencing factors, perceptions, needs, positioning of various attributes of different online portals and overall satisfaction towards online food delivery services. The data has been analysed using percentage analysis and reliability test. The study reveals that consumers mostly preferred Zomato followed by swiggy because of their time delivery and better discounts. According to the study of Sheryl E. Kimes she stated that the online ordering indicate that perceived customer control and convenience are the most important things driving consumer intent to use online ordering. As operators think the convenience associated with online ordering is the most important factor affecting customer usage, but customers feel that perceived control is more important.

#### RESEARCH METHODOLOGY

Data collection: There are many forms of data collection mail, internet, data base, questionnaires,

interviews, etc. which are all related to research, However, there are conditions to which specific data collection method should be approached, depend on the way they will be used, will affect how the data will be collected. In this section data collection is divided into two parts: primary and secondary data collection.

#### Sources of data

Primary data: The primary data is collected from online food delivery services during covid-19 with the help of a well-designed questionnaires will be distributed to respondents and collected the necessary information required for study.

- Primary data: sample size: 109 respondents
- Statistical technique regression,
- Questionnaire: Using online Google Docs.

Secondary data: Secondary data is collected through

- Journals
- Articles
- Various books
- Newspapers
- Magazine and through internet sources.
- Secondary data: research articles.
- Statistical tool: SPSS (statistical package for the social science).

#### Research methodology

- Descriptive statistics.
- Regression

Descriptive statistics: Descriptive statistics is a branch of statistics that aims at describing a number of features of data usually involved in study. The main purpose of descriptive statistics to provide a brief summary of the same sample and the measures done on particular study.

#### Statistics

	Age	Gender	Occupation	Order Food online	Prefer online food delivery	Company Customer Service
N Valid	109	109	109	109	109	109
Missing	0	0	0	0	0	0
Mean	1.814	1.652	1.452	4.132	1.134	1.929
Std.	.4699	.5337	.3140	.8309	.5742	1.1584
Deviation						

Regression: Regression analysis is a powerful technique used for predicting the unknown value of

variable from the value of two or more variables. It also called as predictors. Method used for studying the relationship between a dependent variable and two or more independent variables. It also called as predictors.

# Data analysis and Interpretation

Table.1 Gender

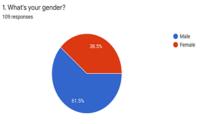
		Frequency	Percent	Valid	Cumulative
				Percent	Percent
ſ	Valid	50	48.4	48.4	48.4
١	1.0	59	51.6	51.6	100.0
1	2.0	109	100.0	100.0	
	Total				

Table.2 Age

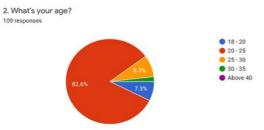
	Frequency	Percent	Valid	Cumulative
			Percent	Percent
Valid	83	75.8	75.8	75.8
1.0	14	12.6	12.6	88.5
2.0	12	11.5	11.5	100.0
3.0	109	100.0	100.0	
Total				

# Research methodology

- Descriptive statistics.
- Regression



Interpretation: As per chart, the majority of people ordering food on during covid-19 are male (61.5%).and female (38.5%).



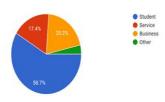
Interpretation: As per chart, the majority of 20-25 age people's (82.6%) are ordering food online in during covid-19.

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Table 3: occupation

	Frequency	Percent	Valid	Cumulative
			Percent	Percent
Valid	25	21.4	21.4	21.4
1.0	45	42.9	42.9	64.3
2.0	39	35.7	35.7	100.0
3.0	109	100.0	100.0	
Total				





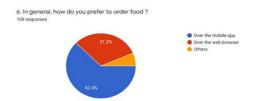
Interpretation: As per chart, the majority of the students (58.7%) are ordering food online in during covid-19.

Table 4: Order food online

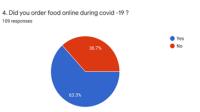
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.0 2.0 Total	35 74 109	31.9 68.1 100.0	31.9 68.1 100.0	31.9 100.0

Table 5: Prefer online food delivery

	Frequency	Percent	Valid	Cumulative
			Percent	Percent
Valid	60	59.4	59.4	59.4
1.0	17	12.9	12.9	72.3
2.0	12	8.4	8.4	80.7
3.0	10	9.6	9.6	90.4
4.0	10	9.6	9.6	100.0
5.0	109	100.0	100.0	
Total				



Interpretation: As per the chart, more prefer the peoples 62.4% are over the web browser used in during covid-19.

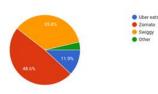


Interpretation: As per the chart, 63.3% of the respondents ordered food online and 36.7% didn't.

Table 6: Company Customer Service

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1.0 2.0	15 90	11.4 85.7	11.4 85.7	11.4 97.1
3.0 Total	4 109	2.9 100.0	2.9 100.0	100.0

12. Which company customer service is good



Interpretation: As per the chart, 48.6% of the respondents prefer Zomato to order food ,35.8% prefer swiggy and rest 11.9% uber eat

# Regression

# Model Summary

Ī	Model	R	R Squar e	Adjusted R	Std Error of	Change Statistics					
				Square	the Estimate	R Square	F Change	df1	df2	Sig. F	Durbin
						Change				Change	Watson
	1	.425a	.376	.354	.4345	.376	13.79	4	102	.000	2.485

a. predictors: (Constant), MENU, QUANTITY, BILL.

b. Dependent variable: QUALITY.

Coefficients								
Model		Unstandardized Coefficients		Standardized Coefficients	Т	Sig.		
		В	Std. Error	Beta				
	(Constant)	4.864	.529		9.187	.000		
1	QUAN	.152	.164	.077	.928	.355		
1	BILL	125	.183	082	684	.495		
	MINU	.057	.170	.029	.336	.737		

# a. Dependent variable: QUALITY

Residuals Statistics								
	Minimum	Maximum	Mean	Std. Deviation	N			
Predicted Value	4.00	4.97	4.55	.171	109			
Residual	-3.635	.804	.000	.979	109			
Std. Predicted Value	-3.210	2.464	.000	1.000	109			
Std. Residual	-3.650	.807	.000	.983	109			

Dependent variable: QUALITY

Interpretation: As w-e find the results run anova between the QUALITY, BILL and MENU is significant and R- square value is also significant and also all independent variables show positive variance towards dependent variable.

#### **FINDINGS**

- Almost 3/4th of the respondents ordered food and found it safe during covid-19 lockdown and most of the people prefer online payment mode
- Majority are satisfied with safety precautions being taken by food delivery service providers as well as It is found that the majority ordered food on online are males, it is also found that food delivery services like SWIGGY, Zomato and dominos following all required safety measures. Even in this pandemic situation, most of the people are receiving their orders on time.
- Post covid-19, food delivery services improved in all possible aspects. According to the study, food quality (FQ) has a significant impact on customer satisfaction (CS), which in turn influences customer loyalty (CL) indirectly.

# **CONCLUSION**

The food delivery market is still in its infancy, however with the swiftly increasing popularity of Swiggy, Zomato and other such online food delivery system such as Uber Eats, food Panda etc. It is a highly profitable market. Through primary data that has collected. It can be concluded that the number of food deliveries have increased due to the rising popularity of food delivery system. In Covid-19 pandemic most of the people order food from restaurant at least a one or two times in each day fairly regular basis. Even through Zomato covers more restaurants, Swiggy has emerged as the most preferred and most popular food delivery system. In terms of features and offers, Swiggy far outperforms Zomato in almost all fields

except for better delivery times and refund policies. People have started ordering more and more food from food Delivery systems rather than visiting restaurants. Through secondary data that has been collected it can be concluded that while a majority of respondents think that Swiggy covers more restaurants secondary data is in contrast. It is Zomato that has better restaurant coverage. This has enabled Swiggy to become the fastest company to reach good status in Covid-19 pandemic.

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