A STUDY ON THE PERCEPTION OF CUSTOMERS TOWARDS ORDERING FOOD ONLINE DURING COVID-19PANDEMIC WITH REFERENCE TO MANGALORE

ANUPABALIGA B. S.
Assistant Professor
Besant Women's College
Mangalore

SHAILAKAMATH
Assistant Professor
Besant Women's College
Mangalore

Abstract:

The Coronavirus Pandemic has disrupted major economic activities. Many of the businesses was being brought to a standstill again by the second wave of coronavirus in India. Perhaps the restaurant and food service industry are one among the most affected. They were closed due to the Covid-19 pandemic lock-down. Consumers too avoid the visiton the grounds of health and safety measures.Thebiggest change prompted by the pandemic has been the shift from on-premises dining to off-premises dining. Most restaurants have realized the need for investing in technology as people prefer to ordering food online or pick it up at the restaurant during pandemic. An attempt has been made in this study to understand the perception of customers towards online food ordering. It examines the factors influencing the decision of customers to prefer on-premises dining or online food ordering and also focus the challenges faced during ordering food online.

Keywords: Coronavirus Pandemic, Restaurant, Ordering Food Online, Perception, Challenges.

Introduction:

The Covid-19 Pandemic brought about a halt to most of the economic activities and millions of people lost their jobs and income. Food and restaurant service is one among the most hit industry, as dine-in service was stopped during lock-down. People too were hesitant to visit restaurants on the grounds of health and safety measures. This has enabled the restaurants to shift from on-premises dining to off-premises dining and the use of technology for ordering food online or pick it up at the restaurants.

The evolving advancement in technology and access to internet facilities has brought about a massive change in e-commerce activities and in the lifestyle of people as well. There are several factors like changing lifestyle, hectic schedule, increasing proportion of working women, growing disposable income, rising digitalization among millennial, change in eating habits that has led to the popularity of the online food delivery system which had gained its popularity probably from 2015. The online food delivery in Indian food market was about 15% as of 2019 and is expected to reach nearly 30% at compound annual growth rate (CAGR) as per GLG, World's Insight Network.

Furthermore, with the lockdowndue to covid-19 pandemic, there has been a positive impact on the online food delivery industry. It has also resulted in contactless delivery services and cashless payment system.

Review of Literature:

TelukdarieArnesh et al. (2021) reviews the global literature and South Africa FoodBev companies have responded in alignment to the trends in most areas. The analysis indicates that a significant number of companies predict some future impact of Covid-19 and companies need to structure finances to survive, access government grants and other government incentives.

NoorazlinRamli et al. (2021) reveals that as per the study

majority of the respondents have a positive opinion towards the use of electronic food ordering services due to the factors like perceived convenience, customer control, attractive marketing and eagerness to use technology during covid-19. It is user-friendly and can get sufficient information to order. During the challenging time, online ordering helps the local food businesses by providing them a source of revenue, thus avoiding permanent closures.

Shanmugam Siva et al. (2021) aims to analyze the impact of the Covid-19 pandemic on customers who order food online. 70.9% drop has been found in the frequency of food ordered online during this study period. It revealed that compared to women, men place more food orders per month and dinner is the most ordered meal among all age categories. Among the factors, taste is the most influencing factor followed by hygiene, food quantity, discount and offers thatthe customers consider while selecting a restaurant online.

MehroliaSangeeta et al.(2021) in the study implies that the customers who purchased food through online food delivery services found less perceived threat with high frequency of purchase, high perceived benefits and high product involvement, which are considered as the contributing factors of the inter-group differences.

Pal Debajyoti et al. (2021) in the study shows that the satisfaction of the customers is the greatest interpreter of loyalty and food quality. Information design is one among the mobile application attributes which has the highest impact on both satisfaction and loyalty followed by navigational and visual design.

Objectives:

- To understand the factors influencing the decision of customers to prefer on-premises dining or online food ordering.
- To examine the challenges faced by the customers while ordering food online.
- To know the level of satisfaction of customers towards online food ordering service.

Research Methodology:

Primary and Secondary data are used to collect the information for the study.

Primary data

The data is collected using a structured questionnaire prepared in google form. The data has been collected from 78 respondents who are working in Mangaluru city. Convenience sampling method has been used tocollect the data from the respondents. The data collected from the respondents are coded, tabulated and described using tables, charts and percentagesto arrive at findings and conclusion.

Chi-square test is being used for analyzing the data which enables to find out the discrepancy between the observed frequencies and expected frequencies.

Chi-square = $(O-E)^2/E$

Where O = Observed Frequency, E = Expected Frequency

Secondary data

The data is collected from the articles published in various e-journals, available literature and websites.

Limitations of the study:

- The study is confined to the respondents working in Mangaluru city.
- Collection of detailed information is limited due to the time constraint.
- There might be several factors influencing the decision of customers while they prefer different online restaurants, but this study is limited to only those factors influencing the customers to prefer on-premises dining or online food ordering in general.
- The sample size is not large enough to generalize the result.

Online Food Delivery System:

Online food delivery system enables the customers to order food online through the software that allows restaurants to accept and receive the same at their doorstep. While browsing the internet sitting at their home or workplace, customers have wide variety of cuisines to choose, offered by different restaurants. Earlier food was ordered by making a call to the restaurants and had to drive to the place, sometimes wait for the food to be prepared and then collect it. Now the restaurants have switched to online ordering where they can create a website or an app or both that will enable the customers to order at ease. Customers can get familiar with add-on deals and offers that the restaurants provide. Customers can order anytime,

from anywhere using mobile devices even during the times like meetings, busy schedule, guests at home and so on. Restaurants follow an order management system that notifies the staff regarding the order through mail or SMS streamlining the entire ordering process from the placing of order to final delivery. This enables quick execution of order. At the same time if the restaurants have limited seating capacity, execution of online order can reach a large number of customers without any additional investment on infrastructure.

Data Analysis and Interpretation:

Table 1: Showing the gender of the respondents:

Gender	No. of Respondents	Percentage (%)
Male	21	27
Female	57	73
Total	78	100

Source: Primary Data

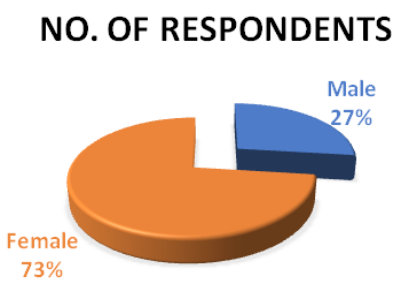


Chart 1: Showing the gender of the respondents

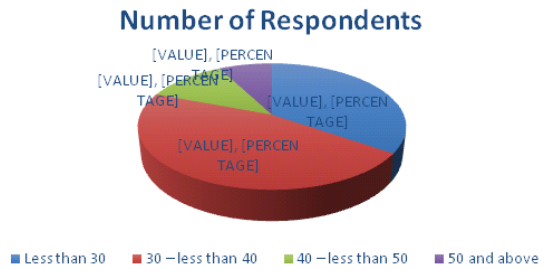
Interpretation:The above chart shows that out of the total respondents 73% are females and 27% are male respondents.

Table 2: Showing the age of the respondents:

Age of the respondents	Number of Respondents	Percentage (%)
Less than 30	27	35
30 – less than 40	36	46
40 – less than 50	09	11
50 and above	06	08
Total	78	100

Source: Primary Data

Chart 2: Showing the age of the respondents



Interpretation: The above chart indicates that 46% of the respondents belong to the age group of 30 to less than 40 years, 35% respondents are below 30 years and 11% respondents are between 40 to 50 years. 8% of them are of the age 50 and above.

Table 3: Showing the salary per month of the respondents:

Salary per month	Number of Respondents	Percentage (%)
Less than 20,000	27	35
20,000 to less than 40,000	36	46
40,000 to less than 60,000	09	11
60,000 and above	06	08
Total	78	100

Source: Primary Data

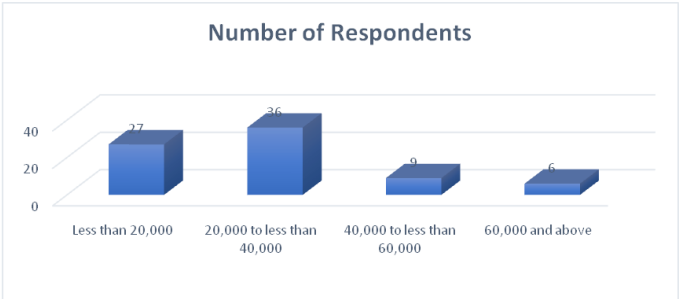


Chart 3: Showing the salary per month of the respondents

Interpretation: From the above chart, it is clear that 46% of the respondents earn between 20,000 to less than 40,000 income per month, 35% of them earn less than 20,000. While 11% respondents are between 40,000 to less than 60,000 income level and 8% earn 60,000 and above.

Table 4: Showing the preference of respondents for having food in restaurants or ordering online before pandemic:

Preferences	Number of Respondents	Percentage (%)
Restaurants	36	46
Ordering food online	24	31
In-car dining	-	0
All the above	18	23
Total	78	100

Source: Primary Data

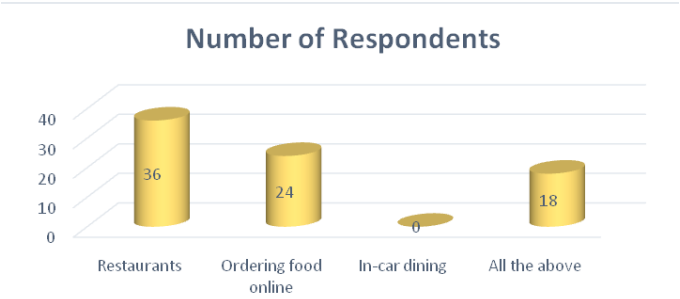


Chart 4: Showing the preference of respondents for having food in restaurants or ordering online before pandemic
Interpretation: The above chart reveals that majority (46%) of the respondents preferred restaurants for having food before pandemic, while 31% preferred ordering food online. 23% of the respondents preferred all, that is restaurants, ordering food online, in-car diningto have food before pandemic.

Table 5: Showing the frequency of ordering food online before pandemic:

Frequency of ordering	Number of Respondents	Percentage (%)
More than 5 times a week	-	0
3 to 5 times a week	06	8
Less than 3 times a week	18	23
Once a month	39	50
Never	15	19
Total	78	100

Source: Primary Data

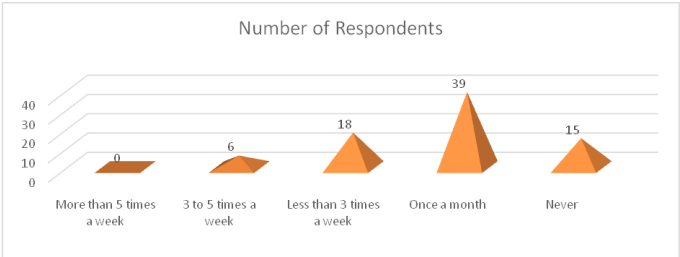


Chart 5: Showing the frequency of ordering food online before pandemic

Interpretation: The above chart indicates that 50% of the respondents preferred to order food online once a month before pandemic, 23% respondents ordered less than 3 times a week while 8% of the respondents ordered 3 to 5 times a week before pandemic.

Table 6: Showing the frequency of ordering food online during pandemic:

Frequency of ordering	Number of Respondents	Percentage (%)
More than 5 times a week	09	11
3 to 5 times a week	06	8
Less than 3 times a week	24	31
Once a month	39	50
Total	78	100

Source: Primary Data

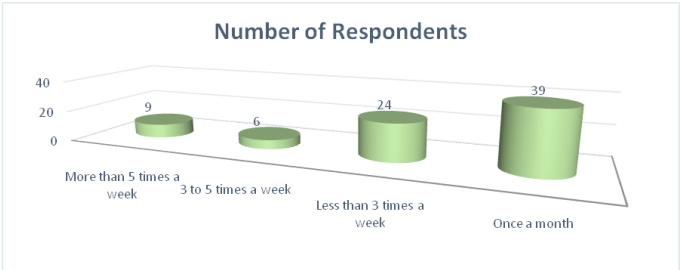


Chart 6: Showing the frequency of ordering food online during pandemic
Interpretation: From the above chart, it is clear that 50% of the respondents do order food online once a month during pandemic, 31% order less than 3 times a week while 11% of therespondentsorder food online more than 5 times a week and 8% respondents order food 3 to 5 times a week through online app during pandemic.

Table 7: Showing the factors influencing the respondents to choose online food during pandemic:

Factors	Number of Respondents	Percentage (%)
Ease in ordering	33	22
Convenience	42	29
Saves time	42	29
Safety	21	14
Others	09	6

Source: Primary Data

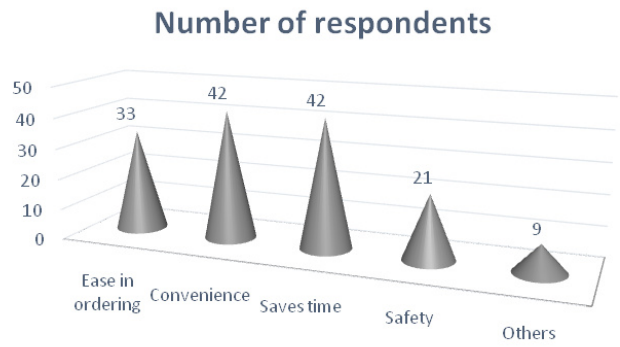


Chart 7: Showing the factors influencing the respondents to choose online food during pandemic

Interpretation: As seen in the above chart, 29% of the respondents consider convenience and saving in time are the factors that influence them to choose online food during pandemic. 22% of them are of the perception that ease in ordering influences the respondents to order food online while 14% are of the opinion that safety influences themto order food online and 6% consider others factors.

Table 8: Showing factors enabling respondents to prefer food in restaurants rather ordering online

Factors	Number of respondents	Percentage (%)
Convenience	03	4
Meet friends, relatives and discuss	27	34
Break from work/refresh	42	54
Habit/used to	03	4
Others	03	4
Total	78	100

Source: Primary Data

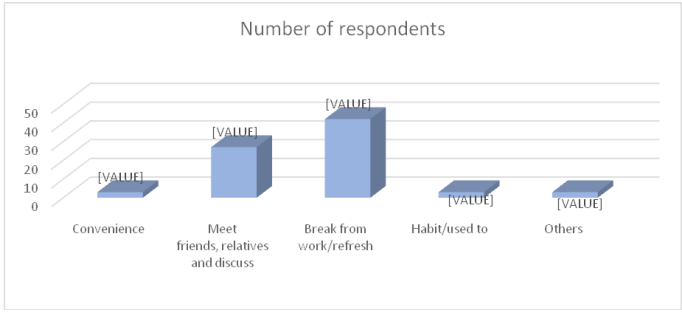


Chart 8: Showing factors enabling respondents to prefer food in restaurants rather ordering online

Interpretation: 54% of the respondents prefer food in restaurants to get a break from work or to refresh. 34% respondents would like to meet their friends, relatives and discuss by visiting restaurants rather than ordering online. 4% of the respondents are of the perception that factors like convenience, as a habit and others factors enable them to prefer food in restaurants.

Table 9: Showing the challenges faced by the respondents while ordering food online during pandemic

Challenges	Number of Respondents	Percentage (%)
Network issue	18	23
Site is slow	06	8
Service is poor	03	4
Delivery time is more	39	50
Lack of knowledge	0	0
Others	12	15
Total	78	100

Source: Primary Data

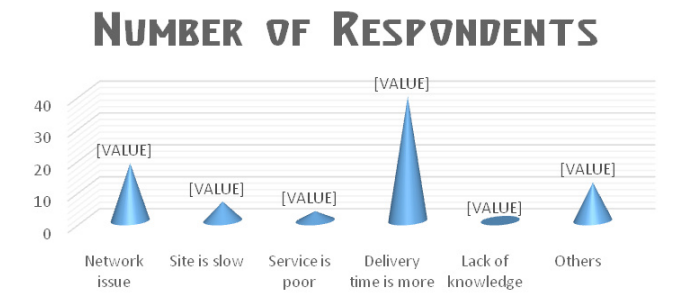


Chart 9: Showing the challenges faced by the respondents while ordering food online during pandemic

Interpretation: From the above chart, it is clear that 50% of the respondents consider that it takes more time to get the delivery of food ordered online. 23% of them say network issue is one of the challenges faced by them while 15% mention other challenges. 8% consider network issue and 4% consider service is poor as the challenges faced by them.

Applying Chi-square Test

H_0 :There is no significant difference between the age and level of satisfaction towards ordering online food during pandemic

Table 10: Showing the level of satisfaction towards ordering online food during pandemic

Level of satisfaction	Less than 30	30 to less than 40	40 to less than 50	50 and above	Total	Percentage (%)
Extremely satisfied	6	3	-	-	9	11
Satisfied	18	21	3	3	45	58
Neutral	3	12	3	3	21	27
Dissatisfied	-	-	-	-	0	0
Extremely dissatisfied	-	-	3	-	3	4
Total	27	36	9	6	78	100

Source: Primary Data

Table 10.1 showing Observed Frequency and Expected Frequency

	Observed Frequency				Expected Frequency			
Level of satisfaction	Less than 30	30- less than 40	40- less than 50	50 & above	Less than 30	30- less than 40	40- less than 50	50 & above
Extremelysatisfied	-	3	-	-	3.12	4.15	1.04	0.69
Satisfied	18	21	3	3	15.58	20.77	5.19	3.46
Neutral	3	12	3	3	7.27	9.69	2.42	1.62
Dissatisfied	-	-	-	-	0	0	0	0
Extremely dissatisfied	-	-	3	-	1.04	1.38	0.35	0.23

Table 10.2Showing the calculation of S«² value

O	E	(O – E)	$(O – E)^2$	$(O – E)^2 / E$
6	3.12	2.88	8.2944	2.6585
18	15.58	2.42	5.8564	0.3759
3	7.27	-4.27	18.2329	2.508
0	0	0	0	0
0	1.04	-1.04	1.0816	1.04
3	4.15	-1.15	1.3225	0.3187
21	20.77	0.23	0.0529	0.0025
12	9.69	2.31	5.3361	0.5507
0	0	0	0	0
0	1.38	-1.38	1.9044	1.38
0	1.04	-1.04	1.0816	1.04
3	5.19	-2.19	4.7961	0.9241
3	2.42	0.58	0.3364	0.1390

0	0	0	0	0
3	0.35	2.65	7.0225	20.0643
0	0.69	-0.69	0.4761	0.69
3	3.46	-0.46	0.2116	0.0612
3	1.62	1.38	1.9044	1.1756
0	0	0	0	0
0	0.23	-0.23	0.0529	0.23
			$S\chi^2$	33.1585

Table value:
V = (r – 1) (c – 1) = (5 – 1) (4 – 1) = 4 × 3= 12
Table value: $S\chi^2 = 21.0$

Chart 10: Showing the level of satisfaction towards ordering online food during pandemic.

Interpretation: The above chart indicates that during pandemic 58% of the respondents are satisfied with ordering food online among which 21 respondents belong to the age group of 30 to less than 40 years and 18 respondents are below 30 years of age.11% respondents are extremelysatisfied of whom 6 respondents are below 30 years of age. 27% are neutral while 3 respondents

are extremely dissatisfied.

At 5% Level of significance Table value is $S\chi^2 = 21.0$, since the calculated value $S\chi^2 = 33.1585$ is greater than the table value, the hypothesis is rejected. Hencethere is a significant difference between the age and level of satisfaction towards ordering online food during pandemic.

Applying Chi-square Test:
H_0: There is no significant difference between the age and preference of respondents ordering food online post pandemic

Table 11: Showing the preference of respondents ordering food online post pandemic

Preference	Less than 30	30 to less than 40	40 to less than 50	50 and above	Total	Percentage (%)
Regularly	0	3	0	0	3	4
Often	12	0	0	0	12	15
Sometimes	15	27	6	6	54	69
Never	0	6	3	0	9	12
Total	27	36	9	6	78	

Table 11.1: Showing Observed Frequency and Expected Frequency

	Observed Frequency				Expected Frequency			
Preference	Below 30	30- less than 40	40- less than 50	50 & above	Below 30	30- less than 40	40- less than 50	50 & above
Regularly	0	3	0	0	1.04	1.38	0.35	0.23
Often	12	0	0	0	4.15	5.54	1.38	0.92
Sometimes	15	27	6	6	18.69	24.92	6.23	4.15
Never	0	6	3	0	3.12	4.15	1.04	0.69

Table 11.2 Showing the calculation of $S\chi^2$ value

O	E	(O – E)	$(O - E)^2$	$(O - E)^2 / E$
0	1.04	-1.04	1.0816	1.04
12	4.15	7.85	61.6225	14.85
15	18.69	-3.69	13.6161	0.7285
0	3.12	-3.12	9.7344	3.12
3	1.38	1.62	2.6244	1.9017
0	5.54	-5.54	30.6916	5.54
27	24.92	2.08	4.3264	0.1736
6	4.15	1.85	3.4225	0.8247
0	0.35	-0.35	0.1225	0.35
0	1.38	-1.38	1.9044	1.38
6	6.23	-0.23	0.0529	0.0085
3	1.04	1.96	3.8416	3.6938
0	0.23	-0.23	0.0529	0.23
0	0.92	-0.92	0.8464	0.92
6	4.15	1.85	3.4225	0.8247
0	0.69	-0.69	0.4761	0.69
			$S\chi^2$	36.2755

Table value:

$V = (r - 1)(c - 1) = (4 - 1)(4 - 1) = 3 \times 3 = 9$

Table value: $S\chi^2 = 16.9$

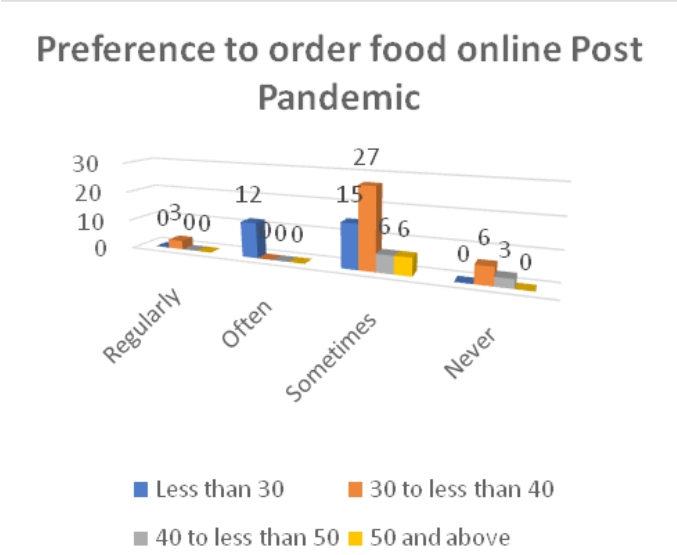


Chart 11: Showing the preference of respondents ordering food online post pandemic

Interpretation: The above graph indicates that after pandemic 69% of therespondents would sometimes prefer to order food online of which 27 respondents are between the age group of 30 to less than 40, while 12 respondents belonging to the age group of less than 30 years would often order online food. 4% would order regularly and 12% respondents would never order online food.

At 5% Level of significance Table value is $S\chi^2 = 16.9$, since the calculated value $S\chi^2 = 36.2755$ is greater than the table value, the hypothesis is rejected. Hence there is a significant difference between the age and preference of respondents ordering food online post pandemic.

Findings:

- In this study 73% are females and 27% are male respondents.
- 46% of the respondents belong to the age group of 30 to less than 40 years, 35% respondents are below 30 years, 11% are between 40 to 50 years and 8% of them are of the age 50 and above.
- Majority of the respondents earn between 20,000 to less than 40,000 income per month, 35% of them earn less than 20,000.
- Among the respondents 46% preferred restaurants for having food before pandemic, while 31% preferred ordering food online. 23% of them preferred all, that is restaurants, ordering food online, in-car dining to have food before pandemic.
- 50% of the respondents preferred to order food online once a month before pandemic.
- Even during pandemic 50% of the respondents do order food online once a month, 31% order less than 3 times a week while 11% of the respondents order food online more than 5 times a week and 8% respondents order food 3 to 5 times a week through online app during pandemic.
- Among the factors that influence the decision of respondents to choose food ordered online, 29% consider convenience and saving in time are the factors, 22% of them consider ease in ordering, 14% consider safety and 6% consider others factors like offers, easy accessibility of available options with quick search.
- 54% of the respondents prefer food in restaurants to get a break from work or to refresh. 34% respondentswould like to meet their friends, relatives and make discussionsin restaurants. 4% of them are of the perception that factors like convenience, being a habit to visit restaurants and such other factors that enable them to prefer food in restaurants.
- Majority of the respondents that is 50% of the respondents consider that it takes more time to get the delivery of food ordered online. 23% of them say network issue is one of the challenges faced by them.
- 58% of the respondents are satisfied with ordering food online during pandemic and 11% are extremely satisfied. 27% are neutral while 4% are extremely dissatisfied.
- After pandemic 69% that is majority of the respondents would sometimes prefer to order food online,15% would often order,4% would regularly order while12% respondents would never order online food.

Suggestions:

➢ High quality food and good presentation becomes one of the factors in choosing a restaurant for online order thereby leaving a lasting impression on the restaurants.

- Customers expect the food to be delivered quickly for which the restaurants can follow an efficient order management system or streamline the operations with a third-party food delivery platform.
- In order to encourage the customers to order food more often through online application, restaurants offer promotions like takeout exclusives. They must also make it flexible for the customers to choose among the offers like a customers could choose more quantity than other offers.
- Restaurants can ensure that packaging of food is in the right way and tamper-proof.
- The online process of ordering food needs to be simple and the customers problems will have to be addressed quickly.

Conclusion:

With the growing consumer demand, evolving technology and during Covid-19 pandemic the restaurants need to provide services to the customers on their fingertips apart from on-premises dining. To stay ahead in the competition restaurants haveswitched to this new technology, venturing into the digital space. Investing a small amount of money every month on such technologies will enable them to survive in this pandemic. At the same time few customers are habitualized with the on-premises dining for several reasons and catering to their needs becomes equally important for the restaurants.

References:

- Ramli, N., Ghani, F. A., Nawawi, W. N. W., & Majid, H. A. M. A. (2021). Intention to Use Online Food Ordering Services Among Universities Students During COVID-19 Pandemic. International Journal of Academic Research in Business and Social Sciences, 11(13), 394–405
- Shanmugam, S., Krishnan, S. S., &Tholath, D. I. (2021, January). A behavioral study on the factors influencing selection of restaurants online during COVID-19 using multivariate statistical analysis. In *2021 11th International Conference on Cloud Computing, Data Science & Engineering (Confluence)* (pp. 996-1003). IEEE.
- Mehrolia, S., Alagarsamy, S., &Solaikutty, V. M. (2021). Customers response to online food delivery services during COVID 19 outbreak using binary logistic regression. *International journal of consumer studies*, *45*(3), 396-408.
- Telukdarie, A., Munsamy, M., &Mohlala, P. (2020). Analysis of the Impact of COVID-19 on the Food and Beverages Manufacturing Sector. *Sustainability*, *12*(22), 9331.
- Debajyoti Pal, SureeFunilkul, WichaiEamsinvattana&SaeedSiyal (2021): Using online food delivery applications during the COVID-19 lockdown period: What drives University Students' satisfaction and loyalty?, Journal of Foodservice Business Research, DOI: 10.1080/15378020.2021.1964419
- https://glginsights.com
- https://www.businesswire.com