

“A study on the marketing effectiveness of online food delivery apps for restaurants in Thrissur and its impacts during the Pandemic period

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Research Article

“A study on the marketing effectiveness of online food delivery apps for restaurants in Thrissur and its impacts during the Pandemic period

Sneha Sasidharan

(M phil Amrita School Of Arts And Science, Cochin)
(Snehashanjith1@gmail.com)

ABSTRACT-

Before the COVID 19 outbreak, online ordering was herald as the quickest growing segment within the restaurant industry. Recent scenario, online ordering is the only source of revenue for restaurants helping them inhibit permanent closures. Indeed ,delivery and take out services have been the saving grace for most restaurants, helping them stay afloat during this pandemic. This study focus on Online food delivery as an effective marketing tool for restaurants and they taught online ordering system in place is more about having an auxiliary sales channel but a necessity

KEY WORDS:-COVID 19 pandemic, marketing effectiveness, online food delivery apps, influence, impact as well as customer preference

Introduction

Covid-19 pandemic is an unexpected situation, now its spread all over the world and posing very difficult challenges. Situation demanded to do implement some protocols for preventing the spread of Corona Virus. Therefore, many countries were followed complete lockdown. Governments were issued standard Covid-19 protocols. These prevention measures were shattered the normal life of people and brought both social and economic life to a standstill. According the world bank report, it was noted that most of the social and economic sectors were shut down their activities and people were followed Covid-19 protocols. World Bank and WHO stated at the starting stage of pandemic that major portion of working people will face loss of their income or job. Shut down of business sectors will influence the trend of GDP and other economic factors. The economist and financial experts opine that, this pandemic has been made a worse situation to the entire world and people were forced to adjusted their life with Covid-19.

As said earlier, pandemic situation has been changed everything especially in the industrial sectors. Many companies were shut down their business and some of the sectors were forced to change their business strategies for overcome the situations. Likewise, hotel, restaurant industries and online food delivery system were changed their working strategies, for example, more hotels and restaurants were entered into online food delivery system and many online delivery apps were introduced contactless delivery system. The main reason of contactless delivery is to eliminate the exchange of banknotes during time of delivery. According to the survey conducted by Rakuten insights in June 2020, majority of the people stated that they ordered more through the online delivery apps for maintain social distancing and wanted to minimize the time spend outside the home (Keelery, S., 2020). Hence, this research study was analyzing the situation with two

important research question i.e., effectiveness of Online Food Delivery App during the pandemic period and consumer buying behaviour during the pandemic period.

Theoretical Background and Statement of the Problem

Online food delivery system is one of the major industrial segments which are creating business opportunities and employment among people. Now majority of the cities are running with online delivery system. Most of the delivering systems are concentrated on cities, for example industrial area, near IT parks etc. because of majority of the people are very busy with their job and other activities and they haven't much time to enter their kitchen, hence most of them are preferring online food delivery system. Another important point is that this system is saving their time and moreover they can easily order their delicious food items through mobile app with some extra benefits. As said earlier, majority of the people are preferring online food delivery system for saving their money and time and moreover it is very convenient to them (Tribhuvan, A., 2020). Furthermore, the study found that most of the customers were happy with the service quality, hygiene, and packaging, hence they repeatedly ordering food through online delivery app. Jadhav, S. explains that food market is growing through technological invasion due to growing urbanization, increasing the disposable income, increasing the number of working women, and increasing the usage of smart phones (Jadhav, S., 2018). Furthermore, growth of food delivery system is depending on three important factors i.e., internet penetration, smart phone, and necessity. According to the Asia internet user's statistics data, it could be seen that 40.6 per cent of the total population were using internet and over 390 million users are accessing the internet via their mobile phone (Internet World Stat, 2020). This internet penetration and wide used of mobile phones are penetrating the growth of online food delivering system, because of customers can easily ordering their food items through mobile application and most of the people are feeling that online food delivering apps are very fast and efficient way of ordering food from the hotels and restaurants when compared to the traditional form of ordering through phone call (Tribhuvan, A., 2020). According to the report from Statista-2020, online food delivery segment is projected to reach US \$10,196m in 2020 and the revenue expected to reach US\$14,670m by 2024 (Statista, 2020). Hence, it could be seen that online food delivery system is widely accepted by people especially it has been creating economic benefit to the customers and country as well as increasing more customers for restaurants and hotels.

Covid-19 and Online Food Delivery System: -Covid-19 is now creating most difficult situation to the entire world, and majority of the countries are facing downward trend in their economy. Most of the countries were shut down their entire economy and normal life of people for preventing the spread of Corona Virus. These remedies are negatively affected to the entire economy of world. Now India is also witnessing the same. The world economic forum explains that Covid 19 has caused an economic shock three time worse than the 2008 financial crisis (world economic forum, 2020). The ministry of Statistics says that India's growth in the fourth quarter of the fiscal year 2020 went down to 3.1 per cent (Ministry of Statistics, Govt. of India, 2020). Likewise, all industrial sectors were faced a pre-pandemic lock down and financial crisis. During the period of pandemic all hotels and restaurants were shut down for preventing the spread of Corona Virus. This specific situation negatively influences the supply and demand side of hotels and restaurants. It has changed the traditional consumption habits of people and the pandemic situation has created a fear among the people. The fear about the Corona virus forced them to stay at their home. In this context most people were preferring online services for purchasing products, especially the food items. In the case of consumption of food items, majority of the people are choosing online food delivery app for having food items from hotels and restaurants. A study conducted by Meituan Research Institute, 71.7 per

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cent of the participants using online food delivery app at the end of February to beginning of March 2020 (Meituan Research Institute, 2020). In India, most of the Food Delivery Apps were introduced contactless delivery process and this system attracts majority of the customers. This additional facility (Contactless Delivery System) efficiently maintaining social distancing during the pandemic situation. Now majority of the Online Food Delivery Apps are offering contactless delivery option for their customers and they assure that their delivery staffs are following Covid 19 precautions as well as displaying the temperature of assigned delivery persons through their app.

Online Food Delivery App: - Online food delivery system is completely depending upon mobile app developed by different companies. Majority of the customers are using these app through their android mobile phone, because of these apps are very easy usable and customer were getting benefits like cash back offers, shopping cards, discounts etc. Major Online Food Delivery Apps are Swiggy, Zomato and Uber eats working in India. Recently Zomato has acquired the Indian operations of Uber eats and is expected to corner more than 50-55 per cent market in terms of the number and value of orders (The Economic Times, 2020). Another major player is Swiggy, started in 2014. now Swiggy is one of the top online food deliveries start up in India and become a tight competitor of Zomato. Zomato, Uber eats and Swiggy are providing good offers to their customers and restaurants. Hence, this study has taken these three online food delivery app to find the consumer behaviour and effectiveness of Online Food Delivery system during the Covid-19 pandemic period.

Effectiveness of Online Food Delivery Apps during the Pandemic period: -During the period of lockdown, every business firms were forced to shut down for preventing the spread of Corona Virus. Whole food industries were also shut down. After the lock down, food industries were started to open their firm under limited condition. Most of the people were staying at their house due to fear about Corona Virus. Hence, the online food delivery apps were introduced contactless delivery system, provide the information about delivery person like his temperature, and they assured that delivery boy will follow safety measures. Hence, study was primarily analyzed the effectiveness of online food delivery apps during Covid-19 Pandemic period. At normal situation majority of the customers were looking into control and perceived ease of online food ordering services sometime technicality preventing them to use OFD app (Kims, S. E., 2011). On the other hand, most of the people wish to enjoy the ambience of the restaurants, hence they hesitate to prefer online food delivery (Moondra, C. et.al, 2020). Unfortunately, Covid-19 pandemic situation stopped them to wish such ambience. Moondra, C., also found that most of the young age people were preferring order through online food delivery app, because of ease of placing order and time efficiency. People are not much familiar with digital payment platform. Another study was added some extra points i.e., convenience of the customers, saves time, and quick response (Borgohain, M., 2019). Jyotishman Das, found that doorstep delivery, quality of food, any offers regarding each order, discount, cash back offers are influencing customers behaviour (Jyotishman, D, 2018). Based on the review of prior studies, it could be seen that perceived ease, control, ease of placing order, efficiency of time management, convenience of consumer, quick response, doorstep delivery, quality of food, any offers regarding each order, discount, cash back offers are the main elements which are influencing customers. In Covid-19 pandemic period, customers were staying at their home and most of the companies were allow their employees to do work at their home. Hence, the number of customers were increased. In this context, the study has primarily analyzed that whether the system is effective or not in this specific situation.

Consumer buying behaviour and pandemic period: -The pre-lock down and Covid-19 protocols are changed the normal life of people and made a difficult situation for the economy. In this context, this research was analyzed the consumers buying behaviour during the pandemic period, because of customers were forced to skip offline shopping by the government due to Covid-19. Hence, people are staying at their home and all industries were decided to start work at home strategy. WHO and World Bank were estimated that impact of Covid-19 will be 2.2 per cent to 4.8 per cent of global GDP (Maliszewska, M., Mattoo, A. & Van der Mensbrugge, D. 2020). According to the International Labour Organization, about 400 million people working in the Indian informal economy, this would be 76.2 per cent of the total work force. They predict during the lockdown period that around 195 million full-time jobs will loss or will loss 6.7 per cent of global working hours. Many of the working people will face sudden loss of money due to pandemic situation (International Labour Organization, 2020). Hence, it can be inferred that Covid-19 pandemic situation has been made an unexpected change in the social and economic life of people. In the case of food industry, majority of the people are preferring online food delivery system due to Covid-19 protocol and lockdown. The restaurants were experienced a bundle of online food orders and they introduced contactless delivery system and following Covid-19 Protocols. These changes have been explaining that changing the marketing strategy influencing the performance of Online food delivery system during the pandemic period. In this context the present study is analyzing that whether the contactless delivery system have significant effect in between marketing strategy and performance of online food delivery app.

Based on the review of prior studies and market observation, study has been set up two objectives i.e.

Objectives of the Study

1. To analyze the effectiveness of Online Food Delivery Apps during the Pandemic period
2. To assess the mediation effect of Covid 19 pandemic situation between the customer satisfaction and customer service rating
3. To assess the mediation effect of contactless delivery system between marketing strategy and performance of Online Food Delivery App

Developments of Hypotheses

Economic growth, increasing the usage of smart phones and internet usage were driving the world expansion of e-commerce and e-commerce related services. Online Food Delivery system is one of the dependents of e-commerce. Now this sector has been generating direct and indirect jobs and providing enormous services to their customers. During the outbreak of Covid-19, majority of the hotels and restaurants were started to working with online food delivery apps and providing contactless delivery to their customers for maintaining social distancing and preventing the spread of Corona Virus.

Review of prior studies indicates that, success of online food delivery system is depending on the performance of the OFD and satisfaction of customers. A study conducted by Yuyang Zhao, Fernando Bacao concludes that satisfaction is not only the factor which stimulate the customer buying intension, but also influenced by technological fear, trust, performance expectancy and social influence (Zhao, Y. & Bacao, F., 2020). The satisfaction is very important element in consumer decision making process. Fast delivery, quality food, offers, discounts and trust are the main factors which are stimulating the customers decision on dining in the restaurant or order food through online delivery app (Mohanapriya, A., Geetha, P., & Kumar, P.A., 2020). Another study found that rating or reviews were influencing the customer purchasing intension. Probability of purchase increases with higher rating (Maslowska, E., Malthouse, E.

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C., & Bernritter, S. F., 2017). They further conclude that large number of reviews may bring more positive outcome, but that is not always happen. The reviews and rating are providing valuable information and signals to the customers. Rating and large number of reviews were influencing customers to take buying decision and most of the customers were looking into the review of high-priced items than lower priced items (Askalidis, G., & Malthouse, E. C., 2016). Based on the review of literature the study has been selected five factors which are influencing the customers buying food through online food delivery app. i.e., rating, price saving, customization, quality and quantity, time orientation. Each factor made up of statements.

Covid-19 pandemic has been changed everything and the people were forced to adjust their normal life in order to stop the proliferation of Covid-19. People has been changed their life style and following social distancing and covid-19 protocols. Hence, study is analyzing the influence of pandemic situation like other factors. Prior evidences were explained that above mentioned factors were significantly influencing consumer buying behaviour. Therefore, study has been analyzed mediation effect of Covid 19 pandemic situation in between the satisfaction of customers and their service rating regarding the online food delivery app. Hence, the study has developed a null hypothesis regarding the mediation effect i.e.,

H₀: There is no mediation effect by Covid 19 pandemic situation in between satisfaction of consumers and their service rating

Mediation effect in between Marketing strategy and Performance of OFD app through changing strategy.

During the pandemic period, majority of the online food delivery apps were changed their marketing strategy for prevent decreasing the number of customers. Contactless delivery system introduced by them for maintaining social distancing. Here the strategic change has had happened regarding delivery only and most of the consumers were preferring contactless delivery for maintaining social distancing and this initiation was reduced the spread of Covid 19 virus. Hence, here the study is analyzing that whether the strategic changes has made any mediation effect between marketing strategy and performance of OFD app. Hence, the study has made a null hypothesis regarding the mediation effect i.e.,

H₀: There is no mediation effect by CDSP in between Marketing Strategy and Performance of OFD App.

Methodology of the study

The study was designed as descriptive and analytical in nature, based on secondary and primary data. Secondary data were collected from website of Swiggy, Zomato and Uber eats, research articles, books and published theses. Primary data were collected through well-structured questionnaire. Study includes two sample groups i.e., restaurants those registered with online food delivery app and customers those who are ordering food items through online food delivery app. Online food delivery boys and the officials of Swiggy, Zomato and Uber eats were excluded from the study. Based on the reference of Swiggy, Zomato and Uber eats online app, it was found that there are 72 restaurants were registered with these three app. Hence, it was decided to use Cochran's formula for calculating sample size.

Sample Size calculation of Restaurants (Cochran's formula)

$$n_0 = \frac{Z^2pq}{e^2}$$

$$n_0 = \frac{1.96^2 (0.5 \times 0.5)}{0.05^2}$$

Required Sample Size for any large population =384

$$n_0 = \frac{n_0}{1 + \frac{(n_0 - 1)}{N}}$$

$$n_0 = \frac{384}{1 + \frac{(384 - 1)}{72}}$$

Sample Size of Restaurants=60

Sample Selection of Customers: - Here, the population is unknown, because of there is no statistics available regarding the number of customers preferring online food delivery. Here the study needs to analyze the data through a structural equation model. Hence, the study has conducted a review regarding the required sample size for SEM analysis. Based on the reference, it was decided to select 200 customers those who are frequently choosing online food delivery app. Purposive sampling method was used to identify the sample respondents. Hence, customers were randomly selected from various area of Thrissur and collect details regarding the frequency of online food ordering app. Finally, sample respondents were selected on the basis of their usage i.e., at least 10 order per month.

Sample selection of Restaurants: - Here the total population were 72 (restaurants). Based on the Cochran's formula, it was decided to select 60 restaurants from Thrissur. Simple random sampling method was used to identify the sample restaurants.

Data Analysis and Discussion

Here the study was used descriptive and structural equation model for finding the mediation of Covid 19 pandemic situation and Contactless Delivery with standard protocols regarding satisfaction, service rating, marketing strategy and performance of OFD app.

Pilot study: Study has conducted a pilot survey among restaurants, and online food delivery app consumers to observe the variables and validate questionnaire used in the study. For purpose of pilot study, researcher has selected 30 restaurants and 50 online food delivery app users. Cronbach's Alpha test was used to find the internal consistency of scaled items used in the study. In the case of restaurants 14 items were validate by using Cronbach's Alpha and the result shows that high internal consistency (Cronbach's Alpha=.982). Meantime 28 items were validated regarding the questionnaire for online food delivery app users. Result indicates that there is an internal consistency regarding items (Cronbach's Alpha=.891)

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Profile of Online Food Delivery App users

		Frequency	Percent
Educational Qualification	Up to SSLC	23	11.5
	+2	33	16.5
	Degree/Diploma	18	9.0
	PG/PG Diploma	46	23.0
	Professional	60	30.0
	PHD	20	10.0
	Total	200	100.0
Occupation	Govt sector	38	19.0
	Private Sector	77	38.5
	Business	61	30.5
	Daily Wage employee	3	1.5
	Contract employee (Pvt. or Govt.)	16	8.0
	Student	1	.5
	No Job	4	2.0
	Total	200	100.0
OFD apps usage	Uber Eats	22	11.0
	Swiggy	106	53.0
	Zomato	42	21.0
	Above all	29	15
	Total	200	100.0
Frequency of OFD apps usage during Pandemic Period	Less than 5 times	37	18.5
	5-10 times	27	13.5
	10-15 times	21	10.5
	15-20 times	68	34.0
	More than 20 times	47	23.5
	Total	200	100.0

Table illustrates the profile of sample respondents and their usage of online food delivery apps during the pandemic period. Here explaining the educational qualification, occupation, types of OFD app used by the sample respondents and their frequency of OFD app usage during the pandemic period. Result indicates that 23 per cent of the respondents have PG/PG diploma and 30 per cent of the respondents have professional degree qualification. Meantime, it could be seen that majority of the respondents are working private sector i.e., private sector employees (38.5 per cent) and 30.5 per cent of the are running business. In

the case of OFD app usage, majority of them are using Swiggy (53 per cent), whereas 15 per cent of the sample respondents are using Uber Eats, Swiggy, and Zomato. Study found that, majority of the respondents were ordered multiple time i.e., 34 per cent of the sample respondents were ordered 15-20 times per week, 23.5 per cent of them were used the OFD more than 20 time in a week. Based on the result it could be concludes that customers were more used these OFD apps during the pandemic period than the normal situation.

Table												
PCA Analysis and Total Variance Explained												
C	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings			Components		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %			
1	5.116	20.74	20.74	5.116	20.74	20.74	6.116	24.79	24.79	Factor One	R1	.663
2	4.97	20.15	40.89	4.97	20.15	40.89	3.97	16.09	40.88		R2	.629
3	3.724	15.10	55.99	3.724	15.10	55.99	3.724	19.15	60.04		R3	.685
4	2.373	9.62	65.61	2.373	9.62	65.61	2.373	5.57	65.60	Factor Two	P1	.799
5	1.21	4.91	70.51	1.21	4.91	70.51	1.21	4.91	70.51		P2	.816
6	0.907	3.68	74.19	Kaiser-Meyer-Olkin Measure of Sampling Adequacy.					.788		P3	.832
7	0.829	3.36	77.55								P4	.738
8	0.783	3.17	80.72	Bartlett's Test of Sphericity			Approx. Chi-Square	1771.913	P5		.659	
9	0.755	3.06	83.78				df	190	P6		.719	
10	0.69	2.80	86.58	Communalities					.000	Factor Three	C1	.767
11	0.591	2.40	88.98								C2	.725
12	0.501	2.03	91.01	C3	.604							
13	0.447	1.81	92.82							C4	.652	
14	0.396	1.61	94.43	R1	.778	P5	.772	Q1	.569	C5	.559	
15	0.301	1.22	95.65	R2	.647	P6	.645	Q2	.688	Factor Four	Q1	.672
16	0.291	1.18	96.83	R3	.685	C1	.760	Q3	.610		Q2	.630
17	0.254	1.03	97.86	P1	.755	C2	.673	T1	.670		Q3	.689
18	0.203	0.82	98.68	P2	.713	C3	.760	T2	.688	Factor Five	T1	.563
19	0.165	0.67	99.35	P3	.719	C4	.544	T3	.676		T2	.543
20	0.161	0.65	100.00	P4	.743	C5	.697				T3	.608

Extraction Method: Principal Component Analysis.

Here the PCA analysis indicates that Data have enough sampling adequacy (KMO=.788) and Bartlett's Test of Sphericity is statistically significant i.e., Ch-square =1771.913 with DF 190, shows statistical significance p-value =.000<0.05, hence, it can be inferred that PCA can proceed to find the strength of variables to produce exact result. The Initial Eigenvalues value indicates that five factor solution will be explain 71 per cent variance and on the basis of factor loading, the variables were categorized under five heads i.e., Rating (Factor 1), Price Savings (Factor 2), Customization (Factor 3), Quality and Quantity (Factor 4), and Time savings (Factor 5).

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Mediation Effect of Covid 19 pandemic period between Online food Delivery App customers satisfaction and their service ratings.

Model Fit Indices

Here the CMIN NPAR is 28 with p-value .552 and RMSEA value is 0.81 and FMIN is 0.073. which are indicating that model is having goodness of fit.

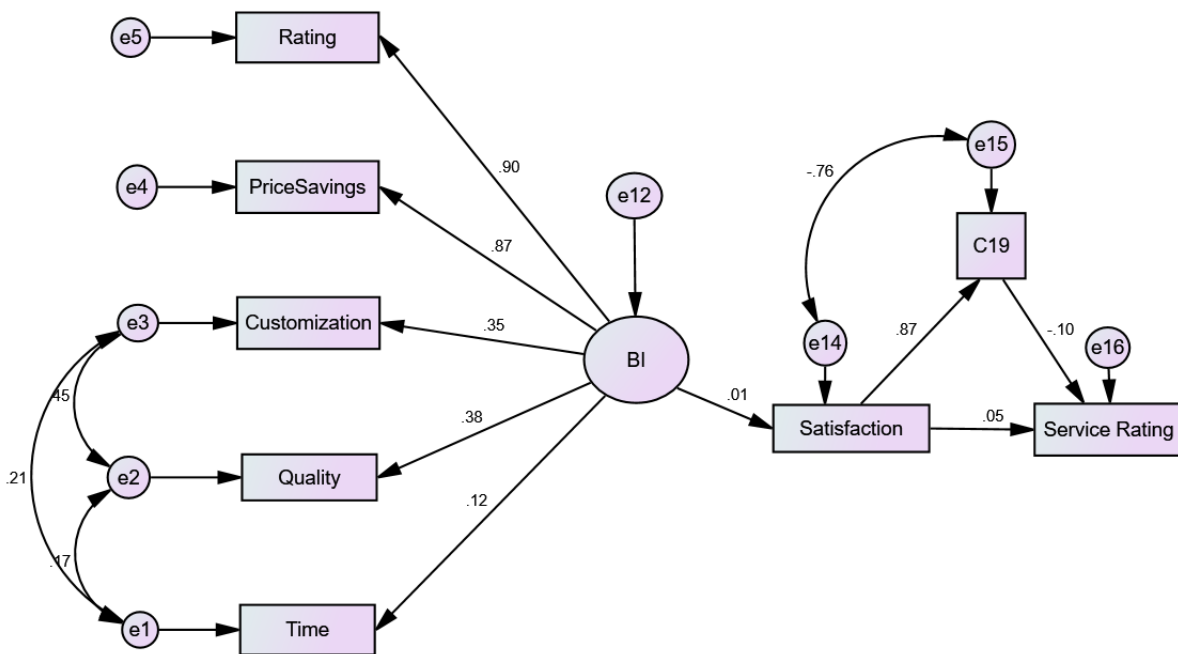


Figure 1

Structural Equation Model-Mediator Effect—Between Satisfaction and Service Rating (Standardized Estimates)

Here is the BI (Behaviour intension of consumers regarding online food delivery app usage to order food items) is the sum up of five observed variables i.e., rating of app, price saving while ordering food items, customization of food items through app, quality of food items and time saving.

Here the study looks into the direct and indirect effect regarding satisfaction of customers regarding the usage of OFD app and their services rating through Covid 19 pandemic period.

Direct effect- Impact of satisfaction on services rating

Indirect effect- Impact of satisfaction on service rating through the pandemic situation.

Std. Total Effect	BI	Satisfaction	C19
Satisfaction	.006000
C19	.006000
Service	.000	-.104

Here the effect of BI on satisfaction is .006 (Direct effect) and the effect of Covid 19 on service rating of OFD app is -.104. Hence it can be inferred that Behavioral intension have significant effect on satisfaction of customers while Covid 19 have invers effect on service rating is -104. which means when Covid 19 goes up by 1 SD, services rating goes down by -.104 SD.

Meantime standardized indirect effect indicates that impact of satisfaction on services rating through pandemic situation is -.091, which indicates there is a mediation effect in between satisfaction and services rating

	BI	Satisfaction	C19
Satisfaction	.000	.000	.000
C19	.006	.000	.000
Service	.000	-.091	.000

Mediation Effect -Marketing Strategy-----CDSP-----Performance

Model fit Indices

Here the chi-square goodness of fit indices is statistically not significant ($X^2_{(31)} = 41.848$, p-value=0.092>0.05), RMSEA is 0.077 and FMIN is .709. Hence, it can be concluding that this structural equation model has good fit indices.

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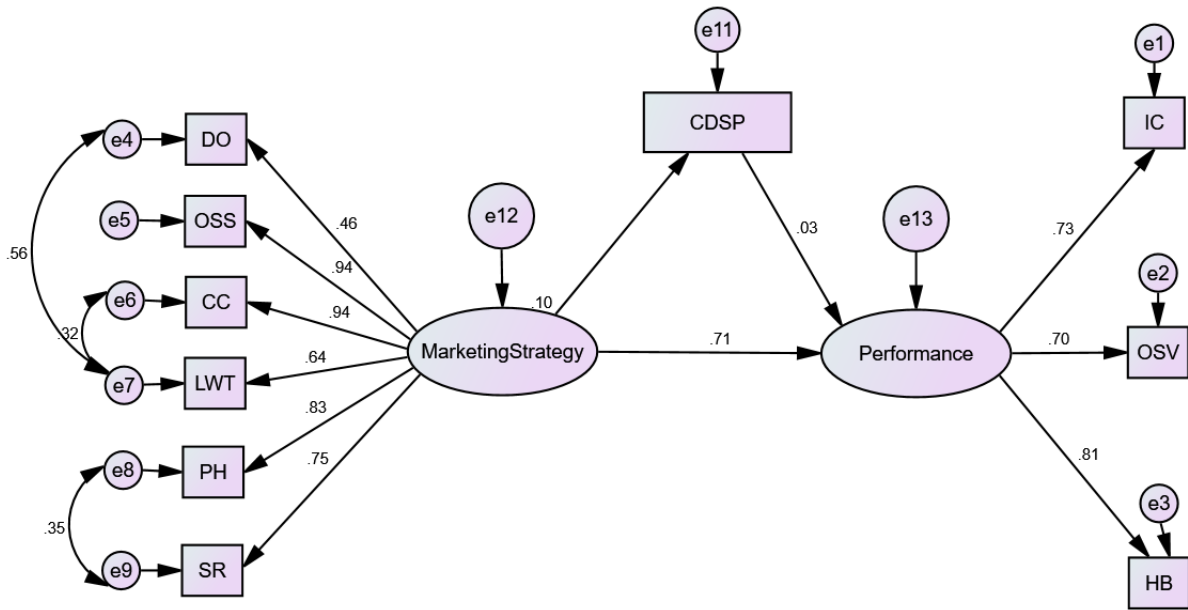


Figure 1.

Structural Equation Model-Mediator Effect—Between Marketing Strategy and Performance of OFDA (Standardized Estimates)

Mediation effect of CDSP between Marketing strategy of restaurants and the performance of Online food delivery app. Here the performance is the sum up of three observed variables i.e., Increase in customers, Increase in Overall sales volume and hike in business. Simultaneously marketing strategy is the sum up of six observed variables i.e., DO (discounts and offers), OSS (One stop shop), CC (Comfort and convenient), LWT (Less waiting time), PH (Professional Handling), and SR (Star rating).

The regression weights indicates that impact marketing strategy on performance is significant ($.002 < 0.05$) while Impact of CDSP (Contactless Delivery with Covid 19 standard protocols) on Performance is not significant ($.775 > 0.05$).

Regression Weights			Estimate	S.E.	C.R.	P	Label
CDSP	<---	Marketing Strategy	1.000				
Performance	<---	Marketing Strategy	1.186	.384	3.086	.002	par_1
Performance	<---	CDSP	.005	.019	.285	.775	par_2
IC	<---	Performance	1.000				
OSV	<---	Performance	1.167	.246	4.736	***	par_3

Regression Weights			Estimate	S.E.	C.R.	P	Label
HB	<---	Performance	1.076	.205	5.241	***	par_4
OSS	<---	Marketing Strategy	1.840	.473	3.890	***	par_5
CC	<---	Marketing Strategy	1.922	.494	3.889	***	par_6
LWT	<---	Marketing Strategy	1.359	.289	4.703	***	par_7
PH	<---	Marketing Strategy	2.031	.543	3.739	***	par_8
DO	<---	Marketing Strategy	1.000				
SR	<---	Marketing Strategy	1.757	.489	3.596	***	par_9

Result is also illustrating that impact of performance on IC, OSV and HB showing statistical significance and Impact of Marketing Strategy on OSS, CC, LWT, PH, DO and SR are also significant

Here is the main objective of the analysis was to identify the direct and indirect effect in related to Marketing Strategy, performance and CDSP.

Direct effect----- Impact of Marketing Strategy on Performance of OFDAP

Indirect effect----- Impact of Marketing Strategy on Performance through CDSP

Standardized Total Effect	Marketing Strategy	CDSP	Performance
CDSP	.099	.000	.000
Performance	.716	.033	.000

Here the total effect indicates that effect of marketing strategy on performance of OFDAP is .716 i.e., direct total effect (when marketing strategy goes up by 1 SD, performance goes up by 0.716 SD). While effect of CDSP on performance is very low i.e., 0.033 and the regression weight result indicates that effect of CDSP on performance is not statistically significant. Hence, it can be assumed that Marketing strategy of restaurants is showing significant effect on the performance of Online food delivery app

In the case of indirect effect, Impact of marketing strategy on performance through CDSP is showing below.

SIE	Marketing Strategy	CDSP	Performance
CDSP	.000	.000	.000
Performance	.003	.000	.000

This indicates that Mediator variables i.e., new method adopted by the restaurants to prevent the decreasing customers due to Covid 19 (Contactless Delivery with Standard Protocols) is not showing any impact in between marketing strategy and performance of OFD app. The bootstrap two tailed significance shows that total effect of marketing strategy on performance is significant while effect of CDSP on performance is not significant, hence it can be concluding that CDSP is not showing any effect on the performance of OFD app. While look into the Bootstrap two tailed significance (Indirect effect), it could be seen that effect of marketing strategy on Performance of OFD app through the mediator (CDSP) showing not significant.

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Bs SIE	Marketing Strategy	CDSP	Performance
CDSP
Performance	.558

Hence, it can be concluding that contactless delivery with standard protocols isn't have significant effect in the performance of OFD app.

Result of Hypothesis

Based on the structural equation model, it could be seen that Covid 19 pandemic situation have significant mediation effect between the satisfaction of customers and their service rating. Hence, the hypothesis that there is no mediation effect by Covid 19 pandemic situation in between satisfaction of consumers and their service rating stands rejected

In the case of mediation effect of CDSP between marketing strategy and performance of OFD app, it can be inferred that the null hypothesis that there is no mediation effect by CDSP in between Marketing Strategy and Performance of OFD App stands accepted.

Conclusion

Covid 19 pandemic situation is an unexpected event which was affected to the entire world, especially in the business sector. Many of the industries were shut down or reduce their employees to prevent the loss of their business and maintaining social distancing imposed by the governments. Here the study was focused with the effect of online food delivery app and effect of marketing strategy changes happened in the online food delivery system. Based on the analysis result it was found that marketing strategy changes haven't significantly influence the performance of online food delivery app. Here marketing strategic changes was contactless delivery system and result concludes that contactless delivery system haven't any significant effect between marketing strategy of restaurants and performance of online food delivery app. In the case of customers perception, the pandemic situation has significant effect between customer satisfaction and service quality rating. which means influences the customers satisfaction and their service quality ratings.

Major findings

1. Study found that majority (53 per cent) of the respondents are using Swiggy app for ordering food items
2. Study found that 34 per cent of the customers were ordering 15-20 times per week, 23.5 per cent of them were ordering more than 20 times per week.
3. Study found that majority (70 per cent) of the restaurants have been providing online food delivery services more than 10 months.
4. Majority (63.8 per cent) of the restaurants agree that their sales were increased during the pandemic period (25-50 per cent increase)
5. Majority (54 per cent) of them are agree that number of customers have increased during the pandemic and overall sale volume were increased from 25 to 50 per cent

6. Based on the Structural equation model, it was found that effect of satisfaction on services quality rate is significant through the Covid 19 pandemic period. Which means Covid 19 acts as a mediator between satisfaction and service quality rating.
7. During the pandemic period majority of the restaurants were introduced contactless delivery with standard protocols. Here the result indicates that Contactless delivery system haven't significantly influence between marketing strategy and performance of OFD

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