Factor Influencing Economic Growth Of Online Food Ordering And Delivery Application During Covid-19

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Abstract: Online food delivery (OFD) apps have grown in popularity in recent years, making it easier for customers to shop through online channels due to the convenience they provide. Lockdown was employed in India during the current COVID-19 pandemic in order to restrict the spread of illness.As a result of recent corporate scandals, demand for this speciality has skyrocketed. Consumers, on the other hand, are at danger when it comes to OFD. It improved consumer cleanliness and altered consumer perceptions of OFD. Because earlier research operations are no longer relevant due to constant changes in consumer behaviour, elements influencing consumer decision-making in the area of OFD should be investigated again and again.The research's main goal is to use exploration factory analysis to find the characteristics that influence OFD selection during lockout to India, allowing OFD service providers to make strategic decisions based on customer desired value. Analysis The major component analysis is used to collect the smallest fraction that contributes to the maximum number of variables specified using a sample of 215 models with a set of twenty variables. Three variables were eliminated from the analysis because they did not adequately characterise the variables of the component. Using a linear combination of actual variables, it generates a set of unrelated hidden variables.The study came to a conclusion with seventeen characteristics classified into four categories: efficiency, information, control, safety, quality, and cleanliness.

Keywords:Online Food ordering and Delivery Application, Economic Growth, Customer View, Lockdown

1. INTRODUCTION

The number of mobile phone users has expanded dramatically as a result of rapid technological advancements. Mobile phones have become an integral part of everyone's lives, and their use allows users to communicate not just through calling but also through the use of advanced applications. The world will move at a faster and more convenient pace (Tomo et al., 2020). By the end of April 2020, there were around 2.56 million mobile apps available for download in the Google Play Store and 1.847 million in the Apple App Store (Statista, 2020).

A fast-paced lifestyle, on the other hand, produces a market need for consumers to seek out new options and perform their everyday tasks more quickly.Companies, in particular, have introduced more inventive options, ranging from house deliveries to pick-up stations to last-mile delivery (Wang et al., 2019). The meal delivery service model is one of the fastest growing and most pervasive mobile phone usage models among online delivery firms (Drohocle, Piasna, 2019). Furthermore, the advancement of technology to connect various business partners, as well as the advancement of interactive technologies that allow users to gather, collect, and compare data, has drawn more active customers on board (Cho et al., 2019).

The market for online food delivery (OFD) is predicted to increase at a 30.55 percent compound annual growth rate (CAGR) over the next four years, with seven major companies (Business Wire, 2020).The ability for applications to access restaurants in their vicinity, examine menus, place orders, and make payments without physical interruption is the key driver of growth, since it gives them more control over the process (ng Kong et al., 2009). Customers can purchase meals from available restaurants utilising OFD applications, and make more informed judgments based on information regarding the food, restaurant, delivery, and post-order service, among other things. Above all, the experience they deliver is the primary driver of rapid expansion (Sun, 2019).

As a result, an accurate measurement of parameters influencing OFD selection during COVID-19 pandemic lockdown is not available in India. As a result, the purpose of this study is to look into the presence of interrelationships between recognised species and to design a new metric for measuring them in the Indian context by analysing components to eliminate unrelated latent variables using a set of linear combinations. The original components The paper form is laid out as follows: Section 2: Previous study's literary review The process is described in Section 3. The analysis is described in Section 4. The fourth section deals with the conclusion and discussion, followed by the fifth and final section.

2. RELATED WORKS

For years, this offer has been highly popular among the youth because of its simplicity and capacity to provide the customer with more possibilities. (Hu, Yin, 2019). According to a study conducted in India, the aggregator's, delivery executive's, and support staff's reputations are based on the aggregator's, delivery executive's, and support staff's service capacity after the purchaser has completed studies on human resource characteristics (Ghosh et al., 2019).

Participants are affected in a number of ways by online meal delivery applications, depending on economic, social, and environmental factors. The OFD has had a good impact on the COVID-19 situation (Li, Mirosa, and Bremer, 2020), thanks to the lockdown (Li, Mirosa, and Bremer, 2020), which allows customers to order food without having to leave their

homes.OFD delivers appropriate information to customers based on exterior stimuli such as restaurant and other customers, as well as stimulus based on internal triggers such as prior use and preferences (Lunar and Cassandra, 2019).

Previous studies have shown a model of a unified theory of technology acceptance and use, as well as motivation to investigate consumer expectations and their impact on customer satisfaction levels in Jordan (Alvan, 2020). Consumer acceptance and technology were employed by UTAUT to uncover behavioural characteristics, as well as customer value and habit (Venkatesh et al., 2012).They construct a thorough model for forming relationships, and the outcomes have a big influence on it. Consumer desire to use OFD in India has been considerably influenced by factors such as choice, technology, and information convenience (Chai, Yat 2019).

Quality features and the overall picture of consumer awareness for OFD selection have revealed that single-family dwellings place a higher value on quality (Cho et al., 2019). In addition to quality characteristics, clients are guided by considerations such as the promised delivery time, the temperature of the food at the time of delivery, and the security of the information supplied by the customers.Satisfaction with the outcome of the process (Sjahroeddin, 2018). Consumers utilise information quality and v image in the form of online reviews and ratings to assess the overall quality of a product, in addition to food quality (Filier, 2015). The OFD platform's design and capacity to present customers with clear information can lead to a faster completion of a transaction, affecting customer satisfaction and subsequent positive change (Kapoor& Wiz, 2018 &Girija et al., 2019).

The relationship between price and time savings to consumer experience elements was drawn using an empirical technique with a contingency framework, which strongly supports the theories and confirms the same position that led to the desired purpose of research in a similar study conducted in Pune. Customer information (Priyanka et al., 2018). Monthly expenses are simple to manage, and online payment methods for people aged 20 to 45 are major determinants in overall satisfaction (Mallat, 2007).

Based on customer demands and understanding of OFD, previous research has shown that OFD can focus on ordering to enhance the percentage of online orders.Consumers and non-consumers alike benefit from a greater understanding of control and experience, which has been found to encourage non-consumers to embrace OFD. Parallel to this, intervention appears to be required to alleviate technological worries in order to support new consumers and to strike a balance between autonomy and communication with the goal of achieving the desired level of autonomy and communication (Kims, 2011).

Consumers are more cautious of OFD due to social distance, such as fear of infection, which is one of the preventative measures recommended by specialists.Aggregators, on the other hand, have implemented a variety of measures to assure the safety and hygiene of the food served, including having hygienic booths in restaurants to clean riders' hands before delivery, providing clients with body temperature monitoring devices, and reducing mandated use. Of safety equipment. To prevent direct interaction, OFD service providers take comparable precautions with the cash-on-delivery option and doorstep delivery. Based on application graphics, these actions are projected to boost consumer awareness and communication with service providers (Economic Times, 2020).

3. METHODOLOGY AND IMPLICATIONS

We discovered that no study has been undertaken to measure the effect of COVID-19 lockdown on OFD's consumer awareness, and that population has a substantial impact on consumer awareness, based on prior Reach articles. To minimise the collection of hidden variables unrelated to the combination of undiscovered identities, it is required to investigate the variables that influence user perceptions and develop an empirical approach to validate the collective existence of identified species.

A rigorous literature research was used to produce the list of elements, which was then followed by an exploratory component analysis utilising the VARIMAX rotation to identify the associated components listed below.

The first step in the process of creating a new level is to describe the construction area and set the basic variables for measuring the constructions. To examine the previous level, a comprehensive literature review was undertaken, and the variables employed in the prior research were collected. Due to a dearth of study on COVID-19 lockdown and its impact on OFD, journals have been evaluated.

Three types of Google forms are used to produce and distribute appropriate questions based on selected criteria.The first section contains eight questions to understand the sample population and one question to understand the research study sample's ance picture, so that the OFD decision ranges from one to five, and the OCD score ranges from one to five, based on the identifiable valuables finally affected to eliminate invalid responses. Agrees wholeheartedly with the suggestion. The OFD adds the filter question to identify underused offenders, so removing literati, to the questionnaire, which gives a full description of the purpose and explicitly states the answers to the myths related with the COVID-19 lockup conditions.A total of 240 replies were recorded, with 25 of them being deemed invalid and removed due to the lack of usage of the OFD. In the end, 215 legitimate responses were collected. SPSS is used to list and analyse the responses that were recorded. The data was described using averages, means, maximums, minimums, and standard deviations. Exploratory factor analysis is a powerful tool for finding the linear dependency of variables and generating a collection of unrelated hidden variables from a set of original variables.

4. ANALYSIS

4.1. Sample Demographics

After removing invalid replies (n = 215), demographic features of the sample were examined. The majority of those who took part in the survey were between the ages of 19 and 30. (97.20 percent). In the study samples, 23.25 percent were women, and 76.74 percent lived with their families (89.31 percent). A postgraduate degree in education is held by 53.48 percent of those surveyed.
The ance image of the analysis must be accessible before the exploratory component can proceed to analysis. To determine sample efficiency, the Kaiser-Meyer-Olkin (KMO) test was used, and the BartouletteGlobality test was used to ensure that the correlation matrix was not an identification matrix.The faulty theory that variables were unrelated was refuted by

Bartoulette's spherical experiment, which demonstrated that the correlation matrix was not an identification matrix. A KMO of more than 0.6 is generally regarded as satisfactory. KMO = 0.862 was found in the statistics, indicating that the quantity of samples taken was appropriate. The twenty independent variables' correlation matrix was determined to be positively specific, indicating that all variables are mutually independent.

4.2. Exploratory factor analysis

The major purpose of the study was to find the smallest variable that would generate the greatest variance in a particular data set, hence component analysis was done using the main component approach. Societies, not elements, establish the ratio of variables to each variable, which must be able to explain at least half of the variance in each variable. As a result, faiths with a score of less than 0.5 were removed one by one. Finally, the three variables are deleted, leaving Table 1 with a list of the community's final variables.The strategy employed here is based on the eigenvalue and the percentage of total variation that can be explained by the collected component to collect the smallest number of components for group variables. The total variation indicated by the components of the seventeen variables investigated is also shown in Table 1.

Item	Communality	Factor	Initial eigenvalue		
			Total	% of variance	Total %
X1	0.924	1	7.385	43.443	43.443
X2	0.649	2	2.141	12.594	56.037
X3	0.777	3	1.861	10.947	66.984
X4	0.915	4	1.482	8.719	75.702
X5	0.685	5	0.853	5.015	80.718
X6	0.645	6	0.595	3.500	84.218
X7	0.731	7	0.471	2.771	86.989
X8	0.787	8	0.422	2.480	89.469
X9	0.864	9	0.343	2.019	91.488
X10	0.541	10	0.323	1.899	93.387

Table 1: Percentage of variance explained by extracted factors after Varimax rotation
When the same variable is loaded across multiple components, the structure gets more complex, especially when the load is 0.4 or higher. The structure of variables fed into a single component is explained. The factor matrix can be turned on and understood more simply using factor rotation. The technique of lubricating the axes by rotating them 90 degrees to each other is known as orthogonal rotation. The Varimax type orthogonal rotation lowers the number of variables with a heavy load on one component, resulting in an orthogonal rotation on the matrix for the Varimax produced factor.The rotating component matrix produced a structure with modest cross-loading on the other components, accounting for 75.70 percent of the overall difference between the four components (see Table 2). When the variables are cross-loading, however, the maximum loading factor is taken into account.

According to the findings, the study's seventeen variables followed a four-factor model, with categories named after the content and type of the variables and described in a subsequent section. After the components have been built, the most typical way is to test the Cronback's alpha internal level for stability and dependability. Any sub-level with a value larger than 0.7 is referred to as acceptable. The Cronback Alpha values for each sub-level were calculated to be between 0.841 and 0.933, which was judged to be satisfactory. For each component indicated in Table 2, detailed statistics of the collected variable and related loading, including the median, mean, and standard deviation with the variables, as well as the cronback alpha value.

Factor	Variable	Mean	Median	Standard deviation	Factor loading
Information provided	Online review	3.40	4.00	1.032	0.923
	Product information	3.78	4.00	1.074	0.720
	Tracking system	3.27	3.00	1.072	0.783
	Customer rating	3.41	4.00	1.037	0.925
Convenience	Time saving	3.57	4.00	1.047	0.708
	Interaction with app	3.58	4.00	1.046	0.771
	Promised service level	3.49	4.00	1.085	0.809
	Order w/o leaving home	3.48	4.00	1.071	0.820
	Delivery in time frame	3.43	4.00	1.078	0.897
Control & Security	Control on process	3.02	3.00	0.919	0.722
	Control on choices	3.38	3.00	0.953	0.607
	Control on app	3.31	3.00	1.019	0.773
	Secure user info	3.63	4.00	0.977	0.626
	Secure payment	3.17	3.00	0.954	0.873
Quality & Hygiene	Restaurant on hygiene	3.52	4.00	1.110	0.877
	OFD service on hygiene	3.36	4.00	1.080	0.820
	Traceability on people	3.47	4.00	1.101	0.879

The research identified factors influencing consumer perceptions of online food delivery during the COVID-19 lockdown in the Indian context using exploratory component analysis, and then divided the variables into four categories: 75.70 percent cumulative diversity, efficiency, control & safety, and hygiene.

Time savings, level of service provided, ability to order without leaving home, fast delivery, and engagement with the programme are all factors in the Factor function component. Following an assessment of the recent decade's food trends, research has revealed a major shift in consumer preference for online outlets (Cho et al., 2020). The goal of using online food delivery, including service completion and service quality, has been studied using e-self-measurement, which has a considerable favourable effect on the level of satisfaction with OFD usage and customer behaviour intentions (Annarad, Beresina, 2020).

Online reviews, product information, a tracking system, and customer ratings are all entered into the information component variables. The information offered by the OFD application

greatly increased customer learning success rates, according to research based on the IS model that looked at 10 food delivery apps to measure entry rates (Wang et al.) Suggestion: If customers understand what you're doing, they'll be happier (Iyer et al., 2018). Because the consumer cannot touch or feel the product when purchasing online, the quality of the product information offered by the provider in terms of visuals and features has a high correlation value, resulting in higher conversion rates (Morais et al., 2019).

Measures loads, variables, quality, and hygienic elements utilising the restaurant's, service provider's, and responsible persons' identifying information. According to the KAP model, this will raise consumer awareness of food safety, enhance their attitude about buying priorities, and make them more likely to follow food safety guidelines (Mihalache et al., 2020).

Table 3: Result and Discussions

6. CONCLUSION

During the COVID-19 lockdown during their India tour, the current study discovered a shift in customer impression of OFD. The analysis of exploratory elements has been completed and should not be regarded in the context of some variables considered in prior study, such as temperature, accessible meal choices, and so on. This corroborates the shift in user behaviour following COVID-19. Finally, variables are broken down into four categories: functionality, information, control, security, quality, and cleanliness, and the ODF provider may be utilised to make strategic decisions in order to provide clients with the value they desire. The work is cross-sectional in form, and it does not offer an explanation of visual changes through time.As a result, future research will require a longterm study. These characteristics may differ greatly geographically, and the results may not be generalizable; however, considering socio-cultural aspects may increase current understanding of crucial elements revealed in upcoming studies.

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