

Investigating the Impact of Online Service Convenience on Customer Engagement, Attitude and Intention to Use Food Delivery Apps

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ABSTRACT

The present study investigates the impact of online service convenience on customer engagement. Furthermore, the role of customer engagement has been examined in relation to attitudes and intentions to use mobile food delivery apps. The data was collected in five malls of the National Capital Region (NCR) of India through a structured questionnaire. The convenience sampling method was employed, resulting in 161 responses. The Adanco 2.2 software was used to analyze the responses. Since this study represents the first attempt in the context of food delivery apps, its findings have implications for both academics and marketers.

Keywords: Convenience; Customer Engagement; Food Delivery Apps; Mobile Apps; Online Service Convenience.

1 Introduction

Internet has transformed the business landscape across the globe. In order to remain competitive, organizations are increasing their presence in virtual space to have better interaction with consumers. Since last decade, smartphones and app-based services have become an essential part of consumer's life (McLean 2018). The companies are making their presence in mobile apps as well and these apps improve the consumer's interaction with organizations (Alnawas and Aburub 2016). During Covid-19 pandemic, food delivery apps have also captured the attention of consumers to avoid the crowded places and maintain social distancing (Zhao and Bacao 2020). The growth in online payment options and mobile wallets have also contributed significantly in the growth of online food delivery industry in India (Curry 2020). As far as food delivery app market is concerned, India stands at seventh rank in terms of revenue generation in the year 2021. Indian food delivery app market size is estimated at US\$1.3 billion (Curry 2022) and with growing number of users, it is expected to reach US\$13 billion by 2025 (Statista 2022).

The growth of mobile apps is significantly contributing in the growth of e-commerce industry due to their convenience of usage at different stages of consumer buying process (Almarashdeh et al., 2019). According to YCPS Marketing and Communication Group, food delivery apps are based on quick commerce model where convenience is one of the very important factors which is driving customers to order food from mobile apps (YCP Solidiance, 2022). However, the online service convenience has been considered as a multidimensional construct in very few past studies (Shankar and Rishi 2020). The studies, which have considered the online service convenience as a multidimensional construct, are conducted in online shopping, mobile banking and retailing contexts (Duarte et al., 2018; Jiang et al., 2013; Pham et al., 2018; Shankar and Rishi, 2020). This multidimensional construct is yet to be studied in other online service contexts such as food delivery apps.

Majority of the studies in the literature focused on understanding the impact of convenience on various factors like intention to adoption of mobile banking, behavioral intention, perceived value, repurchase intention, attitude, and satisfaction (Kumar et al., 2020; Pham et al., 2018; Shankar and Rishi, 2020; Yeo et al., 2017). On the other hand, convenience has been studied as moderating variable between customer satisfaction and customer engagement (Pansari and Kumar, 2017), perceived service quality and its sub dimension (Nguyen et al., 2012), intention and actual purchase (Indiani and Fahik, 2020), service quality and post purchase behavior (Kuo et al., 2012).

Customer engagement involves methods by which customers guide the process of value co-creation (Roy et al., 2022). It presents an opportunity to understand the various issues related to the consumer's interaction with brands much effectively than the traditional relational concepts (Islam et al., 2019) and expand relationship marketing (Agyei et al., 2020). Customer engagement is defined as "a state of being involved and committed with a specific market offering" (Taheri et al., 2014, 322). There are two schools of thoughts on customer engagement. First, customer engagement is a multidimensional concept which involves customer identification, involvement (Brodie et al., 2011; Dwivedi 2015; Hollebeek et al., 2014; Vivek et al., 2012). The other approach considers customer engagement as a single dimensional concept which focuses on behavioral indicators (Doorn et al., 2010; Harmeling et al., 2017; Jaakkola and Alexander, 2014; Kumar et al., 2010). Moreover, the growing usage of mobile apps makes it imperative to understand the impact of service convenience on customer engagement.

With the help of extensive review of literature, it has been discovered that the impact of service convenience on customer engagement is still an understudied area of research, especially in online services such as food delivery apps. Thus, to fulfill this gap, the study aims to investigate the impact of online service convenience on customer engagement. Further, the role of customer engagement has been examined in generating positive attitude and intention to use mobile food delivery apps.

As far as the organization of the present study is concerned, the study starts with an introduction of the selected research area followed by literature review, research methodology and results. Further, the discussion, conclusion and implications have been elaborated. The study ends with limitations and directions for future research.

2 Literature Review and Conceptual Framework

Convenience is defined as, total time and effort spent by a consumer in getting a particular service or a product (Copeland 1923). According to Morganosky (1986, p.37) convenience is how well one "accomplish a task in the shortest time with the least expenditure of human energy." Consumers' perceived spending of time and effort affect their perceptions of service convenience. (Berry et al., 2002). Due to the emergence of convenience as an important concept both researchers and practitioners started giving attention to explore its impact on consumers (Seiders et al., 2007). The concept of service convenience has been explored by the researchers in different contexts. Consumers across the globe are using various online services especially after the emergence of mobile applications to minimize the time and efforts. Literature provides evidence that customers switch the services based on convenience (Shankar and Rishi 2020). Convenience is one of the important factors in online shopping (Jiang et al., 2013; Senthil et al., 2020). The availability of mobile based applications is enabling consumers to use the services from anywhere (McLean, 2018).

2.1 Service convenience and customer engagement

The various dimension of the convenience as suggested in various studies is well connected with the various stages of consumer decision making (Farquhar and Rowley, 2009). Literature provides five dimensions of the online service convenience: access convenience, search convenience, transaction convenience, evaluation convenience, and possession/post-possession convenience (Shankar and Rishi, 2020).

2.1.1 Access convenience

Access convenience is defined as the “consumers’ perceived time and effort expenditures to initiate service delivery” (Berry et al., 2002, p.7). Easy access of information, wide range of availability, easy to locate the service in online platform are some of the important aspect of online access convenience (Shankar and Rishi, 2020). Availability of the online access to the service reduce the time and efforts because consumer need not to visit the physical store and can avoid the crowd (Almarashdeh et al., 2019). The access to the store can improve the interaction of the customer with the service provider. In case of food services consumer visit the restaurant if they do not have access to the resources or they are not aware about the food delivery apps. With the help of food delivery applications, restaurant can improve the online access convenience by providing better applications. Availability of online options, storing the customer information in database and suggestion based on previous experience may increase the convenience (Pansari and Kumar, 2017). Better access to the information will increase the customer learning about the service provided by the customer. Therefore, we propose that:

H1: Higher access convenience positively affect the customer engagement.

2.1.2 Search convenience

Search convenience is defined as “the speed and ease with which consumers identify and select products they wish to buy” (Beauchamp and Ponder, 2010, p.52). It includes various systems in place which ease the consumer search process. Food delivery apps include various features through certain filters, rating which help consumer in searching the options in lesser time. It also provides the different information on single platform which make search process much easy for the users. Online search convenience also provide access to the large data in one click (Shankar and Rashi, 2020). Perceived easiness of platform will make shopping/browsing more appealing for the consumer (Ariffin et al., 2021; Camilleri and Falzon, 2021; Yeo and Rezaei, 2017). Therefore, search convenience may further improve consumer engagement in online platform. Based on this we propose following hypothesis:

H1: Higher search convenience positively affect the customer engagement.

2.1.3 Evaluation convenience

Evaluation convenience focuses on various features available on online portals which may help consumers in evaluating the services easily. Availability of the reviews, standardization of offering help consumer in evaluating the services easily before actual purchase (Jiang et al., 2013). With the help of various features, consumer can understand fitness of product with their need (Duarte et al., 2018). Consumer can also help other consumers by providing the reviews and photos of their order and can help service provider in improving their services. Thus, we propose that:

H3: Evaluation convenience positively affects the customer engagement in food delivery apps.

2.1.4 Transaction convenience

Transaction convenience is defined as the “speed and ease with which consumers can affect or amend transactions” (Beauchamp and Ponder, 2010, p.53). Ease of transaction, flexibility, availability of various payment options is some of the factors which improve transaction convenience (Kumar et al., 2018; Pham et al., 2018). In online purchase consumer need not wait in line which make transaction more convenient (Duarte et al., 2018). It also focuses on consumer’s activity to ensure right to usage the service (Berry et al., 2002). Transaction convenience improves the adoption intention of online services, consumer satisfaction, repurchase (Kumar et al., 2020; Lai et al., 2014; Shankar and Rishi, 2020). Better transaction may have better engagement with the customer.

H4: Transaction convenience positively affect the customer engagement in food delivery apps.

2.1.5 Possession/post possession convenience

Possession convenience is defined as the time and money spend to possess the services based on their choice (Jiang et al., 2013). In case of online platform buyer always have a lack of time between order and possession of the product (Duarte et al., 2018). There may be a risk of non-delivery of the product as well (Srivastava et al., 2021). This risk can be reduced by the service provider by ensuring timely delivery of the product (Shankar and Rashi, 2020). In case of food delivery app, it is also very important for the service provider to deliver the food to the consumer as per the promised time. For example, Dominos promise 30-minute pizza delivery to improve the possession convenience of the customer.

After the possession of the product company also work on the post purchase convenience (Kumar et al., 2020). Post purchase convenience is defined as “to the consumer’s perceived time and effort expenditures when reinitiating contact with a company after purchasing the intended product” (Berry et al., 2002, p.8). The post purchase convenience of interaction with the service provide may motivate consumer to repurchase and provide the positive feedback about the service provider. Therefore, we propose:

H5: Purchase/Post purchase convenience positively affect the customer engagement in food delivery apps.

2.2 Customer engagement and attitude towards brand

An attitude towards brands is the positive or negative reactions of consumers towards a brand (Suki, 2014). According to Girona and Korgaonkar (2014) perceived relative advantage affect attitude towards the services. Customer engagement can positively affect the customer attitude towards a particular brand (Rather and Sharma, 2017). According to Pansari and Kumar (2017, p.296), “is the depth of the attitude toward a brand, which is embedded in the customer engagement framework”. Therefore, we propose:

H6: Customer engagement positively affect the attitude towards brand in food delivery apps.

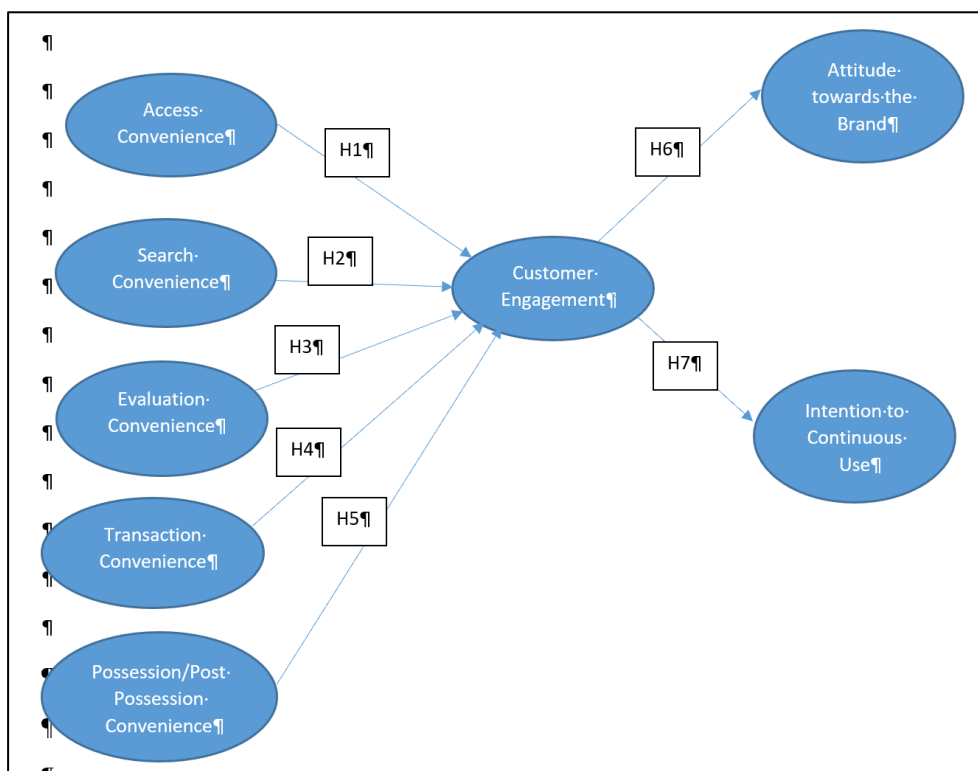


Figure 1. Conceptual Framework

2.3 Customer engagement and intention to continuous use

Highly engaged customer will be interested to buy the brand again (Chan et al., 2014). Customer engagement positively affect the customer loyalty towards a brand (Sprott et al., 2009). Highly engaged customer develops the feeling of attachment with the brand (Vivek et al., 2014). There are various studies which proposed that customer engagement is positively related with the commitment in both online and offline platform (Bowden, 2014; Chan et al., 2014; Guesalaga, 2016; Hollebeek, 2011; Roy et al., 2020). In order to explore this relationship in case of food delivery app we propose:

H7: Customer engagement positively affects the intention to continuous use of food delivery apps.

Following all above mentioned hypotheses, a conceptual framework (Figure 1) has been proposed:

3 Research Methodology

3.1 Research questions

To achieve the objectives, current investigation aims to address following research questions:

RQ1. Which dimension of online service convenience impacts the customer engagement in case of food delivery apps?

RQ2: How customer engagement impacts the attitude and intentions to use food delivery apps?

3.2 Research design

To achieve the objectives and fulfill the research questions of the study, a survey was conducted in the months of July and August, 2022 in National Capital Region (NCR) of India for which questionnaire was developed using the constructs and items from literature (Appendix-A). Following previous researchers, the questionnaire was then shared with shoppers at five shopping malls (Cho et al., 2019) and convenience sampling method was used to gather the data from respondents (Al Amin et al., 2020; Saad, 2020; Saunders et al., 2009). These shoppers were selected on the basis that they had used the online food delivery app once in the past one month to make the selected sample representative of the online food delivery app users (Cho et al., 2019; Lee et al., 2019; Al Amin et al., 2020). The participation was kept voluntary for the positive respondents (Saad, 2020).

3.3 Measurement instruments and data collection

The scales on online service convenience, customer engagement, attitude and intention to use have been adopted from previous researches after modification according to the need of the study. The scale on online service convenience has been adapted from Shankar and Rishi (2020). Further, the five items of consumer's food app engagement were adapted after changes from Islam and Rahman (2016). Three items of attitude and three items of intention to use food apps were adopted after modifications from study (Cho et al., 2019). All the items were measured on a 5-point Likert scale ranging between strongly agree (5) to strongly disagree (1). Pilot testing was conducted on 20 respondents for analyzing the reliability and validity of questionnaire. The responses of pilot study were not included in the final sample so to avoid any repetition (Tak and Panwar, 2017).

Total 161 responses were recorded in return which are found sufficient for further analysis (Bag et al., 2020; Jain et al., 2018; Lean et al., 2009; Sambasivan and Soon, 2007). Table 1 describes the details of the demographic profiles of respondents.

Table 1.
Demographic profile of respondents

S. No.	Demographic profile	No. of respondents	Percentage of response
1.	Age	97	Below 20 years- 60.24%
		41	Between 20-30 years- 25.46%
		20	Between 30-40 years- 12.44%
		3	Above 40 years- 1.86%
2.	Gender	110	Male- 68.94%
		51	Female- 31.05%
3.	Income	16	20,000-30,000 per month- 9.93%
		25	30,000-40,000 per month- 15.52%
		43	40,000-50,000 per month- 26.70%
		77	More than 50,000 per month- 47.85%
4.	Occupation	91	Service- 56.5%
		70	Business- 43.5%
5.	Family type	82	Single person per household- 50.93%
		79	Multiple persons per household-49.07%

4. Results

4.1 Measurement model

The research hypotheses were analyzed using the Adanco 2.2 software which is an advanced analysis of composites for variance-based structural equation modelling (Henseler and Dijkstra, 2015). First the model was accessed for goodness of fit. The results show that value of Standardized Root Mean Square Residual (SRMR) is 0.0696 which is less than the

recommended value of below 0.08 (Henseler et al., 2014). We assessed the measurement model on the basis of indicator reliability and construct, convergent and discriminant validities (Oliveira et al., 2016).

4.1.1 Indicator reliability

The items of Factor loadings, Cronbach’s alpha, Dijkstra-Henseler's rho and AVE are presented in Table 2. The factors loading values are above 0.7 recommended by previous studies (Henseler, Ringle, and Sinkovics, 2009). This shows that indicator reliability is achieved.

4.1.2 Construct validity

Dijkstra-Henseler's rho (ρA) values are also between the acceptable range (Dijkstra and Henseler, 2015; Henseler, Hubona, and Ray, 2016). Chronbach’s alpha represents internal consistency of the scale. All the values of Chronbach’s alpha are above 0.7 meeting the threshold value (Hair et al., 2010). Similarly, the values of composite reliability above 0.7 are acceptable (Fornell and Larcker, 1981; Hair et al., 2010). Since the values of composite reliability and Cronbach’s alpha are meeting the threshold range, the construct validity is achieved.

Table 2.
Measurement Model

Construct	Items	FL	AVE	ρA	CR	α
Access Convenience	ACC1	0.8579	0.6482	0.7343	0.8465	0.7278
	ACC2	0.7782				
	ACC3	0.7766				
Search Convenience	SCC1	0.7700	0.6376	0.7211	0.8406	0.7167
	SCC2	0.8197				
	SCC3	0.8049				
Evaluation Convenience	ECC1	0.8359	0.6325	0.7111	0.8375	0.7087
	ECC2	0.7924				
	ECC3	0.7555				
Transaction Convenience	TCC1	0.8412	0.6529	0.7381	0.8492	0.7333
	TCC2	0.8247				
	TCC3	0.7557				
Possession/ Post-Possession Convenience	PPPCC1	0.8003	0.6867	0.8857	0.9163	0.8613
	PPPCC2	0.8020				
	PPPCC3	0.8629				
	PPPCC4	0.8661				
	PPPCC5	0.8095				
Food App Engagement	FAE1	0.8070	0.6433	0.8618	0.9002	0.8855
	FAE2	0.8164				
	FAE3	0.8133				
	FAE4	0.7785				
	FAE5	0.7946				
Attitude	ATT1	0.8825	0.7690	0.8585	0.9090	0.8505
	ATT2	0.8656				
	ATT3	0.8826				
Intention to Use Food Delivery App	IUFA1	0.8827	0.7654	0.8490	0.9073	0.8469
	IUFA2	0.8754				
	IUFA3	0.8664				

Note: FL= Factor Loading, AVE= Average Variance Explained, α = Chronbach’s alpha, ρA = Dijkstra-Henseler's rho, CR= Construct Reliability

4.1.3 Convergent and discriminant validity

The convergent validity was tested by taking AVE values. All constructs have AVE greater than 0.6 meeting the minimum required value (Fornell and Larcker, 1981; Hair et al., 2010). The discriminant validity was evaluated by two methods: Fornell-Lacker Criterion and Herotrait-Monotrait Ratio of Correlations (HTMT). According to Fornell-Lacker Criterion the square root of Average Variance Explained should be higher than all correlations between every pair of constructs (Chin, 1998) and the results fulfil the minimum requirement (Table 3). The value of HTMT should not be above 0.9 (Gold, Malhotra, and Segars, 2011). In the present research the values of HTMT are less than 0.9 showing no problem of discriminant validity (Table 4).

Table 3.
Fornell-Lacker Criterion (AVE in bold)

Construct	A- Conve- nience	S- Conve- nience	E- Conve- nience	T- Convenien ce	PP- Convenien ce	Food App Engage- ment	Attitude	Intention to Use
A-Convenience	0.6482							
S-Convenience	0.2233	0.6376						
E-Convenience	0.0972	0.1909	0.6325					
T-Convenience	0.1783	0.3565	0.2488	0.6529				
PP-Convenience	0.0996	0.1965	0.2335	0.1799	0.6867			
Food App Engagement	0.2596	0.3798	0.3185	0.4689	0.3623	0.6433		
Attitude	0.1588	0.2411	0.3034	0.3458	0.3506	0.4607	0.7690	
Intention to Use	0.1821	0.2266	0.1910	0.3041	0.3368	0.4303	0.5190	0.7654
Squared correlations; AVE in the diagonal.,								

Note: A-Convenience=Access Convenience, S-Convenience=Search Convenience, E-Convenience= Evaluation Convenience, PP-Convenience=Possession/Post-Possession Convenience, T-Convenience=Transaction Convenience

Table 4.
Herotrait-Monotrait Ratio of Correlations (HTMT)

Construct	A-Conve- nience	S-Conve- nience	E-Conve- nience	T-Conve- nience	PP-Conve- nience	Food App Engagement	Attitude	Intention to Use
A-Convenience								
S-Convenience	0.6615							
E-Convenience	0.4281	0.6135						
T-Convenience	0.5681	0.8106	0.6919					
PP-Convenience	0.3924	0.5525	0.6080	0.5234				
Food App Engagement	0.6403	0.7801	0.7196	0.8579	0.6887			
Attitude	0.5039	0.6200	0.7045	0.7430	0.6859	0.7871		
Intention to Use	0.5406	0.6080	0.5583	0.7014	0.6713	0.7666	0.8524	

Note: A-Convenience=Access Convenience, S-Convenience=Search Convenience, E-Convenience= Evaluation Convenience, PP-Convenience=Possession/Post-Possession Convenience, T-Convenience=Transaction Convenience

4.1.4 Testing of multicollinearity

The values of Variance Inflation Factor (VIF) represent the multicollinearity statistics. In the present model the values of VIF are in range between 1.2553 to 2.6464 which is below 10 (threshold value) recommended by scholars (Hair et al., 2018). This shows no problem of multicollinearity in the model.

4.2 Structural model

The figure II represents the structural model which explains (R²) 43% of behavioral intention to use food delivery app. The hypotheses related to food delivery app engagement H1, H2, H3, H4, and H5 were analyzed and summary is presented in Table 5. The procedure of bootstrapping using 5,000 subsamples was run to finalize and validate the theoretical model (Hair et al., 2017). The hypotheses H1 (beta=0.1638, p<0.05), H2 (beta=0.1551, p<0.05), H3 (beta=0.1492, p<0.05), H4 (beta=0.3353, p<0.001), H5 (beta=0.2672, p<0.001) were supported in explaining the consumer engagement for food delivery apps. Transaction Convenience is the most important construct in explaining the Food App engagement, followed by Possession/Post-Possession Convenience. The food app engagement further explains R²= 46.1% for attitude and 43% for intention to use food delivery app. The hypotheses H6 (beta=0.6788, p<0.001) and H7 (beta=0.6559, p<0.001) were also supported.

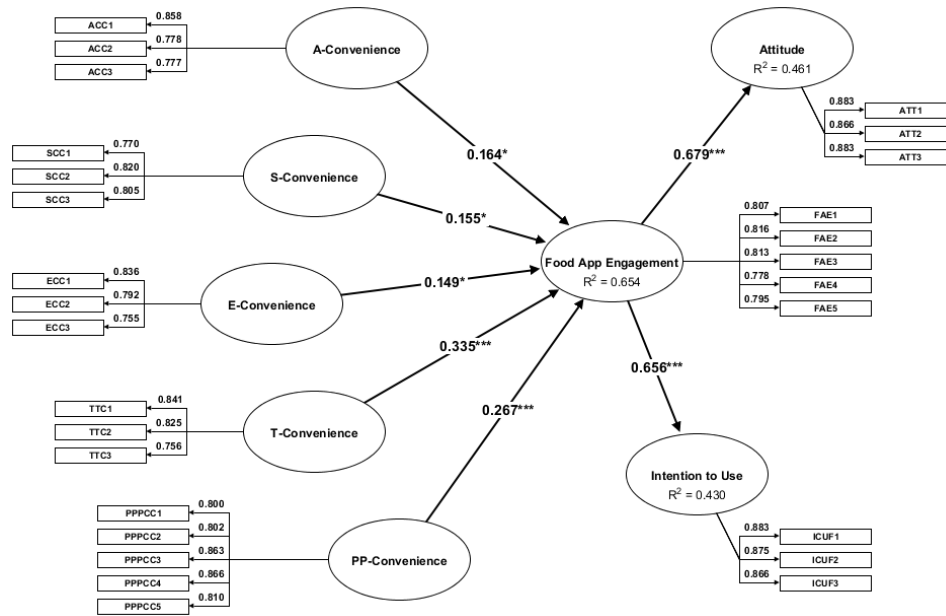


Figure 2. Structural Model

Table 5. Summary of Results

Effect		Standard bootstrap results					Hypothesis accepted or rejected
		Original coefficient	Mean value	Standard error	t-value	p-value	
A-Convenience -> Food App Engagement	H1	0.1638*	0.1619	0.0645	2.5403	0.0111	Accepted
S-Convenience -> Food App Engagement	H2	0.1551*	0.1544	0.0787	1.9711	0.0488	Accepted
E-Convenience -> Food App Engagement	H3	0.1492*	0.1533	0.0682	2.1883	0.0287	Accepted
T-Convenience -> Food App Engagement	H4	0.3353**	0.3339	0.0659	5.0879	0.0000	Accepted
PP-Convenience -> Food App Engagement	H5	0.2672**	0.2672	0.0502	5.3244	0.0000	Accepted
Food App Engagement -> Attitude	H6	0.6788**	0.6799	0.0537	12.6358	0.0000	Accepted
Food App Engagement -> Intention to Use	H7	0.6559**	0.6578	0.0537	12.2078	0.0000	Accepted

Note: *p value<0.05, **p Value<0.000, A-Convenience=Access Convenience, S-Convenience=Search Convenience, E-Convenience=Evaluation Convenience, PP-Convenience=Possession/Post-Possession Convenience, T-Convenience=Transaction Convenience. Note: A-Convenience=Access Convenience, S-Convenience=Search Convenience, E-Convenience= Evaluation Convenience, PP-Convenience=Possession/Post-Possession Convenience, T-Convenience=Transaction Convenience.

5. Discussion, Conclusion, and Implications

The growth of smart phone users has seized the opportunity for the companies to tap customer anytime of the day. In the current scenario of pandemic and to follow the rule of social distancing, customers are more influenced to use their smart phones for their each and every need. It has been proved advantageous for companies of mobile food delivery apps as well. Food delivery apps on mobile not only helps customers to get their desired products on their own comfort but also benefits the companies to enhance their sales without spending anything on promotional schemes. Moreover, it's the convenience that matters most to trigger customers to use any app on mobiles. Present study has captured the same issue and investigated the impact of online service convenience on customer engagement. Further, the study analyzed the role of customer engagement in arousing/generating the attitude and intention to use mobile food delivery

apps. Though, various researches have been performed on the online services convenience, however, none has apprehended the role of factors of convenience on customer engagement.

Further, it has been observed that scant efforts have been made in investigating the role of online service convenience in generating positive attitude and intention to use food delivery apps. To achieve the objectives of the study, respondents were selected from five shopping malls in North India and their responses have been analyzed with the help of structural equation modelling using Adanco 2.2 software. While analyzing the demographic profiles of the respondent, it has been noticed that age of more than 60% of the respondents were less than 25 years and around 68% respondents were male. Further, it has been identified that single person households were using food delivery app more often than those having multiple persons in family. These results are line with the previous studies (Cho et al., 2019; Lehmann, 2016). Income of the family has also been discovered as one of the determinants. It has been found that families with earnings of more than 50,000 are more frequent in using food delivery apps. In addition, families belonging to service class are also found more prone towards using food delivery apps.

Findings of the analysis indicate the significant influence of access convenience, search convenience, evaluation convenience, transaction convenience, and possession/ post-possession convenience on engaging customers. Though, all the factors of online convenience have been found significantly influencing the customer engagement in case of mobile food delivery apps. However, it is worth noticing that transaction convenience and possession/ post-possession convenience were identified as the most influential among all the factors of online convenience. Further, it has been identified that engagement stimulates the positive attitude and intention to use the mobile food delivery apps among customers.

Transaction convenience deals with the entire exchange process. The customers expect their order food transactions to be completed in minimum possible time. It is always better to keep good choice of mode payments. The companies should not get myopic here and should see the transaction convenience not only as monetary transaction but also understand the whole process from order to delivery. If this entire process will be smooth, then it will lead to customer engagement and the customers will have positive attitude towards the food app and intention to use the app in future. Apart from this, customers also want the privacy and security of their personal information shared on the app. The apps should be secure enough so that customers can do the transactions confidently.

After transaction convenience, the possession/ post-possession convenience were found impacting customer engagement the most. The customers want their problems to be resolved in no time. The companies need to proactively identify the problems that may occur during the process of delivery. The companies may train and empower their executives to handle various situations which may lead to serious service failure. Additionally, the companies need to involve and train the tied-up food joints and delivery partners also so that they can keep their rating high. These stakeholders must also be counselled for their keeping their rating high.

Other factors such as access convenience, search convenience and evaluation convenience were also found impacting customer engagement significantly. The customers want to have access to the app as well as the food joints as and when they want. Therefore, app updates must be done when traffic on the app is less and customers should also be informed regarding the same. The timings of food joints must be reflected on app so that customers may have clear idea about opening and closing time of their favorite joints. Moreover, customers should have good filter options to search for their favorite cuisines and the detailed information of same must be provided on app.

The customers also look forward for easy to navigate and aesthetically appealing food delivery apps. Hence, it can be safely said that the access convenience, search convenience, evaluation convenience, transaction convenience, and possession/ post-possession convenience are important factors to drive customer engagement. If the food delivery app will provide all these conveniences to customers then it further will result in positive attitude towards brand and continued intention to use the apps in future.

6 Limitations and Directions for Future Research

The present study is descriptive in nature so future studies may go for longitudinal research. The sample of the present study is drawn from National Capital Region (NCR) of India which may not be representative of entire Indian population. Future studies may be conducted drawing randomly selected samples. The researchers may capture the responses of food joints and/or delivery partners for future studies. Moreover, the present study is carried out on food delivery apps, therefore, future studies may consider other online services. The results of the studies may not be generalized to the other online services because the online service convenience construct is very contextual in nature. Future studies may also look forward to validate of the results of present study in different countries or cross-cultural contexts.

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Appendix

Construct and Source	Items	Items
Access Convenience (ACC)	ACC1	Could avail Food delivery App anytime I want.
	ACC2	Could avail Food delivery App wherever I am.
	ACC3	The Food delivery App is always accessible
Search Convenience (SCC)	SCC1	It was easy to navigate the Food delivery App
	SCC2	I could find what I wanted without having to look elsewhere.
	SCC3	The Food delivery App provides useful information.
Evaluation Convenience (ECC)	ECC1	The Food delivery App provides detailed services specifications.
	ECC2	Sufficient information to identify products on Food delivery App
	ECC3	Provides interactive interface by using icons, images, and moving pictures.
Transaction Convenience (TCC)	TCC1	My food order was completed easily over Food delivery App
	TCC2	It does not take a long time to complete over Food delivery App while ordering food
	TCC3	I felt safe to provide my personal and private data over Food delivery App while ordering food
Possession/ Post-Possession Convenience (PPPCC)	PPPCC1	Any food order problems I experience are quickly resolved over Food delivery App.
	PPPCC2	It was easy to take care of failed transactions over Food delivery App
	PPPCC3	Over Food delivery App, I got exactly what I wanted.
	PPPCC4	Services delivered in a timely fashion over Food delivery App
	PPPCC5	It took a minimal amount of effort on my part to get what I wanted via Food delivery App
Food App Engagement (FAE)	FAE1	Anything related to Food Delivery App grabs my attention.
	FAE2	I like to learn more about this Food Delivery App
	FAE3	I pay a lot of attention to anything about Food Delivery App
	FAE4	I spend a lot of my discretionary time on Food Delivery App
	FAE5	I am passionate about Food Delivery App
Attitude (ATT)	ATT1	Using the food delivery app is useful
	ATT2	I am strongly in favor of ordering food through the delivery app
	ATT3	I desire to use the delivery app when I purchase food
Intention to Use Food Delivery App (IUFA)	IUFA1	I intend to use the food delivery app
	IUFA2	If I have an opportunity, I will order food through the delivery app
	IUFA3	I intend to keep ordering food through the delivery app