

The Antecedents of online food services adoption

Author 1:

Jatin Grover

Xavier Institute of Management & Entrepreneurship
A recognized Research Centre of University of Mysore
Bangalore- 560 100
E-Mail ID: jatin26blr@xime.org

Abstract

This paper tells us more about the attitudes of customers to online services in general and in this some researchers have analyzed online food delivery (OFD) services with customer experiences. Millions of revenues are generated by large food supply firms and these numbers are expected to increase. The purpose of this research is to know about the structural relationship between motivation with simplicity, usefulness of post-use, tactics of price saving, importance of time saving, online sales experience, customer attitude and customers' willingness towards OFD services. The study revealed that in online food delivery services, the quality of food, control, customer support, and order fulfillment affect customer satisfaction. The convenience of electronic food delivery (FD) was noticeable during the global 2020 COVID-19 outbreak, as it promoted customer access to fresh produce and allowed food providers to continue functioning. The study was completely based on primary data. A structured questionnaire was formed which had four parts naming preference, consistency, accuracy and also the choice of preference was prepared. The scale of the sample was 98.

KEYWORDS

Online food distribution, behavior of users, customer retention, incentive for convenience, direction for price efficiency, alignment for saving time.

1. INTRODUCTION

In this 21st century, we see India at a rapid pace where young minds of the country are excelling in the era of automation and innovations. Technology has played a major role in reshaping the food delivery services from device to online ordering and also satisfy the customers ever changing demands, making its way up the ladder. There is a popular phrase "The consumer is God". Customer is an individual who purchases goods or services for his own use for the satisfaction of his needs. Analysing consumer's buying behaviour is the primary factor to success for calculating the profit of the whole supply chain. Consumer behaviour is a very changing field of study. Unless an organization undertakes a constant study of consumer behaviour its marketing decisions and methods may prove to be insignificant.

According to Spykerman (2013), Malaysia has an Internet penetration rate of 67 %. Although the number of users is lower than China, the percentage is higher, which shows that Malaysians in general are more proactive in e-commerce . One of the big players KFC known as Kentucky Fried Chicken (KFC) started delivery services in Malaysia in 2012 to improve their quality of service more. As for online food ordering, Kimes (2011) found that 44 percent of adults in the US have ordered food online and 23 percent of large food chains focus on providing delivery services. There are two types of retailers that provide online ordering. The first are retailers themselves. This category is largely comprised of fast-food stores such as Pizza Hut, McDonalds, Domino's Pizza, Kentucky Fried Chicken and so on. The second category is composed of many different restaurant mediators that provide delivery services for a broad range of restaurants. Examples include Food Panda, Zomato, Swiggy etc. Consumers prefer to use online services because comfort, usage effectiveness and other motives. The timesaving factor increases the value of services offered because it reduces the amount of time and effort consumers waste to purchase a product and has been proven impressive. Even though OFD is not as popular as other means of ordering food still the number of users are steadily increasing .

Although the most common ordering method is the telephone, orders through restaurant websites and multi-food websites have reached a significant portion at 22.9 percent This research attempts to tell both the online medium and food delivery services for retailers and marketers to bring more effective strategies to in this market and be more helpful to the customers. Hence, this study summarizes the current consumer behavioural models by including several main factors to explain the willingness to use OFD services.

2. LITERATURE REVIEW

Performance. Expectancy-PE: The extent to which a person believes that using a device can assist him or her in improving job performance is referred to as performance expectancy.

Social Influence-SC: Social influence refers to deliberate and unintentional efforts to change another person's beliefs, behaviors, or actions. Unlike persuasion, which is normally deliberate and requires the goal to have some degree of awareness, social influence may be unintended or unintentional.

Hedonic Motivation-HM: Motivation is the process of starting, maintaining, and guiding goal-oriented behaviors. It is what motivates you to take action, whether it's having a glass of water to quench your hunger. The biological, mental, social, and cognitive forces that trigger actions are all part of motivation.

Customer Retention(CR)- The extent to which these online apps provide the services and further helps them to retaining their customer and not shifting towards the other app. It is very important in any business.

Perceived security& Price saving (PS): Perceived security is defined as the extent to which a mobile payment user assumes that financial and personal information transactions on mobile payment platforms are safe.

2.1 Performance Expectancy-PE

PE is explained as how much innovation will provide benefits to buyers in carrying out certain exercises (Venkatesh 2012, p.159). The meaning of the positive connection between PE and BI has been recognized in the accompanying settings like expectation to utilize installment framework by means of cell phone, portable shopping applications, computerized installment frameworks, and versatile innovation (Morosan and DeFranco, 2016; Savita Panwar, 2017; Sivathanu, 2018; Venkatesh 2012); goal to embrace m-banking (Al Mashagba and Othman Nassar, 2012; Baptista and Oliveira, 2015; Oliveira 2014; Yu, 2012); aim to utilize Internet advertising (Mohd-Isa and Wong, 2015) and in Internet banking (Martins 2014; Sanchez-Torres 2018; Sok Foon and Chan Yin Fah, 2011); aim to utilize another innovation administration (Lee and Song, 2013; Venkatesh and Zhang, 2010). The positive connection between PE and BI recognized in such examinations is seen to be steady with results found in various nations. Here, expectation to make online buys has been examined (Escobar-Rodríguez and Carvajal-Trujillo, 2014. Musleh 2015; Pascual-Miguel 2015; Sanchez-Torres 2017; Sing and Matsui, 2017). Despite the wide agreement on PE's illustrative control over different levels of the UTAUT model, writing surveys that have examined the PE and BI relationship depicts contrasts in the commitment of this variable over BI.

The audits by Khechine (2016) and Williams (2015) tracked down that in 87% (71 of 62) and 80% (93 of 116) of the examinations wherein the PE and BI relationship was assessed, PE precisely and emphatically anticipated BI on appropriation and utilization of innovation. In any such case, these audits were led with decreased and generally assorted examples utilizing the UTAUT model in various fields. It is fascinating to bring up that audits in explicit mechanical settings by Zhang (2018) in Electronic Banking and Sanakulov and Karjaluo (2015) in Mobile appropriation showed a lower test weight mean connection between PE and BI. So, these creators prescribe to have further exploration of the relationship to decide more absolutely- its commitment in explicit mechanical settings. Along these lines, it is suggested that:

H1: *Performance expectancy will positively influence consumers behavioral Intention to online food service adoption.*

2.2 Social Influence-SI

SI is characterized/explained as the degree to which customers see that significant others (e.g., loved ones) believe that they should utilize a specific or particular innovation (Venkatesh 2012, p. 159). Thinking about the S. Dakduk Heliyon 6 (2020) e054513 discoveries of a few writing audits and meta-examination, SI is just another variable that efficiently and essentially anticipated BI (Khechine 2016; Sanakulov and

Karjaluoto, 2015; Williams 2015) with a mid-range impact on account of the reception and utilization of innovation (Khechine2016). yet with a high impact on account of the aim to utilize e-banking (Zhang2018). SI has been contended to have a positive yet critical effect on the specified goal i.e., to utilize portable shopping applications, versatile innovation, portable shopping administrations, advanced installment frameworks (Savita Panwar, 2017; Sivathanu, 2018. Venkatesh 2012, Yang, 2010) and the aim to accept m-banking, Internet banking, Web advertising, and use of installment framework by means of cell-phone (Al Mashagba and Othman Nassar, 2012; Mohd-Isa and Wong, 2015; Morosan and DeFranco, 2016; Shaikh and Karjaluoto, 2015; Sok Foon and Chan Yin Fah, 2011; Yu, 2012). Moreover, SI was found to impact both the expectation to utilize another innovation administration (Lee and Song, 2013) and online business (Escobar-Rodríguez and Carvajal-Trujillo, 2014; Musleh 2015; Pascual-Miguel 2015; Sanchez-Torres 2017). In any such case, as per Sanchez-Torres and Arroyo-Canada (2016), the SI and BI relationship is the most overlooked variable that is likely to be dependent on the nation of cause in electronic trade. Current proof against this contention is upheld by existing contrasts between created nations and poor or developing nations. Few creators contend that social impact is foreseen to affect the expectation to utilize internet business when its dissemination in a nation is at beginning levels and this impact will decrease as the advanced proficiency decline and the web-based business piece of the pie increases (Sanchez-Torres and Arroyo-Canada, 2016). Moreover, low-pay families are portrayed by bigger families comprising of a rigorous mix of family cores and ages that live together in a similar actual space. This exceptional dynamic situation presents a critical social impact on shopping practices since a huge piece of the items they buy are merchandise and enterprises that are shared by numerous individuals in the family, so the conference also, impact of individuals from the prompt climate would be an inherent segment of the choice cycles. Likely, it is sensible to expect that conceptualization of social impact connected to people have higher pertinence in shoppers with less involvement in innovation and conditions with less advanced development. Therefore, it is appropriate and suggested to proceed with the investigation of this variable with regards to arising economies. Specifically, it is useful to investigate the connection between the countries innovation improvement and the buyers profile. Along these lines, it is suggested that:

H2: *Social influence will positively influence consumer's behavioral intention to accept Online food delivery apps.*

2.3 Hedonic Motivation-HM

HM alludes to the joy received from innovation usage (Brown and Venkatesh, 2005) and mirrors customers impression of this current experiences expected diversion. Observations recommend that in the specific circumstance S. Dakduk, Heliyon 6 (2020) of the utilization of data advances. indulgent advantages are significant drivers of aim to utilize or receive the utilization of innovations (Alalwan 2016; Morosan and DeFranco, 2016; Poong 2016; Venkatesh 2012). Also, Savita Panwar (2017) found that HM fundamentally affected the aim to utilize a portable shopping application. Sivathanu (2018) discovered that HM altogether anticipated goal of utilizing advanced installment frameworks by Indians, being the best indicator of conduct aim. Similarly, it additionally has been seen in arising economies that MH expands the goal to utilize m-banking in Mozambique (Baptista and Oliveira, 2015), and advanced installment framework in India (Sivathanu, 2018), prompting that utilizing innovation is a lovely and exciting experience that predicts the goal to utilize it. This permits us to propose the accompanying theory:

H3: *Hedonic motivation will positively influence consumer's behavioral intention to Accept online food services.*

2.4 Customer Retention

In this customer retention one has to totally satisfy their customers upto their needs so that they are happy with the services one is providing and can carry on with the same. Such in case of online food delivery one should always deliver food within time, quality of food should be adequate after reaching to the customer etc. Also, Reichheld and Kenny (1990) specified six factors as imperative to improving retention: senior management commitment; a customer-focused culture in which all employees and managers focused their full attention on customer satisfaction; retention information systems that tracked and analyzed the root causes of defections; empowerment of front line employees to take actions that provided immediate customer satisfaction; continuous training and development; and incentive systems based on customer retention. They found that the customer's perception of service quality depends upon the size and direction of the gap between the service the customer expects to receive and what he or she perceives to have been received. The magnitude of this gap (which can be either positive or negative) was determined by four interrelated variables: (1) the difference between actual consumer expectations and management perceptions of those expectations; (2) between management perception of expectations and the translation of those perceptions into service quality specifications; (3) between service quality specifications and service delivery; and (4) between both service quality specifications and service delivery, and external communications to customers.

H4: Customer Retention will positively influence consumer's behavioral intention to accept Online food delivery apps.

2.5) Perceived Security & Price saving-PS

PS has been treated as the shoppers view of an E- framework expected for making monetary exchanges (Shin,2010). This discernment additionally incorporates the dependability of installment techniques just as the security components for sending and putting away touchy individual information (Eid, 2011). All the more explicitly, saw security induces the clients view of vender's abilities to fulfill a client's wellbeing needs (Musleh2015) or client's convictions about the security of individual data and its proper dealing with and administration when making electronic exchanges (Flavian and Guinalú, 2006). It additionally deduces seen security, which is related with the dealer's capacity to ensure client secret data when conducting an electronic exchange (Musleh2015), which is additionally identified with legitimate prerequisites also, great acts of individual data the board (Flavian and Guinalú, 2006). Exploration model of speculation. S. Dakduk Heliyon 6 (2020), Morosan and DeFranco (2016) tracked down an immediate connection between client's interests about data protection and the aim to utilize an installment framework through cell phone applications: the higher the client's concern, the lower the goal for utilizing this installment framework.

Then again, saw security was the essential indicator of Jordanians' expectation to receive m-banking administrations (Al Mashagba and Othman Nassar, 2012), as it was found to have an immediate and constructive outcome on the goal to utilize versatile installment (Shin, 2009). It was likewise found to have a roundabout sway on the aim of Colombian clients to utilize e-banking, through an immediate and constructive outcome on saw trust (Sanchez-Torres2018) what's more, on the aim to utilize interpersonal interaction through the immediate effect it has on mentality (Shin, 2010). In any case, Gupta (2017) found that goal to embrace m-banking was decidedly connected with the client's view of control and contrarily

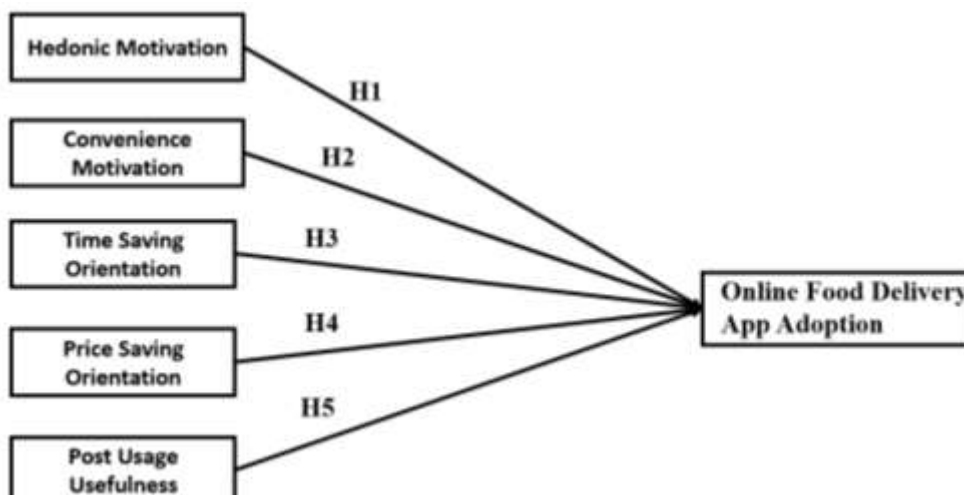
connected with apparent danger, however the degrees of safety didn't influence apparent danger or control. Unmistakably the restriction of pay is a reality for BOP purchasers. The way that their need utilization needs are focused on the fundamental necessities doesn't demonstrate that their dynamic cycles are basic (D'Andrea2004). The deficiency of cash or an extortion circumstance in a computerized exchange in this area exceptionally affects the family's funds. Consequently, it is fundamental to comprehend the impacts of this variable and its commitment corresponding to different factors in the model. In this manner, it is recommended that:

H5: *Perceived Security and price saving will positively influence consumers behavioral intention to Online food service adoption.*

METHODOLOGY & HYPOTHESIS

First of all, during this paper a questionnaire was made which helped us to know about the behavior/responses of customers with regard to the online food delivery system. In this research paper, qualitative research methodology is being used as it offers a much lengthy textual description of how people experience a given research topic. This technique is also used to gather data and people's views on their personal and unique points of view on a subject. The data collection tool used consists of a set of open-ended questions.

- Hedonism is the contrast of rationality (to purchase a product efficiently), which may be referred to as the desire to have fun and be playful.”
- Prior online purchase experience
A person's online experience includes his involvement, cognitive process, flow and schema.
- Time saving orientation
The time that online shopping save is a utility for customers. A customer sees online shopping as useful because it is able to save time, reduce efforts, and offer expanded store hours and efficient checkouts.
- Price saving orientation
Online consumers have the ability to compare prices by browsing different sites/apps and the one which is able to offer a lower price will be perceived as the more useful and more used.
- Convenience motivation and post-usage usefulness
When a user comes across a new technology, there will be several factors that affect how they come to accept and use the technology. However, post-usage usefulness and convenience motivation supersedes perceived usefulness and perceived ease of use.



❖ DATA ANALYSIS**Linear Regression Analysis**

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.459	.356		-1.290	.199
	Price Saving Motivation	.294	.065	.278	4.501	.000
	Hedonic Motivation	.281	.068	.248	4.168	.000
	Convenience Motivation	.457	.073	.398	6.231	.000
	Quality Orientation	.268	.066	.238	4.046	.000
	Post Usage Usefulness	.018	.079	.014	.229	.819

a. Dependent Variable: Online food service adoption

H1: There is a significant influence of Hedonic Motivation with β -coefficient =.248, t-statistics=4.168, ρ <0.05 towards online food delivery adoption.

H2: There is a significant influence of Price saving Motivation with β -coefficient =.278, t-statistics=4.501, ρ <0.05 towards online food delivery adoption.

H3: There is a significant influence of Convenience Motivation with β -coefficient =.398, t-statistics=6.231, ρ <0.05 towards online food delivery adoption.

H4: There is a significant influence of Quality Orientation with β -coefficient =.238, t-statistics=4.046, ρ <0.05 towards online food delivery adoption.

H5: There is a significant influence of Post Usage Motivation with β -coefficient =.014, t-statistics=.229, ρ <0.05 towards online food delivery adoption.

Model Summary

Model	R	R Square	Adjusted Square	Std. Error of the Estimate
1	.745 ^a	.555	.538	.89520

a. Predictors: (Constant), Price Saving Motivation, Hedonic Motivation, Convenience Motivation, Time Saving Orientation, Post Usage Usefulness

The model summary shows the R-square (Coefficient of determination) value = 0.555 which indicates that the model is having medium effect on dependent variable. As per Hair et al (2012) the R-square value ranging from 0.25-0.49 is considered as weak, 0.50-0.74 is considered as medium and > 0.75 is considered as strong effect on dependent variable.

Findings:

The beta values for each independent variable are:

Convenience = .398

Price saving = .278

Hedonic = .248

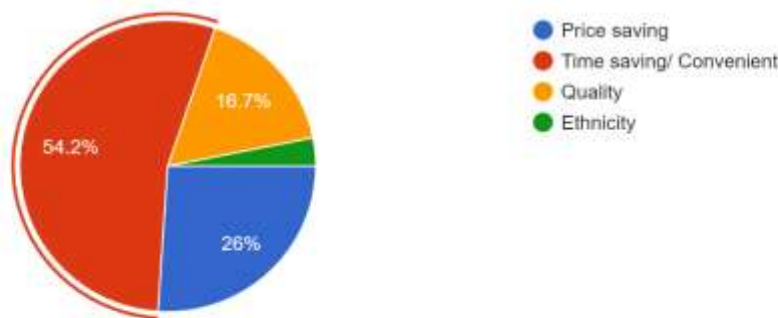
Quality = .238

Post usage = .014

It can be seen that most of the people use online food delivery apps for the cause of convenience it provides to the customer than that of other factors such as price saving, quality etc.

7. Reason for your preferred app

96 responses



➤ Research method and data analysis

Collection of data is prepared to search regularities, patterns and causal relationships to create generalizations about them. Non-probability sampling method was selected. This approach is selected because the population is not known, the sampling frame is not available, and data collection can be done more quickly at a lesser cost in marketing research. Questionnaires are used in the data collection process for this research. Questionnaires were selected due to various advantages such as cost advantage, greater geographical coverage, provides anonymity and to reduce the biasness through the pressure an interviewer can give. The questionnaire was designed in two sections. In the demographics section, there were a total of seven variables: gender, age, nationality, ethnicity, highest level of education, attitude towards OFD services usage frequency, and Usage Duration. The second section of questionnaire include the research variables that were adopted from previous studies. The scales used in second section was nominal, as the 5- point Likert scale was primarily adopted. It ranges from Strongly Disagree to Strongly Agree. According to Dawes (2007), a 5 or 7-point Likert scale is more likely to produce slightly higher mean scores as compared to a 10-point scale, which makes comparing data a much easier process. Furthermore, common method variance (CMV) was considered.

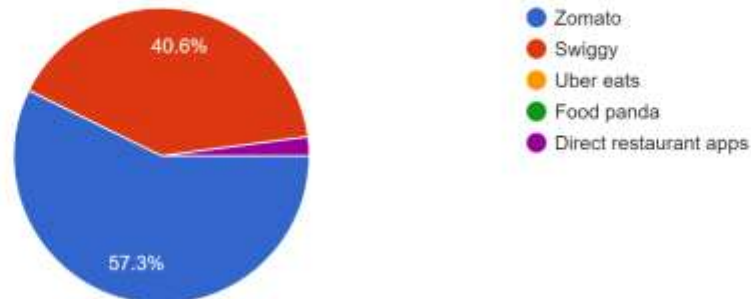
❖ RESULTS

1. This paper tells us about the feedback and usage of the people of these online food delivery system apps. Under the analysis part, the calculations are done on the basis of categories such as time saving, price saving, convenience, post usage etc. After doing the analysis part from the data we collected, it can be said that most of the people are using these online apps because of the convenience it is providing to them and they are finding it very time consuming. So, for the betterment of our app and get more and more better feedbacks and responses we must give the superiority of convenience to our users.

- The respondents were also asked about their favourite online food ordering app in order to analyse that app and achieve our study goal. It was found that Zomato and Swiggy were very biased in reference to other apps. Zomato is leading the way for the time but both of the apps are having good competition in between because of the services it is providing to their users.

5. Most preferred food delivery app

96 responses



- H1: There is a significant influence/relationship/impact of price saving on the users using the online food delivery apps with Beta value equals to .278, t -statistics = 4.501 and $p <= 0.05$. Hence it has significant impact on the users.
- H2: There is a significant influence/relationship/impact of hedonic motivation on the users using the online food delivery apps with Beta value equals to .248, t -statistics = 4.168 and $p <= 0.05$. Hence it has significant impact on the users.
- H3: There is a significant influence/relationship/impact of time saving/ convenience on the users using the online food delivery apps with Beta value equals to .398, t -statistics = 6.231 and $p <= 0.05$. Hence it has the most significant impact on the users.
- H4: There is a significant influence/relationship/impact of quality on the users choosing the online food delivery apps with Beta value equals to .238, t -statistics = 4.046 and $p <= 0.05$. Hence it has significant impact on the users.
- H5: There is no significant relationship/impact of post usage on the users for choosing the food app as the beta value is .014 and $p = .819$ which is greater than 0.05. Hence it has no influence with the users.

❖ CONCLUSION

We can conclude from the paper that there are several factors which affect the customers for choosing an online food delivery app such as quality, time saving, price saving etc. but the factor affecting the most is the convenience provided to customers and their precious time saved when ordering the food. An online food ordering system is developed where the customers can make an order for the food and avoid the hassles of waiting for the order to be taken by the waiter. Using the application, the end users register online, read the E-menu card and select the food from the e-menu card to order food online. Once the customer selects the required food item the chef will be able to see the results on the screen and start processing the food. There are also some domains where still the online apps are lacking and customers want more from them for them such as innovation. People want these apps to bring in more innovation for the betterment. With online ordering on-board we can enrich the customer experience by making the process of 'placing orders' a lot easier. It will show that you value your customer's time. Online ordering will boost your productivity by eliminating the inefficient process of taking orders. In conclusion an online food ordering system is proposed which is useful in small family run restaurants as well as in places like college cafeteria, etc. This project can later be expanded on a larger scale. It is developed for restaurants to simplify their routine managerial and operational task and to improve the dining experience of the clients. This also helps the restaurant owners develop healthy customer relationships by providing reasonably good services.

❖ LIMITATIONS & RECOMMENDATIONS

These findings have certain drawbacks in terms of generalizability. For example, there are many antecedents of online food apps but we have taken just some such as price saving, time saving, offers etc. Also, the future

research model may include additional factors in order to fulfil additional demands of upcoming generation. Within the limits of those models, the effects of multiple mediator variable may also be investigated.

We have taken a sample of around 100 people because reaching the entire population would be difficult so convenience sampling was chosen. This is the second drawback of study. As a result, extrapolating the results from this analysis is impossible.

Some recommendations for future research could be made as a result of this report. This study took place entirely in Bengaluru, India. Furthermore, the research model could be put to the test by conducting cross-cultural study with people from all over the world.

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